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THE MAIN DIRECTIONS OF DEVELOPMENT OF THE TARIFF SYSTEM IN RAILWAY TRANSPORT

Introduction

In world practice, it is considered as the only integrated component of the international supply chain system for trucks. Their effectiveness is considered to be the achievement of the synergistic effect of their interrelated components. It is well known that synergy is a science and technology aimed at increasing the efficiency of distribution, production and sales in the field of logistics in the face of other methods of management. Their structurally mutually beneficial coordination in the delivery of goods and information flows and provides an icon to reduce stagnation due to the appropriate increase in the competitiveness of the enterprise, which is also very important in times of crisis.

Analysis of the efficiency of railway transport the lack of a system and the fact that this system lags behind foreign industries in terms of production and technology at least 15-20 times, requires radical reform in this area. The logistical approach to the reform of the railway network requires the competitiveness of the network, the transition to a new tariff system, the creation of a system with equal economic benefits for both consumers and service providers.

Analysis and results

The main method of regulating railway transport tariffs is the establishment of tariffs or the establishment of their minimum and maximum limits through constant indexation of existing tariffs based on price list № 10-01. This system was developed and put into practice in 2003.

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− the following conclusions were drawn from the study of tariffs in the railway transport system:

− the tariff system does not cover the country's railway transport. It covers only the activities of JSC "Uzbekistan Railways", designed for the monopoly market, and does not provide for structural reforms that will create new conditions;

− the tariff system causes a lot of complexity and misunderstanding among users due to the fact that it is not coordinated on the specific factors and conditions that cause tariffs;

− the overall level of tariffs is high and also unreasonably indexed, given the development system;

− regulation of tariffs and the general system is not developed in a convenient way, taking into account market conditions;

− errors in the equation on the main factors are observed;

− tariffs do not include adequate incentives and quality development to increase the efficiency of private transport.

The following are the shortcomings of the system of tariffs for freight transportation by rail, which are viewed by consumers, and as a result of their implementation on the basis of logistics practices, the quality and efficiency in the industry is declining. № The 10-01 price list has remained only two different basic blocks in recent years after several changes. It is observed that the tariffs for the same type of transport services differ radically from each other (Table 1).

Table 1

Basic structural comparison of price list blocks № 10-01[1]

	Section 2	Section 3
Basic tariff status	**Transportation of export and import**	**Transportation of export and import**

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[1] The results of the research were developed by the author.

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	cargo through domestic transport and seaports	cargo by land
1. Carried out on the basis of the general tariff "consisting of wagons" (the tariff is divided into two parts)	Yes	No
2. Optimization on three tariff classifications	Yes	No
3. Apply the minimum weight of the increase in the consideration of tariffs	A separate point of view on each tariff nomenclature	Consolidation of loads by main groups (17 cases)
Unified Tariff and Statistical Nomenclature	Yes (several cases)	In another abbreviated view
Average rate of tariffs as a percentage	100	More than 150

The problem is that the concepts of "domestic" and "international" transportation are not clearly defined. In our opinion, if the transportation of goods begins and ends in the territory of the country, it would be legally illogical to apply the concept of "international transportation". Accordingly, international tariffs should not be applied to goods, regardless of whether they are export-import.

A comparative analysis of the situation with rail and road transport shows that there is a huge difference between them: the transportation of small consignments of goods up to 2000 km by rail lags behind the road transport by 10-15 times; shipping in wagons is approx 5-10 times less. In particular, when transporting goods over distances of 200-500 km, railway transport lags significantly behind in terms of time.

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Today, about 80 percent of shipments across the country in the railway system are ordinary shipments. However, their average speed is 20-25 km per hour. This figure is 70 km per hour in Europe. It should be noted that it is incomparably low and requires radical reform of the management and organizational structure of the railway transport sector. The problem of reducing the time of delivery of goods in transport poses a task not only for users but also for transport service providers, including the lack of wagons, a decrease in production, an increase in cost.

In order to increase the impact of delivery times, the following should be taken into account when setting tariffs:

− identify several delivery criteria for the timing of delivery of goods and coordinate their diversity according to the tariff, for example, the timing can be defined as within the norm, expedited, immediate;

− setting the standard speed depending on the main routes or routes of shipment;

− establishment of administrative incentives for the continuous implementation of measures to reduce the duration of the movement of goods. Administrative incentives can be implemented as a state order, which sets tasks to increase the speed of use of freight cars.

Successful use of container transportation technology, which improves the quality of delivery in alternative and competitive transport systems, as well as logistical and economic errors in the field of railway transport services in the case of reasonable tariffs - this leads to reduced demand for the industry.

Table 2 shows the mechanism for applying tariffs for rail services for the transportation of relatively heavy coal in Germany using an integrated logistics approach. This approach gives users of railway transport services (shipper, consignee, forwarder) an additional opportunity to plan freight transportation. At the same time, it manages to build the most reasonable supply chain and model.

Table 2

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Tariffs for railway services in Germany (system of reduction of tariffs for coal transportation on direction trains)

The net weight of the wagon was not less than one ton	Reduction of coal transportation costs on scheduled trains as a percentage			
	three times a week	three times a week	on weekdays	once every two days
900	9,0	13,0	15,0	17,0
1100	16,0	21,0	23,0	24,0
1300	20,0	25,0	27,0	28,0
1600	23,0	28,0	30,0	31,0

According to the table, in Germany, discounts on the cost of transporting coal on direct trains are up to 30% depending on the number of flights and the volume of production. It should be noted that to date, the structural reform of the railway transport network has not found its essence, but in other cases leads to further confusion in terms of freight tariffs. It is advisable to confirm the correctness of the choice made in the delivery of goods with technical and economic reports based on the analysis of costs associated with the transportation of different types of transport. This selection criterion also serves to some extent in solving the problem of optimizing the cost of delivery of goods in mixed transport (Table 3).

Table 3

Specific features of freight delivery cost optimization[2]

Selection criteria	Type of transport				
	Railway	Water	Car	Pipe	The weather
Speed	average	minimum	high	low	maximum
Cost level	average	lowest	low	low	highest

[2] The results of the research were developed by the author.

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			highest	
Possible assortment of goods	highest	low highest	minimum	very limited	partially limited
Number of markets served	big	limited	unlimited	very limited	partially limited
Delivery reliability	average	low	goof	high	average

The wide range of transport and logistics services and their wide range of variables in terms of quality, their impact on the competitiveness of services and cost, as well as other factors make it necessary for the company to have a clear, specific strategy in the field of logistics services to consumers requires A comparative analysis of transportation costs by modes of transport is presented (Table 4).

Table 4

Comparative analysis of freight costs by modes of transport[3]

Cost of transporting 20 tons of cargo per 1 km (by example of textiles)				
Uzbekistan	**Kazakhstan**	**Kyrgyzstan**	**Tajikistan**	**Turkmenistan**
2,45 $	1,70 $	1,55 $	1,35 $	0,92 $
Cost of transportation of 1 standard wagon cargo per 1 km (up to 100 km)				
Uzbekistan	**Kazakhstan**	**Kyrgyzstan**	**Tajikistan**	**Turkmenistan**
7,29 $	4,24 $	2,65 $	6,83 $	2,65 $
Number of procedural documents required for export and import				
10/11	10/12	9/10	11/12	6/5

If we pay attention to the analysis of prices on a comparative basis, we can see that the costs of domestic producers are somewhat higher. For example, to deliver a standard wagon load (60 tons of textiles) per kilometer, you have to pay $ 7.29 to the rail transport service. The same figure is $ 4.24 in neighboring

[3] The results of the research were developed by the author.

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Kazakhstan, $ 3.65 in Kyrgyzstan, $ 6.83 in Tajikistan and $ 2.65 in Turkmenistan. This has a negative impact on the competitiveness of our country's railway transport in international transport. Expenditures on the cost of transport services from 2009 to 2019 were studied (Table 5).

Table 5

Changes in the cost structure of transport,[4] %

№	Indicators	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
I.	**Transport**	100	100	100	100	100	100	100	100	100	100	100
1.1	Salary costs	8,4	6,7	7,4	6,9	6,3	6,1	6,4	7,4	7,4	7,5	8,3
1.2	Depreciation	3,6	7,1	9,9	9,3	9,6	9,1	8,1	8,4	9,6	10,3	12,3
1.3	Material costs	48,6	41	45,6	41,6	49,2	56,1	51,9	52,3	48,5	44,8	37,0
	Hence, fuel (energy) costs	11,8	9,3	9,8	11,3	11,8	10,3	9,4	11,5	10,4	9,3	9,6
1.4	Other expenses	39,4	45	37,1	42,2	34,9	28,7	33,6	31,9	34,5	37,4	42,4

It is known that about 9.6% of the total cost of work performed by vehicles is spent on fuel (energy) and lubricants. Consumption of fuel resources in the transport sector of Uzbekistan, in relation to this value, forms the total cost of services. At the same time, wages, which are part of the cost of transport, make up 8.3% of total expenditures. This figure is 50-52 percent in the EU, while other costs are 40.2 percent. Depreciation is 12.3% in Uzbekistan and 6-7% in

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[4] The results of the research were developed by the author.

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the European Union. The logical conclusion of scientific research work often ends with the identification of realistic amounts of economic or social efficiency that can be achieved as a result of the proposed science-based measures.

In determining the economic effect that can be achieved as a result of the practical application of the scientific proposals discussed and recommended in the previous chapters, it is advisable to first approach the case on a case-by-case basis. For example, in calculating the economic efficiency is the efficiency of the tariff for the carriage of goods by rail:

$$E_{rwk} = \frac{\sum_{i=1}^{n} I_i}{n * \sum_{i=1}^{n} P_i} - \frac{I_{min}}{P_{min}}, sum/tkm \quad (1)$$

Here:

I_i – total income of the railway enterprise in the form of i, sum;

P_i $-$ i- railway transport work, *tkm*;

I_{min} $-$ i- income of the enterprise with the tariff of the smallest railway transport enterprise, sum;

P_{min} $-$ the amount of business transport work of the enterprise with the smallest railway transport enterprise number i, *tkm*.

Using this indicator, the amount of economic efficiency that can be obtained from the total volume of freight transported by rail can be determined by the following formula:

$$\mathrm{E^{rwk}} = (S - S') * \mathrm{P^{rwk}} = (\frac{\sum_{i=1}^{n} I_i}{n * \sum_{i=1}^{n} P_i} - \frac{I_{min}}{P_{min}}) * P^{\mathrm{rwk}} = E_{\mathrm{rwk}} * P^{\mathrm{rwk}} , sum \quad (2)$$

here:

$\mathrm{P^{rwk}}$- amount of total transport work in railway transport, *tkm.*

Thus, as a result of the implementation of an integrated information management system, the exchange of data in railway transport enterprises will be accelerated and the cost of transportation will be reduced. Given the importance of electronic computers in reducing the cost of railway transport

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enterprise in determining such a change, the share of cost reduction is determined by the following formula.

$$\Delta E_{\text{information of inegration}} = \left(\left\{ \frac{\sum_{i=1}^{n} D_i}{n * \sum_{i=1}^{n} P_i} - \frac{D_{min}}{P_{min}} \right), \text{ sum/tkm (3)} \right.$$

here:

D_i i – number railway company transport case, tkm;

D_{min} – enterprise income with the lowest railway company tariff, sum;

P_{min} – the amount of transport work with the lowest railway company tariff, tkm.

Conclusions and suggestions

Based on the above considerations, a six-step approach to improving the tariff system in the transport and logistics system was proposed:

1. Assess the general situation in the services market in terms of logistics;

2. Clear definition of goals and objectives and principles of tariff regulation in the transport system;

3. Establishing the demand for transport and logistics services in the links of the logistics system in places where transport facilities are dense and high speed;

4. Formation of competitive transport logistics systems taking into account the value in the logistics chain and assessing their impact on the final cost of the finished product;

5. Establishment of maximum tariffs in the transport and logistics system, taking into account government support and other factors in tariff regulation;

6. Evaluate the effectiveness of tariff regulation mechanisms in the transport system.

In short, the development of a successful tariff policy in the state regulation of the tariff system is a very important factor not only for structural reforms in the field of railway transport, but also to create the opportunity to achieve the expected economic benefits of macro and micro logistics.

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List of used literature

1. Fayzullayev J.S. Improvement of Economic Efficiency of Development of Railway // Asian Journal of Technology & Management Research (AJTMR) ISSN: 2249 –0892 Vol9 Issue–2, Dec -2019. http://www.ajtmr.com/papers/Vol9Issue2/Vol9Iss2_P9.pdf

2. Fayzullayev J.S. The economic-mathematical model of the organization activity of the modern transport-logistics system. // Бюллетень науки и практики – Bulletin of Science and Pracrice научный журнал (scientific journal). 2018. №5 (4). C. 345-352. DOI:10.5281/zenodo.1147072. Impact Factor (5) GIF – 0.454; (21) Info Base Index – 1.4; (17) OAJI – 0.350, (43) (UIF) – 0.1502; (4) JCR – 1.021. http://oaji.net/articles/2017/3996-1526585902.pdf

3. Fayzullayev J.S. 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. https://scientific-conference.com/images/PDF/2018/49/International-scientific-review-7-49-ISBN.pdf

4. Fayzullayev J.S., Increasing the efficiency management of 3PL and 4PL logistics companies in the railway system. // «Стратегия действий Республики Узбекистан: макроэкономическая стабильность, инвестиционная активность и перспективы инновационного развития» Международная научно-практическая конференция. Тошкент. 2018. 28-29 мая. C.37-42. http://tsue.uz/wp-content/uploads/2019/05/4.-Fayzullayev_J_S_increasing-the-efficiency-management-of-3pl-and-4pl-logistics-companies-in-the-railway-system.pdf

5. FayzullayevJ. (2020). Effectiveness of modern methods in the development of the integration transport systems. *Архив научных*

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исследований, *1*(3).

https://tsue.scienceweb.uz/index.php/archive/article/view/3892

6. Fayzullayev J.S. Effectiveness of modern methods in the development of the integration transport systems // Asian Journal of Technology & Management Research (AJTMR) ISSN: 2249 –0892 Vol9 Issue–2, Dec -2019 62-65. https://saarj.com/wp-content/uploads/SAJMMR-JULY-2020-FULL-JOURNAL.pdf

7. Fayzullayev J.S. Theoretical Aspects of the Transport Logistics System Management // Asian Journal of Technology & Management Research (AJTMR) ISSN: 2249 –0892 Special Issue–2, Sep -2019. http://ajtmr.com/papers/SplIss2/SplIss2_8.pdf

8. Faizullaev Javlonbek Sultonovich. (2020). Transportation and logistics system: problems and solutions. *Archive of Conferences*, *10*(1), 50-54. Retrieved from https://www.conferencepublication.com/index.php/aoc/article/view/424

9. Fayzullayev J.S. Problems And Status Of Efficiency Of The Transport And Logistics System In The Railway Network , Archive of Conferences: Vol. 13 No. 1 (2021): GTIMSC-2021, https://www.conferencepublication.com/index.php/aoc/article/view/573

10. Fayzullayev, J.S. (2021) "Economic-mathematical model of evaluating the efficiency of the transport system," Economics and Innovative Technologies: Vol. 2021: No. 1, Article 1. https://uzjournals.edu.uz/iqtisodiyot/vol2021/iss1/1

11. Fayzullayev, J.S. (2021) "ECONOMIC-MATHEMATICAL MODEL OF EVALUATING THE EFFICIENCY OF THE TRANSPORT SYSTEM," Economics and Innovative Technologies: Vol. 2021: No.1, Article 1. Available at: https://uzjournals.edu.uz/iqtisodiyot/vol2021/iss1/1

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