

Modern Model of Food-service Management in Railway Transport

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Abstract: In the competitive environment of the transport industry, the issues of providing passenger service in railway transport have become conceptual importance. The change in the trajectory of the tourism and hospitality sector development aimed at the domestic tourist market and the reduction in air traffic at this stage due to objective reasons allows Russian Railways to strengthen its position. The developed food service management model based on the proposed innovative solutions of a product, marketing, process, and organizational nature is a potential resource project for the formation of a customer-oriented service. As a niche product service, an improved branded concept of the RW food is proposed as a result of the building new service standards, the use of innovative production technologies, the digitization of customer services and business processes, and the improvement of the quality of service, which will contribute to the promotion of a complex product in railway transport—passenger transportation, and growth of the economic efficiency of the Russian Railways.

1 INTRODUCTION

The sustainability of the transport system is primarily determined by the volume of freight and passenger traffic and the quality of transport services. According to MGI, the total value of infrastructure assets for the development of infrastructure should be 70% of GDP; in the Russian Federation, their total value has reached 61%. According to the Comprehensive Plan for the Modernization and Expansion of the Main Infrastructure for the period up to 2024, about 40% of the investments will be directed to infrastructure, including transport (Markova, 2021), which will ensure the intensive development of the transport system and its customer focus.

Currently, effective business strategies are focused on customer service and, accordingly, on effective service technologies. Unlike other modes of transport (air and bus ones), the duration of travel by rail transport is significant, which determines the direction in the service strategy. According to (Misaeva, 2021), the increasing popularity and accessibility of railway tourism for residents of various regions of Russia and the revival of railway tourism as a new business area as a result of the technology of using direct cars in passenger tourist trains are one of the possible measures to accelerate the restoration of pre-crisis traffic volumes.

Consolidation and creation of interorganizational relations of public authorities, regional structures, the Russian Railways, tour operators, and other enterprises operating in the hospitality industry, contributes to the promotion of mutually beneficial areas of this activity: from sharing resources (managerial, informational, material, labour, financial) to improving work efficiency, building up the investment potential of territories in the context of pandemics and pronounced positive dynamics of the overall and the average degree of satisfaction (Timakova, 2021).

The study of the technological features of the organization of servicing passengers traveling by rail, including for tourism purposes, shows the need to consolidate structural units at the Russian Railways to create a single service product. The product line offered by the Russian Railways for its passengers includes a standard set: ticket sales, including the cost of bed linen, transportation, accommodation, catering; sale of printed and souvenir products and sanitary and hygienic supplies. However, in a competitive environment, a new quality of services, in particular catering services, is being formed, in order to increase profitability and to improve the efficiency of the enterprise. Against the backdrop of the established mentality of passengers: meals on trains are expensive, it is more reliable to take food with you or to buy at stations along the way of the train, there is a need for food and experiences, in

accordance with the expectations of customers of different target groups. It is known that at present, a sustainable consumer behavior model of the population is also projected through gastronomic preferences. Thus, according to (Rogach, 2020), more than 55% of the surveyed foreign respondents note that they always purchase tours based on online reviews containing photos of beautiful meals. At the same time, 31% of respondents confirm that they also always take pictures of their food in a restaurant or a cafe and 15% of respondents post such photos on social networks. It is the positive reviews about the food service that often become the basis for choosing a tour for 30% of respondents and always—for 17%. People are attracted to objects/events/things that allow them to demonstrate their desired image, while generating positive impressions and increasing the rating of enterprises captured in such a context.

The Russian Railways provide guaranteed (standard prepaid) meals—it is included in the ticket price and additional meals—depending on the type of carriages. Additional meals are presented as a full board basis or half board basis, to choose from (breakfast, lunch, or dinner) and with a choice from the menu. Along with this, certain prerequisites that make it possible to strengthen the service component in the implementation of the “RW food” (RW nutrition), the so-called meals on transport (the authors introduce a new term by analogy with in-flight meals on air transport) against the backdrop of the COVID-19 pandemic and sanctions measures to limit international air traffic with the Russian Federation, for parallel global trends have arisen: development of domestic tourism due to the existing steady growth in the number of citizens of the Russian Federation to local travel within the country and an increase in the passenger flow of such tourists, which predetermines **the purpose of the study** as the development of a modern model of food service management in railway transport based on the

existing resource potential of the Russian Railways in the implementation of the RW food.

2 MATERIALS AND METHODS

The sources for the study were publicly available official information resources, including the Russian Railways website, and research literature. During the study, basic terminology has been used, in accordance with GOST R 51006-96 “Transport Services. Terms and Definitions” and the state standard GOST R 51004-96 “Transport Services. Passenger Transportation. Nomenclature of Quality Indicators»; general scientific research methods based on content analysis, using the deconstruction method, an analytical approach and system synthesis, followed by interpretation of the research results, have been used.

3 RESULTS AND DISCUSSION

Achievement of performance indicators set by the Russian Railways is determined by an integrated approach to increasing passenger turnover as a result of carrying more passengers and improving the customer service. According to the information shown in Figure 1, it can be seen that over the past decade, the largest passenger turnover was in 2012—114.0 billion Pkm, followed by a downward trend due to various reasons—increased competition from air carriers, active development of outbound tourism, non-competitive railway transport service, etc.

In 2020, the main factor that significantly affected all areas of activity, including the transport industry, was the COVID-19 pandemic (Umanets, 2021). Under these conditions, the passenger turnover has reached a drop depth of 48.2 billion Pkm, which amounted to 51.5% of the pre-pandemic level in

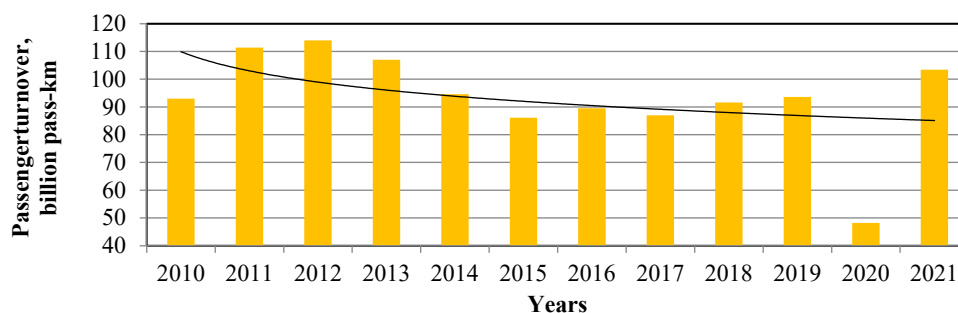


Figure 1: Passenger turnover through the network of the Russian Railways.

2019. However, in 2021, with the change in the travel trajectory of the country's population and the dynamic development of domestic tourism, the passenger traffic through the Russian Railways network has reached 103.4 billion Pkm, including long-distance passenger traffic amounted to 72.0% of the total turnover against 68.5% in 2020 and 74.3% in 2019. In short-term forecasting, indicators can improve due to geopolitical changes due to the growth of domestic tourism and the active movement of the country's population between regions. In order to consolidate the position of rail transportation and to increase the competitiveness of the Russian Railways, it is necessary to strengthen the customer focus of service departments, including food service, which, in our opinion, can also be due to the efficiency of activities—other activities currently bring profit to the holding, unlike passenger transportation.

The corporate strategy of the Russian Railways has been built, in accordance with the main objectives of the predictive socioeconomic development of the Russian Federation until 2030 and the Transport Strategy of the Russian Federation for the period up to 2030. The target business model for the balanced development of the Russian Railways holding is shown as the following blocks: transportation and logistics ones, passenger transportation and service, infrastructure, international engineering, and

transport construction, and a social one. The Passenger Transportation business block as the center of responsibility for providing customer-oriented passenger service includes areas for improving the product offer, digitizing customer services and business processes, improving the quality of service, and achieving economic efficiency.

Strategic planning of a public catering complex as a result of the development of an integrated management model is an effective way to assess the development of the company (Timakova, 2021) and it is adaptively applicable when planning the RW catering concept in the food service model at the Russian Railways.

The business process for achieving the quality of service in the passenger transportation is shown in Figure 2.

Under these conditions, for the introduction of innovations, in accordance with the requirements of GOST R 56261-2014 “Innovation Management. Innovations”, it is necessary, according to (Makarova, 2021), to use micro- and macromodels that allow comparing situations “as it is” and “what to do” in order to predict the consequences. On average, domestic enterprises spend 1-2% of their budget on innovations.

Table 1 shows the main types of innovations that are proposed to be introduced as a part of the

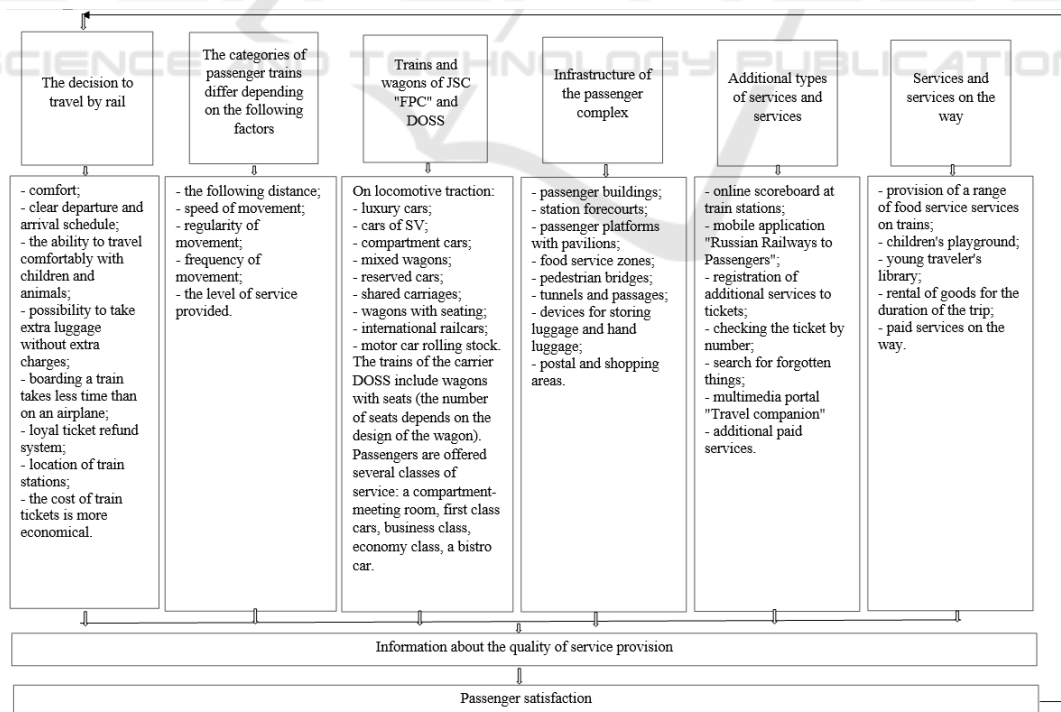


Figure 2: Block diagram of creating the quality of transport services of the quality management subsystem in the passenger transportation of the Russian Railways.

improvement of the “food service” at the Russian Railways.

At the same time, according to the typology, the food service model refers to an innovative (competitive) strategy, which increases the competitiveness of railway transport, contributing to an increase in passenger traffic and the development of domestic tourism, including railway tourism.

Considering tourism as a potential resource for the quantitative growth of a passenger traffic, it is necessary to pay attention to the possibilities of niche tourism products and to expand the tourist flow through the transition from the traditional model of the tourism product range to the strategic one, from extensive to intensive development. It is well known that the issues of expanding the range when selling a tourist product are especially relevant for Russia, where the main flow of tourists is directed to two key destinations—St. Petersburg and Moscow (Preobrazhensky, 2021).

In most foreign countries, on-train catering companies in the world are owned by the carriers themselves.

At the same time, the transfer of a part of non-core functionality to outsourcing companies under the

customer experience management in railway transport, when assessing the perception and impressions of a consumer from traveling by rail, can improve the quality of passenger service and reduce the service product cost (Gulyaeva, 2021).

In the Russian Railways, ready-made meals are produced by the Unified Catering Network (UCN) enterprise (Arpicom Management Company), which, according to a contract with the Federal Passenger Company (FPC), JSC, provides catering services for passengers of luxury cars on a number of long distance trains.

On April 15, 2021, the Russian Railways have launched a test stage of the “Concept for the Provision of Catering Services” on long-distance trains of FPC, JSC. Special bistro cars, which are supplied with sterile containers with ready meals, appear as a part of the new concept.

When forming an RW food, it is conceptually important to take into account the existing positive experience in creating an information system for ordering in-flight catering, which, according to (Pavlyukovich, 2021), will automatically change the number of servings and the range of products in orders depending on the change in the route of a

Table 1: Characteristics of different innovation types.

Types		Characteristic
Technological	Gradual	Product New products (RW food, additional food—assortment, packaging, new partners—outsourcing) New application of products (guaranteed food) Vending machines with snacks and hot drinks Modern mobile snack bar Night menu, brunches, continental breakfasts Family full board, group meals
	Radical	Process Delivery technology (RW food workshop, logistics, delivery centers, catering) Unified system of product quality standards for outsourcing catering companies Unified system for auditing the quality of products and services Software (intelligent automation) Lean manufacturing (management concept aimed at minimizing losses) Offer of soft drinks
Non-technological	Gradual	Organizational Creation and implementation of workflow, systematization of the enterprise (corporate code, regulations) Operational management system (implementation of operational software, food service standards, service, appearance) Organization of the work of the kitchen and the trading area (regulations, regulatory documentation, recipe & cooking process flow card, HACCP, production control)
		Marketing Promotion, valuation, communications (RW food market research, price positioning, communication strategy, cash flow forecast)
	Social Accessible environment Social tourism for senior citizens Patriotic education	

board, the change in the composition of the crew, and the number of passengers.

An interesting solution in the form of edible dishes for environmentally friendly passenger service is proposed for in-flight passenger service (Kolpinskaya, 2021), which can also be successfully used in the RW food.

Among all modes of transport, it is railway transport that is distinguished by comfort, a variety of accommodation conditions, the ability to provide passengers and travelers-tourists with a range of services (transport, food, accommodation, leisure activities). The cars have increased comfort; they are equipped with air conditioners or climate control systems, comfortable seats, panoramic windows, shower cabins. Informativeness while traveling by rail is higher than by bus (Kosareva, 2021).

At the same time, the issues of providing passenger service are currently becoming important due to the expected growth in passenger traffic against the backdrop of geopolitical changes, a certain reduction in air travel, where the main ideology was to reduce travel time. Passenger satisfaction in railway transport shall be determined primarily by the comfort of travel and the level of development of service technologies.

In order to improve the customer service and to organize feedback from passengers, the Russian Railways operate a number of client servers: a virtual reception desk, a hotline, customer support centers in the Telegram and Viber messengers, and the Russian Railways to Passengers mobile app. The information obtained shall be confirmed by the results of marketing research (Chocholac, 2018), where the analyzed criteria were ticket prices, the convenience of transportation, the customer service, and the train staff's behavior during the trip, the cleanliness of the car interiors, the frequency of proposed connections, and the offer of refreshing drinks during the trip.

Tutu.ru, the Analytical Center for the Trips and Travel Service, is joining in to study the opinions of passengers. For the period from mid-2016 to the present, more than 475 thousand responses have been collected, which makes it possible to form an assessment of the service quality, the results of which are available to all visitors when searching for a railway ticket on the website.

According to the results of a 2020 study (Kasymova, 2020), using Google forms, it was found that 53.8% of respondents do not use catering services on the train; 23.1% of them visited the restaurant car; 15.4% purchased products sold by the conductor; 7.7% chose meals included in the ticket price.

According to (Hwang, 2021), consumers who choose an individual, rather than a fixed menu, and an individual way of eating meals, rather than in groups, have a higher level of perception of the functional value of meals and satisfaction, which is taken into account when creating a food service management model.

An important component of the proposed food service management model is the direction to reduce waste in the production and sale of the RW food (as a result of the implementation of the lean production concept), the reasons for which can be an unreasonable number of food orders when booking, a late refusal of a prepaid order by passengers, order changes, quality, temperature of the meals, etc., which is consistent with the opinions of a number of authors (Gao, 2021; Gladysz, 2020).

The most important problems of food service and organization of the RW food include: non-standardized menu of regional catering shops throughout the entire route of the railway train, high cost of raw materials, design features of railway transport (restriction on the location of food sets) (Zyukina, 2020). The modern food service management model should be based on service standards.

The proposed business model for food service management includes the following elements: marketing and analysis of the food service standards system state at the Russian Railways, goal setting, designing the food service system, preparing to ensure the system operation, implementing the process, monitoring the quality of the process at Figure 3.

In the process of implementing the food service model, the basic principles of BYK (*Russian*: Всеобщее управление качеством), or TQM (*English*: Total Quality Management) should be taken into account. With this approach, the consumer assessment process can include an assessment of the quality of not only the results obtained, but also the internal (production) processes of the transport company, as well as the quality of service by personnel (Lavrov, 2018).

In our opinion, the proposed food service model based on formalized features will increase the profitability of this direction in railway transport.

4 CONCLUSION

Against the backdrop of the transport market saturation with services for the transportation of passengers and increased competition in the current

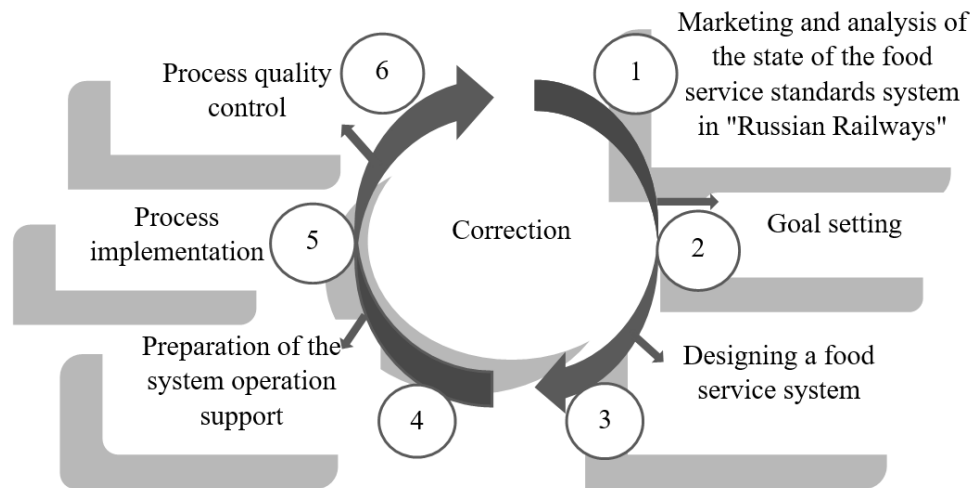


Figure 3: Business model of food service management.

conditions of limited air traffic and, accordingly, an increase in passenger traffic in rail transport, including through the active development of domestic tourism, the issues of service efficiency in organizing the RW food are of particular importance. In order to improve customer service, various innovative solutions are proposed aimed at creating an integrated approach to the provision of services (management, marketing, production, service standards), the use of outsourcing and catering services, the introduction of the concept of “lean production” in the provision of food services, the organization of an innovative RW food models and development of adaptive service for different categories of passengers. The developed business model of food service management based on a set of technological and non-technological innovations will make it possible to create a client-oriented model for managing railway transport services.

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