

MODERN PROBLEMS IN EDUCATION AND THEIR SCIENTIFIC  
SOLUTIONSANALYSIS OF THE LEVEL OF PASSENGER SERVICE QUALITY  
OF “UZBEKISTAN RAILWAYS” JOINT STOCK COMPANY

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**Abstract:** *This article analyzes the organizational and economic changes being implemented in the passenger service system of Uzbekistan Railways JSC, existing problems and their solutions. The importance of innovative approaches, service diversification and technological development directions implemented to improve the quality of service is highlighted. Studies conducted on the level of satisfaction of passenger needs and their indicators are analyzed, and recommendations are developed to improve the quality of services. The results of the study are enriched with scientific and practical foundations aimed at increasing the efficiency of passenger transportation services.*

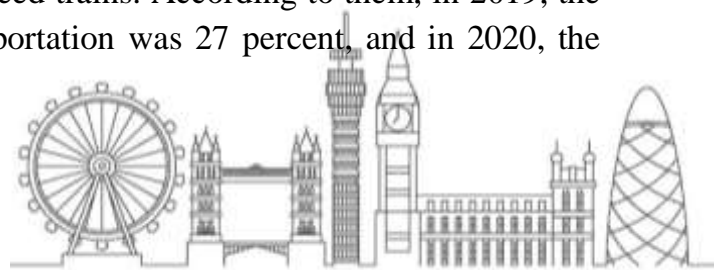
**Keywords:** *railway transport, passenger transportation, quality of service, diversification of services, organizational and economic mechanisms, passenger satisfaction level, improving service efficiency.*

The level of improvement of passenger comfort in 2019 recorded high results with 86.5 points, while in 2020 this situation showed that it had undergone anti-dynamic changes until 2023. The trend of exceeding 50 points in 2023, but gradually approaching it, suggests the need for a different strategic approach to organizing services.

**Table 1. Level of quality of passenger service, 2019-2023 (coefficient)**

	Max %	2019	2020	2021	2022	2023
$w_k$ Service share (%)	50	27	9	33	35	35
$r$ Number of factors considered in each service type	-	3	4	7	9	7
$p_i$ Passenger satisfaction level (%)	20	14	18	13	14	13,5
$e_i$ Average passenger satisfaction with the service (%)	10	7	10	8	9,3	9,8
$i$ Indicator: Rate at which passengers promptly use the	20	12	12	14	14,6	15,6
SQ- Service Quality	100	78,7	46,5	125,7	127,8	118,9

The figures in Table 1 on the share of service were formed by selecting passenger transportation services on the scale of high-speed trains. According to them, in 2019, the share of high-speed trains in passenger transportation was 27 percent, and in 2020, the





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temporary suspension of railway services in compliance with strict measures to maintain social distancing and self-isolation during the Pandemic provided a share of 9 percent. In 2021, as a result of the easing of the Pandemic conditions, the share of high-speed trains in passenger transportation increased sharply to 33 percent. In 2022 and 2023, due to the launch of high-speed trains to remote regions of our country, its share was 35 percent. Overall, this share is expected to increase in the coming years, given public confidence in high-speed trains and passenger satisfaction with their speed.

The number of aspects taken into account in each type of service is mainly formed based on the services available on high-speed trains and provided to passengers. In 2019, the most widely used and traditional services were the provision of high-quality individual meals to passengers (included in the ticket price as an additional charge), the use of a luggage cart for transporting luggage, and the provision of mobile phone charging. In 2020, these aspects became very popular due to the addition of medical services, and accordingly, the number of aspects taken into account in the formation of Table 2.10 in our study included 4. In 2021, the number of aspects taken into account in each type of service was 7, and in addition to the above services, a digital service was provided to replace the existing seat with another one if it is available for sale (i.e., if the passenger wants to lie down, he has the opportunity to change it electronically by paying an additional fee for a deluxe cabin). Also, the mobility of passengers was increased as a result of preventing out-of-network situations when using mobile communications. The separate installation of air fresheners in hygienic places during cooling when using air conditioning increased the positive attitude of passengers to the high-speed train. In 2022, the list of services was added to the list of services, which included the provision of items that can be played on the table in order to spend the travel time meaningfully, as well as a catering service. The services provided for passenger transportation in 2023 remain the same as in 2021.

The average level of passenger satisfaction with each type of service was analyzed using a questionnaire, which was 14 percent in 2019. Despite the pandemic, passengers were highly rated in 2020 due to the increased medical care and the strict rules of the pandemic, with each passenger being monitored by providing them with personal hygiene masks and gloves. In 2021, since most passengers were younger, their satisfaction with the convenience of using technical equipment was assessed at 13 percent, due to the low level of sockets and power supply. This situation increased slightly in 2022 and 2023, indicating that passengers' attitude to services has not changed much. It is also worth noting that in this assessment, the maximum percentage of 20 percent was allocated to this indicator, and accordingly, we reflected it within the 20 percent share of the 100 percent criterion.

The average level of passenger satisfaction with the service differs from the above level of passenger satisfaction in that it studies the attitude of passengers to general services without mentioning the names of the services in the list of services. The level of







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passenger satisfaction was formed on the basis of the fact that a list of services was provided and percentage indicators were allocated for them in the questionnaire. The maximum 10 percent was set for this assessment, which was 7 percent in 2019, and this is 70 percent of the 10 percent. The survey conducted for 2020 was based on positive feedback and a high level of satisfaction. Although the level of passenger satisfaction with existing services in 2021 decreased by 20 percent compared to 2020, it was highly effective. In 2022-2023, the level of satisfaction with services approached 10, indicating that passengers' overall assessment of the use of services is positive.

When considering each service in terms of time, if we take i-deb services as a summarized indicator, then since the waiting time for using it is an important criterion, the assessment was carried out taking it into account in the questionnaire. In 2019, the waiting time was 12 percent in the 20 percent range, and in the 100 percent range, it corresponds to 60 percent. Therefore, it can be said that passengers achieved the opportunity to use the service quickly with some waiting, because its level is slightly higher than 50 percent, which corresponds to the fact that 1 service in the time summary is 21-18 minutes. This situation was also observed in 2020, and in 2021 the waiting time was 11-8 minutes, accounting for 30 percent of the waiting time. This situation was repeated in 2022, and in 2023, these minutes decreased to 8-5 minutes, corresponding to a 20% reduction in waiting time. Considering the speed of services in recent years, it can be recognized that the efficiency has been high.

The effectiveness of all the above aspects in terms of their impact on the quality of service was 78 percent in 2019, which means that there are many shortcomings that need to be eliminated. In 2020, the quality of service was 46.5 percent, but this is considered positive compared to the situation that arose in a very short period of time. By 2021, the quality of service was able to show an effectiveness of 25 percent to more than 100 percent. In 2022, this indicator increased by 2 percentage points to 127 percent. In 2023, the quality indicator was estimated at 9 percent lower due to the increased demands of the younger generation, whose ideological views are critical of development. This, in turn, increases the need to further diversify services for passengers in railway services.

Taking into account the lack of mechanisms and services for studying passenger demand for travel and passenger group travel, it is recommended to develop a scenario for their introduction and activation. This, in turn, implies the formation of a system that allows for appropriate analysis of this indicator. This requires the development of a mechanism taking into account passenger demand for travel and passenger group travel parameters. In addition, today, the consideration of passenger whims as a requirement for the development of services in passenger transportation by rail will fully contribute to eliminating problems associated with service diversification.





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