

The Complex Quality of Transport Service

Nefedeva E.V.

The subdepartment of Economics and Management in
Railway Transport
Irkutsk State Transport University
Irkutsk, the Russian Federation
e-mail nefedev@list.ru

Ivasenko A.A.

The subdepartment of Economics and Management in
Railway Transport
Irkutsk State Transport University
Irkutsk, the Russian Federation
mikkol2004@mail.ru

Abstract— Nowadays the concept of integrated services to haulage consumership is increasingly being adopted in railway transport. If in the 70s of the last century it was the production issues that were basic among the business structures, and in the 80s quality issues came to the fore, in the 90s it was a comprehensive quality customer service. On the one hand, the concept of quality includes clear standards and absolute measurable indicators, on the other hand, an assessment of the level of service that is possible only when using concepts that express specific customer requirements. In this regard, at present, in order to assess the business structure in the transport market, it is necessary to improve the system of assessing the measured indicators of the quality of transport services.

Keywords—transport service, quality, transport service, transport products, customer focus.

I. INTRODUCTION

According to Russian Federal State Statistics Service, the situation in the Russian economy has improved over the past two years. Russia's GDP began to grow in 2017 after a two-year recession, despite the rough conditions under the impact of anti-Russia sanctions and high real interest rates. With that, domestic investment and consumer demand also tends to increase. Both volume and value of Russian exports for 2017-2018 boosted, which was provided by the price situation in world markets.

The production of raw materials, such as petroleum products, coal, coke, as well as fertilizers, rolled ferrous metals and other goods grew in Russia, which affected the increase in transportation needs of cargo shippers.

The transport industry of Russia in 2017-2018 is developing, following the growth of key indicators of the national economy and the restoration of Russia's participation in global trade, which ensures a positive trend in freight traffic volumes both in the domestic market and in international traffic. All these factors form the prerequisites for the development of the transport industry, allowing for the country's competitiveness.

The national projects approved by V. V. Putin and the strategic objectives of the development of the Russian Federation for the period up to 2024 will ensure the fulfilment of the following projects: reduction of rail container transportation time from the Far East to Russia's western border to seven days; increasing the carrying capacity of the Baikal-Amur and Trans-Siberian Railways by one-and-a-half times, up to 180 million tons, the carrying capacity of railway

approaches to the seaports of the Azov and Black Sea basin; Russia's joining the list of the five largest economies in the world; ensuring economic growth is higher than in the world. These goals are the main directions of development of Russian Railways in accordance with the Development Strategy of the holding company for the period up to 2030 and the Long-term Development Program of Russian Railways until 2025, developed in the fulfillment of the order of the President of the Russian Federation of December 27, 2013. No. Pr-3086.

The generation of a strategy for the development of railway transport is based on setting goals in the field of quality. The quality management system should permeate all subsystems of the Russian Railways holding company, being a framework, helping to monitor the organization's activities and develop measures to continuously improve the quality of its work and customer focus. [1]

Customer focus is a new approach to working with clients. This is one-stop customer service, which reduces service time, increases the level of transport service quality, and increases the speed of goods turnover in the country.

According to the provisions of the Strategy for the Development of Railway Transport in the Russian Federation until 2030, it is planned to ensure a fundamentally new level of intensity and efficiency of railway transport, which should be accompanied by an increase in passenger traffic, ensuring an optimal balance between price and quality of services provided, increasing the level of public satisfaction and the growth of the company's customer focus. The concept of customer focus of the Russian Railways holding company in the field of freight transportation says that the results of the work of Russian Railways are directly dependent on the customers' willingness to use transportation services in the future, and the company's development priorities over the coming years are to meet customer needs for quality and availability [2].

In this regard, it can be concluded that Russian Railways is the largest backbone element of the Russian economy, a part of the Eurasian railway network, providing transport corridors. [3]

II. METHODS AND MATERIALS

The annual conferences "Transport Services Market: Interaction and Partnership" reflect current trends and topical issues of concern for transport sector participants. Special attention is paid to the development of a model of rail

transport market which should be stable and applicable to all the participants. In addition, the Prize “Partner of OJSC Russian Railways” was established to improve interaction and cooperation with transport and industrial companies working with OJSC Russian Railways. All these steps are aimed at improving the quality of transport service.

According to A.N. Azriliyan, E.I. Posmantir, A.V. Komarov, and A.S. Shustov, assistance is the process of providing services and therefore it can be said that services are an element of assistance.

Transportation, as is argued by M.F. Trikhunkov and L. B. Mirotin, can be equated with the concept transport service - an activity related to the process of movement of goods and passengers in space and in time and the provision of related transport services. [4, 5]

GOST R 51006-96 defines the transport service as the result of the activities of the transport service provider to meet the needs of the passenger, cargo shipper and consignee for transportation in accordance with established standards and requirements.

The authors of the article agree with the opinion of G. V. Silicheva, T.A. Bulokhova and I.Yu. Lopareva that the customer care as a whole can be defined as the process of providing a complex of services or of a particular service that can satisfy the needs of the customer. [6, 7, 8]

Thus, today, customer satisfaction is becoming virtually the main indicator of the effectiveness and success of a company, since satisfaction is a prerequisite for building customer loyalty, resulting in a stable long-term profit of the company.

To get closer to the customer, many companies around the world are engaged in building a customer-focused policy to anticipate the needs of the customer and provide quality services and goods as required by customers. [9, 10]

One of the key principles of customer focus says: “Only the customer - and never the company management - can decide to what extent the company is client-focused” [11]. It is possible to implement this principle only under the condition of well-established “feedback” channels, through which the company receives from the customer an objective assessment of the quality of services provided, for example, using a questionnaire and survey system, IT technologies and Internet resources. The OJSC Russian Railways has already made arrangements in this direction. So, on the official website of the company there is an Internet reception office, in which customers can ask the president of the company online, leave comments, suggestions and proposals on the quality and level of services provided by the company. [12]

It should be noted that currently the company is very active in creating a customer-oriented system of sales of services based on the creation of single call-centers on some roads, provided services by the “one-stop” principle; ensuring constant feedback with passengers and cargo shippers; development of approaches to the formation of a competitive pricing system for services unregulated by the state; forming marketing and service promotion centers; the development of

the institution of customer care managers; actively promoting the services of the Russian Railways holding company on the Internet; developing industry standards for customer interaction, etc.

It is noted that the customer-focused company be oriented primarily on the requirements of key customers. Key customers are those whose requirements the company is technologically adapted to better, while they bring the bulk of the profits.

First of all, customer support is the backbone in customer-focused companies. Each employee needs to understand that his work affects the client’s perception of the quality of the service, and it does not matter how far he is from the direct communication with the customer.

The main criterion for assessing the level of customer focus of the company is to meet the needs of customers not only in quality but also in the availability of the services offered in various activities. It has become the main priority for the development of Russian Railways in the coming years, especially in attracting additional cargoes from other types of transport (road, air, water) to the railway, in the formation of new logistic products. [13]

To implement this, it is necessary to have easy interaction between cargo shippers and Russian Railways in terms of submitting applications and placing orders, the possibility of obtaining information online about the cargo location, its timely delivery, and so on. As for the field of passenger transportation, important and attractive factors are differentiated ticket prices and a discount system that allows passengers to save their own material resources, as well as improving speed and comfort. This is also a passenger loyalty program in the long-distance transportation segment and expanding the possibility of buying railway tickets electronically via the Internet.

In modern conditions of economic management in railway transport, the concept of transport service is expanding every year. In connection with this, a number of indicators characterizing the quality of transport services are increasing. It should be noted that, in general, there are two scientific approaches to the formation of indicators of the quality of transport services. Representatives of the first approach are V.G. Galaburda and M.F. Trikhunkov make it a point to characterize as fully as possible the level of quality of transport services with more than 10 indicators. Other researchers, A.V. Ryshkov, M.E. Mandrikov, D.A. Macheret, T.S. Khachaturov, I.V. Belov, V.N. Bugromenko, offer to be limited only to those indicators that can be clearly numerically assessed. [14]

When considering transport services, it is generally accepted to distinguish between internal and external environments.

The external environment implies the service itself - transportation and related additional services. It is represented by all participants of the transport market by customers, cargo shippers, consignees, freight forwarding companies and operator companies using the infrastructure of the Russian Railways holding company.

The internal environment is a production environment that considers transport services from the point of view of the production process, whose participants are all structural divisions, branches and subsidiaries and affiliates.

Relative indicators reflect the level of production quality of transport services using satisfaction rates for certain factors, such as preservation, safety, steady supply, etc. Relative indicators, in turn, can be calculated (for example, the level of efficiency, safety, degree of cargo preservation) and expert (cargo receipt convenience, event, number of points, warranty mileage of rolling stock).

Recently, transport value indicators reflect the level of quality with the help of such indicators as claims, fines, complaints, etc. It can be said that the value indicator is an estimate reflecting the level of consumer quality.

The authors proposed the following model of transport service (Fig. 1, 2), which includes not only the tip of it (work with cargo owners), but also the internal environment that ensures interaction between all divisions of Russian Railways, its branches, subsidiaries and affiliates. [15]

This internal environment plays a key role in the functioning of transport, which makes it possible to constantly improve the quality of work and increase its level of customer focus. Thanks to this structure, it is possible to more deeply and comprehensively assess the level of quality of transport services.

The comprehensiveness of quality implies systematization or degree of correlation of the structural subdivisions of

enterprise, of external and internal spheres. [16] Due to this, it is necessary to pay close attention to the system of the quality management, starting with the suppliers of physical commodity values, rolling stock, human resources, and concluding by cargo owners and operators in the transport market (Fig. 3).

The authors believe that the introduction of the method of the work quality assessing at the railway transport enterprises with the division into relative and cost indicators, is relevant.

III. RESULTS

In 2018 the authors conducted a survey of large enterprises, which are serviced at the East-Siberian Railway in the amount of 10 units. Table 1 shows the results of a study of the services of consumers of the external environment, i.e. the level of satisfaction of cargo owners with regard to the quality indicators of transportation shown in fig. 2.

According to the research, the priority of the surveyed companies are such indicators as cargo preservation, comprehensiveness, safety. Having calculated the correlation coefficient using the Pearson formula, we obtained that its value is negative and amounts to -0.8511. A negative value of the correlation coefficient indicates that an inverse relationship and a high relation strength is observed between the variables. (Fig. 3) Therefore, this correlation is statistically relevant.

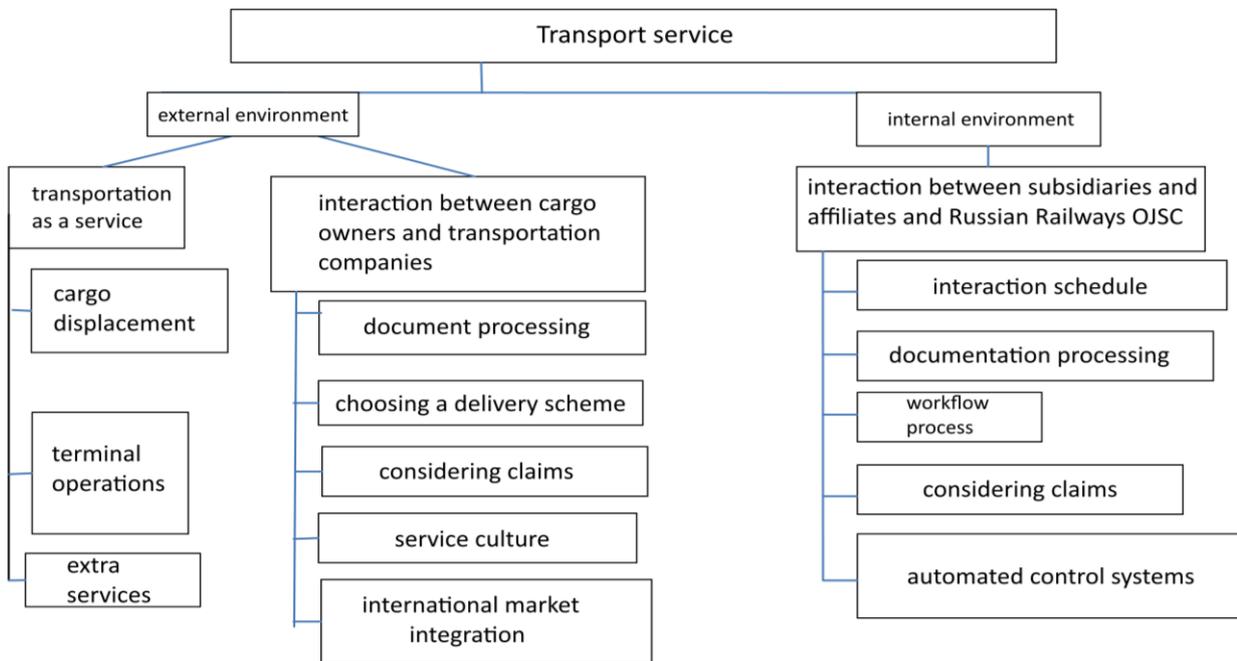


Fig 1. Transport Service Structure

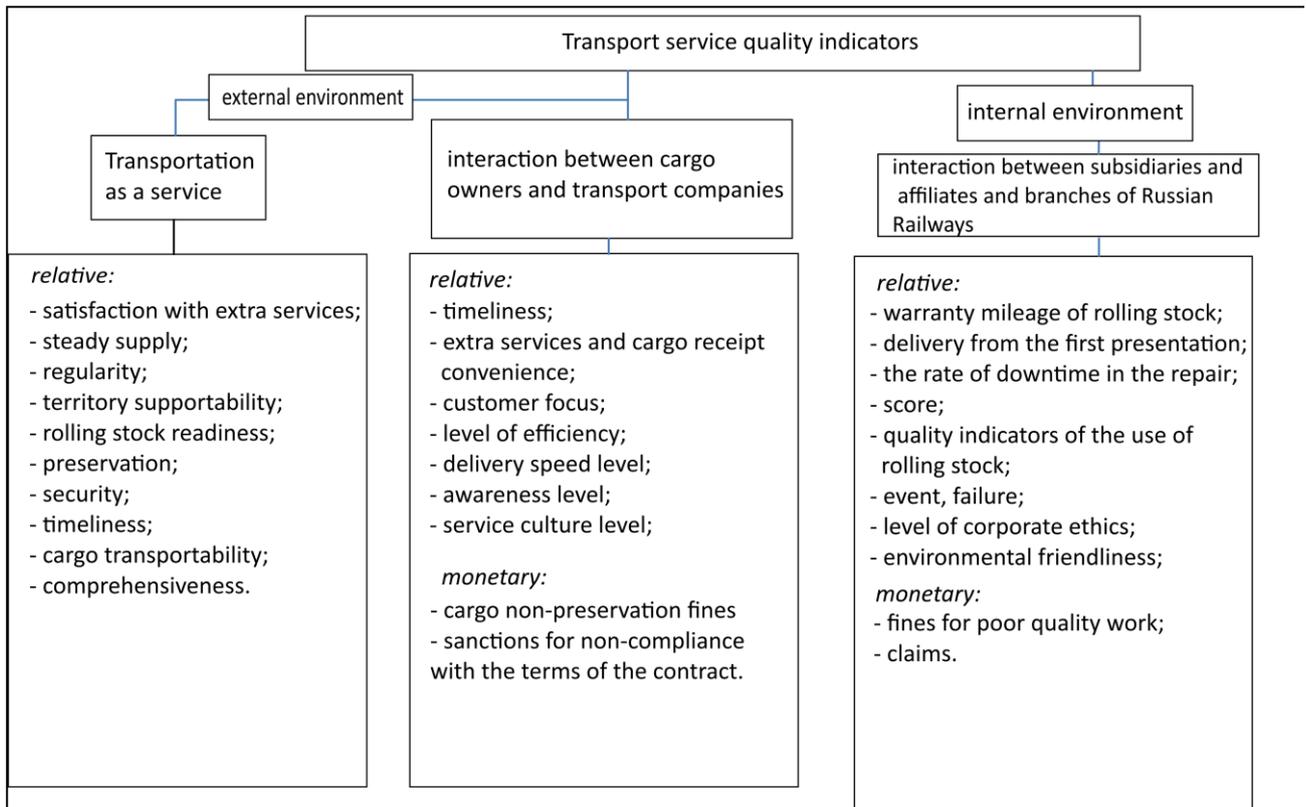


Fig 2. Transport service quality indicators (compiled by the authors)

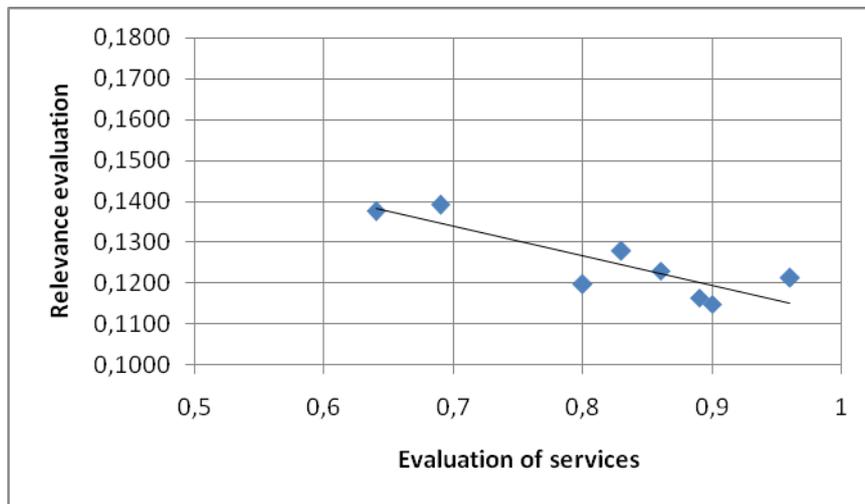


Fig. 3. Dependence of quality indicators and assessment of significance

TABLE I TRANSPORT SERVICE QUALITY INDICATORS

<i>indicators</i>	<i>timeliness</i>	<i>preservation</i>	<i>territory supportability</i>	<i>steady supply</i>	<i>comprehensiveness</i>	<i>safety</i>	<i>satisfaction with extra services</i>	<i>rolling stock condition</i>
Evaluation of services	0.89	0.64	0.96	0.9	0.69	0.86	0.8	0.83
assessment of relevance	0,1165	0,1375	0,1214	0,1149	0,139	0,123	0,11197	0,1278

That is, the higher the level of the service evaluation indicator is, the less importance it is given to enterprises. According to the analysis, rail transport should focus on ensuring a high level of preservation and comprehensiveness, otherwise it may lose its clientele.

IV. CONCLUSION

Coming to conclusion, one can say that one of the key directions of the development strategy of the Russian Railways holding company until 2030 is building long-term relationships with customers, increasing market flexibility, the level of availability of transport services and the market share of Russian Railways, that is, an increase in customer focus and quality of service, ensuring the growth of income of OJSC Russian Railways, the elimination of intercompany competition between business units of the business block. This is what the "one-stop" transformation of the system through the proprietary transport service center is aimed at.

The switch of OJSC Russian Railways to customer-focusedness brings the company to a different level in a competitive environment, which will provide the following effects: increase profitability and production efficiency, increase sales of services, expand the company's productive line and optimize the portfolio of services provided and reduce losses from inadequate quality of services.

In the near future, the formation of a customer-focused culture of Russian Railways holding company by implementing projects oriented to meet the needs of users of railway transport services will have a significant increase in the company's transportation volumes and will contribute to the achievement of a number of strategic goals of the company defined by the development strategy of Russian Railwaysholding company for the period until 2030, approved by the Board of Directors of OJSC Russian Railways on December 23, 2013:

- to maintain the leading position in the field of freight rail transport in Europe, to increase the attractiveness of rail transport for customers, to increase the freight traffic by 2030 by 500-800 mln tons;

- increase customer satisfaction by improving the quality of services while maintaining a competitive cost of transportation.

First of all, according to the research, all structural units should focus their efforts on the quality of transport services, working for transportation as the only target result. The efficiency of the internal environment of the holding company can be improved through the use of a process approach in management, a new model for assessing the quality of transport services.

Acknowledgment

The authors express thanks to Leonid Petrovich Surkov, Ph.D., Professor at the IrGUPS subdepartment of Economics

and Management in Railway Transport for invaluable experience, significant comments and building a logical link in the study.

References

- [1] T.A. Bulokhova, "Problems and ways to improve the quality of public transport services (railway transport)", Aircraft Engineering and Transport of Siberia, pp. 390-397, May, 2018 [Coll. of articles of the International Scientific and Practical Conference on Aircraft Engineering and Transport of Siberia, p.425, 2018]
- [2] L.P. Surkov, Formation of a holding control system of Russian railways. Irkutsk: IrGUPS Publ., 2012, pp. 124-127.
- [3] G.V.Silicheva, L.P. Surkov, "Client focus: one-stop services at industry level", Economy and Entrepreneurship: a research journal. Moscow: S.V. Gorin, vol. 10., pp. 491-497, 2016.
- [4] L.B. Mirotin, Logistics: management in freight transport and logistics systems. Moscow: Yurist Publ., 2002. pp.214-216.
- [5] L. B. Mirotin, Transport logistics. Moscow: Ekzamen Publ., 2002, pp.55-60.
- [6] A.N.Azrilyan, O.M.Azrilyan, E.V. Kalashnikova, New Economic Dictionary. Moscow: Omega-L, 2008, pp. 64-72.
- [7] I.Yu. Lopareva, "The study of the concept of transport services", Transport of Russia. Transport of Russia. vol. 1, pp. 130-133, 2017.
- [8] G.V.Silicheva, T.A.Bulokhova, E.S. Podgornova, Methodological approaches to quality management in railway transport in the context of industry reform. Irkutsk: IrGUPS Publ., 2015. pp.56-60.
- [9] N.N.Grigorieva, V.I. Lazareva, "Innovation as a tool to improve efficiency and competitiveness", vol. 2, pp. 89-92, April, 2016 [Transport infrastructure of the Siberian region: The materials of IX International scientific and practical conference, p.878, 2016]
- [10] A.A.Ivasenko, E.V.Nefedeva, "The essence of customer focus policy of the Russian Railways holding company in the field of freight traffic", Science today: theoretical and practical aspects, pp. 83-84, December, 2018 [Materials of the international scientific and practical conference, Russia. Vologda city, p.160, 2018]
- [11] V.N. Morozov, "Tools for reforming monopoly", Remote control. vol.3, pp. 6-9, 2015.
- [12] N.P.Tereshina, V.A. Podsorin, "Innovations and competitiveness", World of Transport, vol. 4., 2012, pp. 82-89.
- [13] I.Yu. Lopareva, "Indicators of the quality of transport services for cargo owners", Actual problems of the economy and management of water transport, pp. 30-33, October, 2014 [Actual problems of the economy and management of water transport: materials of scientific-practical conference .St. Petersburg: Adm. Makarov GUMRF Publ., p.320, 2014]
- [14] E.V.Nefedeva, O.A. Shaltina, Optimization of a schedule prevention traction rolling stock repair system, Collection of articles of VI International Scientific and Practical, vol. 2, pp. 205-210, September, 2015 [Transport Infrastructure of the Siberian Region, p.678,2015].
- [15] V.M. Nikolashin, Functioning optimization of transport and logistic systems. Moscow: MIIT Publ., 2007, pp.55-59.
- [16] E.V. Nefedeva, "Quality of services of a locomotive service depot", Science today: reality and prospects: materials of the international scientific and practical conference, pp. 65-67, February, 2019 [Materials of the international scientific and practical conference, Russia. Vologda city, p.160, 2019.]