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# DEVELOPMENT OF PASSENGER TRAFFIC SERVICE QUALITY MANAGEMENT SYSTEM OF RAILWAY ENTERPRISES

Purpose. At the present stage of development of Ukraine's economy, passenger traffic service quality management of railway enterprises became one of the main tasks to ensure their efficient operation. In terms of railway reforms and increased competition in the transport market, the discrepancies between the technological level of traffic and the growing needs of society and the quality standards of transport services, the priority is the establishment of quality management system for passenger traffic services in rail transport. This question should be considered in the paper. Methodology. To achieve this goal and ensure a high quality level of passenger traffic services in rail transport, which involves a combination of approaches to the position of consumers (determination of their satisfaction) and railway enterprises (measurement of results and formation processes of service quality), the paper proposed a passenger traffic service quality management system. The proposed methodical approach to formation of the passenger traffic service quality management system in rail transport implements a principally new scheme of interaction of elements during provision of services, where the inter-related resources (human, material, financial, information), means, instruments and processes result in creation of quality transport service. Findings. The efficiency of the passenger traffic service quality management system allows detecting the dynamic of improvement of the services provided by the railway enterprises and building the system which is self-learning on the principles of continuous improvement. The paper grounded new principles of the passenger traffic quality management, which were formed on the basis of general management principles, quality management principles and railway transport management principles. Originality. The work presents the developed passenger traffic service quality management system targeted to meet the expectations of passengers from transport process while taking into account the economic interests of railway enterprises. The basis of this system is conceptual principles, namely, goal, objectives, subject, object, principles, functions and practical recommendations, which generally determine the relationship of the basic elements of the passenger traffic service quality management in rail transport. **Practical value.** The practical value of the obtained by the author results is that their implementation will enable railway enterprises to forecast the improvement of service quality level, taking into account their specific features and create solutions for control and regulation of processes and passenger traffic service quality effects. The theoretical and methodological provisions may be used in the formation, operation and improvement of the quality management system for passenger traffic services in rail transport.

Keywords: quality; transport service; quality management system; passenger traffic; railway enterprises

#### Introduction

Passenger rail traffic has traditionally played great importance at every stage of development of Ukraine, both in the days of centralized management and at the stage of transition to the market management.

Much larger percentage of the population uses the services of passenger rail traffic rather than the freight transport services; therefore, it is the state of passenger traffic complex that forms the image of the country's rail system in the society.

The current situation in the Ukrainian railway transport sector is characterized by significant dynamic changes. The present transformation sets for the railway the new complicated tasks – not only to

ensure provision of transportation to the economy and population, but also to form a new, competitive segment of the railway business both in suburban and long-distance passenger transport sector, able to interact effectively with all stakeholders of the transportation process, continuously improve the quality of their work, despite the tariff restrictions and increased competitive pressure from other forms of passenger transport.

Improvement of passenger traffic service quality today and in the future is the basis for attracting passengers to rail transport and improve profitability regardless of ownership and the nature of the operation of passenger businesses. If previously

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the main indicator of passenger traffic railway enterprises was a passenger-kilometer, today, the senior managers face the task of raising revenues through the highest quality services to meet the demand.

# **Purpose**

The purpose of this article is feasibility evaluation of existing theoretical principles and guidelines and development of the new ones for establishment of the quality management system for passenger traffic services in rail transport.

#### Methodology

To achieve this goal and ensure a high quality level of passenger traffic services in rail transport, which involves a combination of approaches to the position of consumers (determination of their satisfaction) and railway enterprises (measurement of results and formation processes of service quality), the paper proposed a passenger traffic service quality management system.

The proposed methodical approach to formation of the passenger traffic service quality management system on railway transport implements a principally new scheme of interaction of elements during provision of services, where the inter-related resources (human, material, financial, information), means, instruments and processes result in creation of quality transport service.

The main provisions of the theoretical foundations of quality management services are presented in scientific works of domestic and foreign scholars, including: Aristov O. V., Basovskyi L. Ye., Hisin V. I., Hlichev O. V., Ihnatenko O. S., Ilienkova S. D., Koifman Yu. I., Mazur I. I., Okrepilov V. V., Redziuk O. M., Ukrainska L. O., Shvandar V. O., Fomichov S. K., Shapoval M. I., Feihenbaum, K. Isikava, T. Dzh. M. Dzhuran and many others, as well as the international standards ISO 9001 version 2008 and their identical Ukrainian national standards State Standards of Ukraine ISO 9001-2008 [3].

The quality of transport services is examined in the works by Barakhina V. M., Dykania V. L., Vorkuta A. I., Kryvoruchko O. M., Kudinova L. O., Kulaiev Yu. F., Lihum Yu. S., Mirotin L. B., Ostrovskyi N. B., Reva V. M., Soslovskyi V. H., Spirin Y. V., Sych Ye. M., Trykhunkov M. F.,

Ulitska I. M., Shynkarenko V. H., Shtanov V. F. and others.

### **Findings**

One of the trends in the market of railway transport services is the differentiation of transport services by levels, capacities and needs of consumers, which in its turn necessitates the organization of the quality management system as the basis of efficiency and competitiveness of services provided to meet the requirements of consumers and assess the degree of compliance of this service quality to the requirements.

Therefore, finding ways to attract passengers, improving efficiency and quality of passenger traffic, as well as their management is a key focus of the reforms conducted in rail transport at this time.

The economy of rail transport as a system of production and logistic relationship has its own specificity, which is determined by the complexity of management - the railway sector, which consistently provides basic services of cargo or passenger transportation from point of origin to destination point in compliance with the four principles (accessibility, reliability, convenience, efficiency), and additional services – activities or works that do not affect the performance by rail of its primary function – delivery of cargo or passenger to the destination, but increase customer satisfaction from receiving the service (e.g., providing information, telephone service, selling tickets via the Internet or telephone, carrier service for passenger traffic, etc.). We propose a functional scheme of the provision of passenger traffic rail services, elements of which are marked by the functional feature (Fig. 1).

The structure of the main rail service includes not only the physical transportation of passengers, but also some other operations that normally belong to the service, and their availability and high performance are not considered mandatory, but merely desirable to improve the image.

At the present stage of development of Ukraine's economy, passenger traffic service quality management of railway enterprises became one of the main tasks to ensure their efficient operation. The need to improve the quality in modern conditions is dictated by several factors: changes in legislation, needs of scientific and technological progress, requirements of consumers, development

of domestic and international trade and ecological situation in the country, etc. Problems of domestic enterprises and environmental factors lead to a decrease in their competitiveness; therefore, it is very important to implement at railway enterprises the modern service quality management systems intended to improve the technical and technological, organizational and economic processes.

The history of quality system development can be divided into six main stages (Table 1).

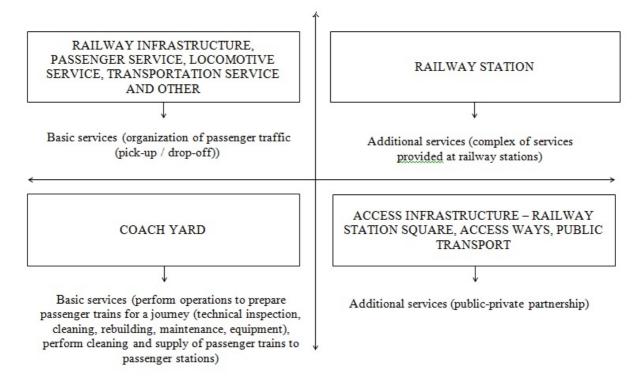


Fig. 1. Types of services provided to rail transport passengers (developed by the author)

Table 1

# Historical stages of quality management system development

Stages of quality management system development	Characteristics of the stages of quality management system development
Stage 1. F. Taylor system (1900-1920)	The first stage corresponds to the initial stages of system approach to management, when the first management system, F. Taylor system appeared. To ensure the successful functioning of a management company the first professional specialists in quality, inspectors, were introduced. There was a system of staff motivation to improve the work quality, there were requirements laid down in the technical specification (TS), implementation of which was checked at the acceptance inspection. All properties of the Taylor system made it a management system of the quality of each individual product. The Taylor system played an important role in enhancing the productivity and quality of products or services provided. The disadvantage of the Taylor system is that it is functionally oriented, and therefore internally contradictory. Due to the fact that every employee performs only the functions determined for him, performs only his work, the defects, the deviations from the requirements, the incompliance of the manufactured product or services accumulate. Therefore, the quality of products or services is not the way it was planned.

End of Table 1
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Stages of quality management system development	Characteristics of the stages of quality management system development
Stage 2. SQC – Statistical Quality Control systems (1920-1950)	The second stage of development of quality management systems was associated with the transition to process-oriented management, in which the subject of administrative actions became the qualitative parameters of production processes. During this period, the methods of statistical quality control were being actively developed; the sampling control tools were being shaped. Designers, technologists and production workers had to solve more complicated tasks in the field of quality, because they constantly faced the problems of variation and variability and had to know what methods would allow achieving their reduction. In the chain «supplier-company-consumer» the greater role was played by standardized methods of statistical acceptance inspection.
Stage 3. TQC – Total Quality Control system (1950-1980)	The third stage is associated with the advent of total quality control system – TQC. At this stage, there were documented quality systems that establish accountability and authority, and determined engagement in the field of quality of all the management, not just quality specialists. Increasing attention was paid to staff training. In this period the systems and methods that had been developed in the Soviet Union acquired great importance.
Stage 4. TQM – Total Quality Management system (1980-1990)	The fourth stage is connected with transfer from TQC system to the system of total quality management (TQM). At this time, there appeared a series of new international standards for quality systems, including ISO 9000 standards and MC 9000. The main target orientation of the quality system that is based on ISO 9000standards is to ensure the quality of products or services required by customer and to present the latter the evidence that the enterprise can maintain this quality. TQM
Stage 5. MBQ – Management by Quality (1990-2000)	The fifth stage of the quality management system began in the 90s of the twentieth century. Due to the fact that enterprises in carrying out their operation began increasingly to consider the interests of society, there appeared a new generation of quality standards ISO 14000 establishing requirements for the management system in terms of environmental protection and safety. As a result of these processes significantly increased the role of consumer quality parameters, and significantly strengthened the attention of management for companies and organizations to meet the needs of their own staff.
Stage 6. TQM and MBT (since 2000 till now)	ISO 9000 standards are being developed and updated. The development of quality management in view of industrial enterprise features through the development and application of specialized national and international standards of quality system creation. A large range of products, wider service offerings enable consumers' choice that is becoming more demanding in their tastes, which in turn leads to deepening of competition between manufacturers and to new approaches to meet the growing needs and expectations, and improved quality methods.

Source: generalized and systematized based on [5, p. 52, 7, p. 48, 8, p. 57]

Analysing Table 1, it can be seen that each stage begins with the introduction of a systematic approach to quality management. Development of quality management system includes first the determination of what processes and structures should be included in the quality system and what functions they must perform in order to ensure the required quality of service, and then the develop-

ment of the necessary regulations to carry out these functions.

Service quality management system is a set of organizational structures, methods, principles, instruments and incentives for installing, maintaining and, where necessary, improving the quality of services. Quality management system at railway transport is guaranteed by organizational, legal,

economic and social subsystems that carry out complex of measures aimed at ensuring the operation effectiveness and satisfaction of passengers' transportation requirements.

The organizational subsystem is a combination of organizational structure of passenger traffic service quality management, organization of production and labour, technical and technological service delivery, quality management system and operator's policy in the field of passenger traffic service quality. The legal subsystem provides for state regulation of the quality of services of passenger transportation, regulations governing the formation and determination of quality, legal, information and metrological support. The economic subsystem includes: passenger traffic services pricing, quality cost management and risk management, provision of universal services in terms of passenger traffic in the conditions of state pricing, availability of passenger traffic service quality management model, etc. The social subsystem introduces workers to control quality passenger transport services, motivation of workers in accordance with the performance standards of quality and social protection system.

The organization of works in service quality management in rail transport provides for a service quality assurance system and the necessary measures to ensure its effective functioning.

We believe that to create a quality management system for passenger traffic services, you must specify: management entity, object of management and the mechanism of service quality control, i.e. the process of influence of the entity on the object. Thus, the management entity is the basis of quality system – quality service at a railway enterprise (administrative staff, drivers of trains, personnel of services and internal training and control services), the responsibility of which is to achieve and maintain a specified level of quality service. The object of management is the process of providing the service, during which the quality is formed under the influence of management entity.

The goal of management is to ensure the established standards of service quality taking into account the economic interests of passengers and railway enterprises. When determining the management goal, it is necessary to specify a set of service features and the required level of its quality, and to find out whether they meet the needs of passengers. Then it is necessary to ensure the achievement of this goal at an acceptable level of

cost and profitability for a railway enterprise and affordability of service tariff to a passenger.

Satisfaction of a passenger during transportation can be achieved only with the harmony between the responsibility of the management, personnel and material resources of railway enterprises and structure of the quality system.

The managerial authority of rail transport is responsible for policy in the field of service quality and passenger satisfaction. Implementation of the policy depends on how well the management ensure development and effective operation of the quality management system.

The railway enterprise's policy in the field of quality defines the goals, objectives and principles of its activities, and its senior management commitment to quality.

The managerial authority of railway enterprises should develop and document the quality policy taking into account: class of services provided; tasks in the field of service quality; methods of implementation of tasks in the field of service quality; the role of personnel responsible for the implementation of the service quality policy.

Implementation of enterprise's policy in the area of service quality requires that when setting the tasks, the following basic goals were determined:

- Passenger satisfaction by continuously improved quality of services, ensured compliance with legal requirements;
- Continued compliance with the requirements and increased efficiency of the quality management system and its processes on the basis of decisions and actions based on analysis of actual data, operation and results of the monitoring and measurement of services, processes and quality management system as a whole;
- Continuous improvement of the processes cthat ensure provision of the services with best indicators of passenger satisfaction;
- Constant interaction with major operators on quality;
- Technical re-equipment through the use of modern technology and equipment and improvement on this basis of the quality of services;
- Rise of material interest and continuous improvement of social conditions of employees.

Based on the main goals the railway enterprise should formulate a set of the following tasks and

measures in the field of quality:

- Increased revenues from passenger service and provision of quality services;
- Marketing research of population demand for transportation services based on surveys, questionnaires, statistics;
- Creation of an expanded network of service centres;
- Licensing, standardization and certification of services in transport;
- Creation of automated information system network for reservation and sale of main and additional transport services;
- Economic feasibility study of fare for seats in certain types of cars and maintenance services;
- Registration of applications for basic and additional services in person, by phone, email, the Internet, visit to a home or business;
- Ensuring completeness and timeliness of settlements between a passenger and a railway enterprise:
- Ensuring technical and technological training of passenger rolling stock to travel;
- Information service for passengers on transport services, tariffs and prices;
- Collection and analysis of information on the quality of passenger service and quality of sold services, own and those of competitors;
- Improvement of existing and introduction of new of services on the basis of supply and demand;
- Ensuring strict compliance of services provided to passengers with international standards and requirements of customers;
  - Training of highly qualified staff.

To perform the quality tasks by railway enterprises it is advisable to propose the structure of the quality management system, allowing for all stages of the provision of services to implement effective management of the service quality, to measure and improve it.

When forming the passenger traffic service quality management system one must take into account a number of principles (Fig. 2):

1. Technological principle. High quality of passenger transport services requires high technological performance of services by professionally trained personnel. This principle is realized through direct interaction if rail structures: passenger companies, stations, various urban transport services, catering services, as well as with the

mode of operation of hotels, cafes, restaurants, museums, exhibitions and other organizations.

- 2. Economic principle. Provides break-even operation and full cost recovery of fixed corporate service departments. To implement this principle, it is important to determine the correct price and amount of services to be sold, which will allow achieving the balance of income and expenditure.
- 3. Marketing principle. The basic principle of market orientation of service must be targeted, high-quality, timely and reflect the desires and needs of passengers. The workers of production departments need to master the art of passenger service, continuously improve the technology of service, reduce cost, accelerate service without reducing quality, and value their customers.
- 4. Logistic principle. It is a safe «door to door» carriage of passengers in the shortest possible time with maximum comfort which provides a full range of services throughout the chain, from the onset wish to travel to journey completion. Travel arrangements can be divided into several parts or operations: purchase of a ticket, the trip from place of residence to the station and delivery of luggage, travel by train and the trip from the station to the destination (business travel, vacation, treatment). All of the operations are inter-connected for a passenger and independent for the service railway structures, they run separately and are not combined in a single service cycle, require a lot of consumption of time, effort and energy of the passengers. As a result, the journey instead of satisfaction of a passenger leaves a negative impression. Logistics service approach provides a full set of services that remove these problems from passengers, both in suburban and distant traffic.
- 5. Hospitality principle. Ways and quality of service should be the same for all paying customers. Understanding of passenger's needs, desire to serve him/her as a dear guest, to help and assist attracts customers because the well-served customer is a kind of «living ads» among his/her friends, co-workers and creates a positive image.

Satisfaction of passengers with traffic can be achieved only with the harmony between the responsibility of the management, personnel and material resources of railway enterprises and structure of the quality system.

Rail transport operation should be assessed from the standpoint of meeting the needs of pas-

sengers, because they are not interested either in the rate of empty mileage or performance of the locomotive.

The process of passenger traffic service quality management includes fulfilment of the following functions:

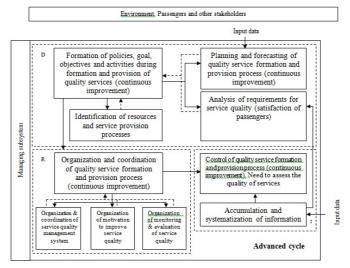
- Forecasting. Analysis of trends in passenger traffic service quality of the railway enterprises; analysis of services in the present; identification of the main patterns of quality and extrapolation of trends;
- Planning. Identification of targets in the field of service quality; determination of the resources (human, material, financial, information) and the means by which it is possible to achieve the set targets of quality improvement;
- Organization. Streamlining of the object of management, identification of all components of service quality; creation of a single informationmeasuring system;
- Coordination. Solving of current issues and coordination of on-going activities to build passenger traffic service quality;

- Motivation. Development and taking the appropriate decisions that encourage staff to activities for ensuring quality performance of certain objectives of railway enterprises.
- Regulation. Taking operational decisions and their implementation in order to eliminate the deviations discovered as a result of service quality control; forming of methods for integrated assessment of passenger traffic service quality at the railway enterprises on the basis of adaptation of differentiated methods for assessing the quality of services;
- Control. Revealing the deviations from the planned passenger traffic service quality management processes; identifying the need to assess the quality of services (analysis, accounting, performance monitoring, questioning of users).

The passenger traffic service quality management system of railway enterprises is structurally considered as a set of managing and managed subsystems (entity and object of management) (Fig. 3, 4).

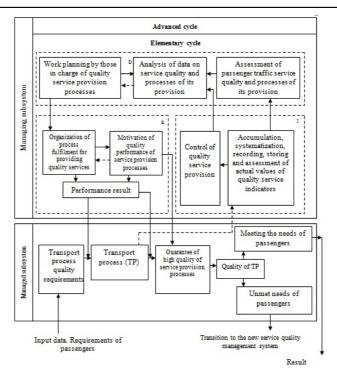


Fig. 2. Basic principles of passenger traffic service quality management system (developed by the author)



Source: adapted and developed in [1, p. 9]

Fig. 3. The passenger traffic service quality management system of railway enterprises, direct communication feedback. Advanced cycle



Source: adapted and developed in [1, p. 9]

Fig. 4. The passenger traffic service quality management system of railway enterprises, direct communication feedback. Elementary cycle

The managing subsystem is presented in the form of relationship of two management cycles – Advanced (functions related to the development and mainstreaming of effective passenger traffic service quality management system of railway enterprises) and Elementary (management of quality of certain types of service providing processes) [1, p. 7].

The service quality management system covers all stages of the life cycle of passenger rail transport services: marketing and transport service market research, analysis of requirements to quality of services, planning and forecasting of services, service provision, service control and quality assessment process, passenger satisfaction study process.

The functions of passenger traffic service quality management by railway enterprises is divided into three main blocks: determining (D) – forecasting and planning functions; rendering (R) – organization, coordination, control, motivation functions; information-control (I) – control function (Fig. 3, 4) [1, p. 7].

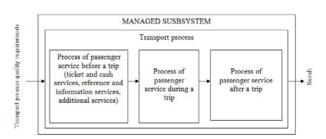


Fig. 5. The transport process of passenger traffic by railway enterprises

Analysis of the current passenger traffic service quality management system of railway enterprises is carried out to establish its compliance with State Standards of Ukraine ISO 9000:2007 and includes:

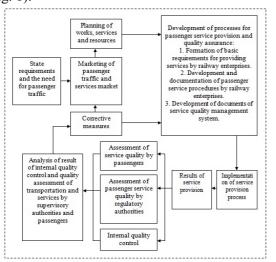
- Analysis of quality elements and their relationships as a part of a common set of services provided to passengers, including the basic service carriage and maintenance services;
- Analysis of quality parameters for each separate service;
- Calculation and analysis of the average quality indicators;
- Comparing the quality from the position of a carrier and that of a passenger;

- Analysis of the «structural inclusion» of the quality of works into the quality of services and further – into the quality of the enterprise [3].

The quality tools include various methods and techniques for the collection, processing and presentation of quantitative and qualitative data of the passenger traffic services of the railway enterprises. All quality tools can be grouped by purposes of their use:

- Quality control tools. Without control one cannot control the quality and increase it. Most of the control tools are based on the methods of mathematical statistics;
- Quality management tools. The methods that basically use quality indicators of service, they can organize the information, structure it in accordance with certain logic rules and use it to make grounded management decisions;
- Quality analysis tools. The methods used to optimize and improve services;
- Quality design tools. The methods used to create services that realize maximum value for the consumer.

Within the quality management system it is necessary to develop the methodological approaches that establish requirements for the provision of service-related processes, including three basic processes (marketing, design and provision of services), operating in the «quality loop» (Fig. 6).



Source: generalized and systematized based on [9, p. 11]

Fig. 6. «Quality loop» of passenger traffic services of railway enterprises

The passenger traffic service quality management system of railway enterprises is an integral part of the rail transport management in general and operated simultaneously with this system. Interaction of quality system covers all stages of the «quality loop» from the study of variable demand for rail services to the final meeting of requirements of regulations or passengers' requirements to the quality.

Relationship of rail transport services with passengers and with all facilities that ensure the solution of service quality management tasks is realized with the help of "quality loop".

Analysis of capabilities to meet the requirements of passengers on the basis of available resources is conducted during the railway services market research. The result of the analysis of railway services market research is planning of works and resources necessary for their implementation, determination of activities of the railway enterprises.

The overall planning of quality assurance works is made during development of a comprehensive quality program, which shall contain the following sections: goals and objectives of railway enterprises for the next period; list and terms of measures, including the timing and volume of internal audits; specific assignment of responsibilities and powers of the staff of railway enterprises to implement the planned activities; plan of equipment upgrading or retrofitting; plan of staff training (advanced vocational training) (including the quality department staff); methodology for assessing the goal of the program; correction procedure of the program in case of non-compliance; plan of financing the quality assurance works.

Implementation of documentary provision of the selected activities is conducted when developing the passenger service provision and quality assurance processes (formation of the basic requirements for the provision of services by railway enterprises; development and documentation of passenger service procedures by railway enterprises; elaboration of service quality management system documents).

The documentation of service quality management system of railway enterprises is designed to ensure the unity and permanent understanding of the quality assurance goals and objectives, processes and procedures. It provides an opportunity

for an objective assessment of the quality system, allow solving the emerging controversial issues regarding quality.

The documentation of quality management system ensures the assignment of duties and responsibilities of management and executors on general quality management, establishes the procedure for interaction while fulfilling the functions and solving problems to ensure the quality of rail services.

Implementation of service provision covers the full range of processes for organization and provision of rail services; it can be subjected to additional controls at any stage of works both by the quality service of railway enterprises and by the public authorities. On the basis of analysis of the requirements for work quality and performed services one forms the corrective and preventive measures, which close the cycle (general feedback) of service provision by the railway enterprises.

# Originality and practical value

The work presented the developed passenger traffic service quality management system targeted to meet the expectations of passenger from transport process while taking into account the economic interests of railway enterprises. The basis of this system is conceptual principles, namely, goal, objectives, subject, object, principles, functions and practical recommendations, which generally determine the relationship of the basic elements of the passenger traffic service quality management in rail transport. The practical value of the obtained results is that their implementation will enable railway enterprises to forecast the improvement of service quality level, taking into account their specific features and create solutions for control and regulation of processes and passenger traffic service quality effects. The theoretical and methodological provisions may be used in the formation, operation and improvement of the quality management system for passenger traffic services in rail transport.

### **Conclusions**

For effective operation of rail transport, it is necessary not only to have different resources but also to develop the processes for provision of quality services and mechanisms of their interaction. So this shows the need to build a special system for quality management, which is a set of organizational structure, distribution of authority and responsibilities, methods and resources required to establish, maintain and improve the quality of services of passenger rail transport.

Therefore, railway enterprises should always strive for the highest possible satisfaction of passengers' desires, expansion of variety of services, increase in volume of work, improvement of economic performance, increased goodwill by providing quality services on time and at competitive prices.

#### LIST OF REFERENCE LINKS

- 1. Василенко, Т. Є. Управління якістю послуг пасажирських підприємств автомобільного транспорту : автореф. дис. ... канд. екон. наук : 08.07.04 / Василенко Тетяна Євгенівна ; Укр. держ. акад. залізн. трансп. Харків, 2006. 19 с.
- 2. Гарбузова, В. В. Управление качеством и сертификация пассажирских перевозок на железнодорожном транспорте: учеб. пособие / В. В. Гарбузова. Хабаровск: Изд-во ДВГУПС, 2013. 92 с.
- 3. ДСТУ ISO 9000:2007. Системи управління якістю. Основні положення та словник термінів. На заміну ДСТУ ISO 9000-2001; надано чинності 2008-01-01. Киів : Держпоживстандарт України, 2008. 35 с.
- 4. Должанський, А. М. Менеджмент якості та системи управління якістю : навч. посіб. / А. М. Должанський, Н. М. Очеретна, І. М. Ломов. Дніпропетровськ : Свідлер А. Л., 2011. 450 с.
- Мазур, И. И. Управление качеством: учеб. пособие / И. И. Мазур, В. Д. Шапиро; под ред. И. И. Мазура. – Москва: Высш. шк., 2003. – 334 с.
- 6. Моргулець, О. Б. Менеджмент у сфері послуг : навч. посіб. / О. Б. Моргулець. Киів : Центр учбової літ-ри, 2012. 384 с.
- Підгаєць, П. П. Система управління якістю як інструмент вдосконалення діяльності органу місцевого самоврядування : метод. посіб. / П. П. Підгаєць, І. І. Бригілевич // Швейцар.укр. проект «Підтримка децентралізації в Україні – DESPRO». – Киів, 2012. – 134 с.
- 8. Салимова, Т. А. Управление качеством : учеб. пособие по спец. «Менеджмент организации» / Т. А. Салимова. 2-е изд., стер. Москва : Омега-Л, 2008. 414 с.

- Управління якістю інфокомунікаційних послуг : навч. посіб. / Є. Г. Борисевич, В. Г. Буряк, І. В. Станкевич, Є. М. Стрельчук. − Одеса : ОНАЗ, 2010. − 272 с.
- 10. Яновський, П. О. Пасажирські перевезення: навч. посіб. / П. О. Яновський. Київ : НАУ,  $2008.-469~\mathrm{c}.$
- 11. Gronroos, C. From scientific management to service management: a management perspective for the age of service competition / C. Gronroos //
- Intern. J. of Service Industry Management. 1994. № 5. Iss. 1. P. 5–20. doi: 10.1108/09564239410051885.
- 12. Kotler, P. Principles of marketing / P. Kotler, G. Armstrong. 14<sup>th</sup> ed. New Jersey: Prentice Hall, 2012. 740 p.
- Rathmell, J. M. What is Meant by Service? / J. M. Rathmell // J. of Marketing. – 1966. – Vol. 30. – Iss. 4. – P. 32–36. doi: 10.2307/1249496.

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# РОЗВИТОК СИСТЕМИ УПРАВЛІННЯ ЯКІСТЮ ПОСЛУГ ПАСАЖИРСЬКИХ ПЕРЕВЕЗЕНЬ ПІДПРИЄМСТВ ЗАЛІЗНИЧНОГО ТРАНСПОРТУ

Мета. На сучасному етапі розвитку економіки України управління якістю послуг пасажирських перевезень підприємств залізничного транспорту стало одним із головних завдань забезпечення їх ефективної діяльності. В умовах реформування залізничного транспорту та посилення конкуренції на ринку транспортних послуг, при невідповідності технологічного рівня перевезень зростаючим потребам суспільства та стандартам якості надання транспортних послуг, пріоритетного значення набуває проблема створення системи управління якістю послуг пасажирських перевезень на залізничному транспорті. Це питання необхідно дослідити в статті. Методика. Для досягнення поставленої мети та забезпечення високого рівня якості послуг пасажирських перевезень на залізничному транспорті, що передбачає поєднання підходів із позиції споживачів (визначення їх задоволеності) і підприємств залізничного транспорту (вимір результатів та процесів формування якості послуг), в роботі запропоновано систему управління якістю послуг пасажирських перевезень. Запропонований методичний підхід до формування системи управління якістю послуг пасажирських перевезень на залізничному транспорті реалізує принципово нову схему взаємодії елементів при наданні послуги, в якій воєдино пов'язані ресурси (кадрові, матеріальні, фінансові, інформаційні), засоби, інструменти і процеси, в результаті здійснення яких виникає якісна транспортна послуга. Результати. Ефективне функціонування системи управління якістю послуг пасажирських перевезень дозволяє виявити динаміку поліпшень наданих послуг підприємствами залізничного транспорту та побудувати систему, що самонавчається на принципах постійного удосконалення. Обгрунтовано нові принципи управління якістю пасажирських перевезень, які були сформовані на основі загальних принципів управління в цілому, принципів управління якістю і принципів управління на залізничному транспорті. Наукова новизна. Розроблено систему управління якістю послуг пасажирських перевезень, орієнтовану на задоволення очікувань пасажирів від транспортного процесу з одночасним урахуванням економічних інтересів підприємств залізничного транспорту. Основою цієї системи є розроблені концептуальні засади, а саме – мета, завдання, предмет, об'єкт, принципи, функції, практичні рекомендації, які в цілому визначають взаємозв'язок основних елементів у системі управління якістю послуг пасажирських перевезень залізничним транспортом. Практична значимість. Практичне значення отриманих автором результатів полягає в тому, що їх реалізація дозволить підприємствам залізничного транспорту спрогнозувати підвищення рівня якості послуг із урахуванням їх конкретних особливостей та сформувати рішення щодо контролю, регулювання процесів і результатів якості послуг пасажирських перевезень. Обґрунтовані теоретичні та методичні положення можуть бути використані при формуванні, функціонуванні й вдосконаленні системи управління якістю послуг пасажирських перевезень на залізничному транспорті.

*Ключові слова:* якість; транспортна послуга; система управління якістю; пасажирські перевезення; підприємства залізничного транспорту

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# РАЗВИТИЕ СИСТЕМЫ УПРАВЛЕНИЯ КАЧЕСТВОМ УСЛУГ ПАССАЖИРСКИХ ПЕРЕВОЗОК ПРЕДПРИЯТИЙ ЖЕЛЕЗНОДОРОЖНОГО ТРАНСПОРТА

Цель. На современном этапе развития экономики Украины управление качеством услуг пассажирских перевозок предприятий железнодорожного транспорта стало одной из главных задач обеспечения их эффективной деятельности. В условиях реформирования железнодорожного транспорта и усиления конкуренции на рынке транспортных услуг, при несоответствии технологического уровня перевозок растущим потребностям общества и стандартам качества предоставления транспортных услуг, приоритетное значение приобретает проблема создания системы управления качеством услуг пассажирских перевозок на железнодорожном транспорте. Этот вопрос необходимо рассмотреть в статье. Методика. Для достижения поставленной цели и обеспечения высокого уровня качества услуг пассажирских перевозок на железнодорожном транспорте, предусматривающих сочетание подходов с позиции потребителей (определение их удовлетворенности) и предприятий железнодорожного транспорта (измерение результатов и процессов формирования качества услуг), в работе предложена система управления качеством услуг пассажирских перевозок. Предложенный методический подход к формированию системы управления качеством услуг пассажирских перевозок на железнодорожном транспорте реализует принципиально новую схему взаимодействия элементов при предоставлении услуги, в которой воедино связаны ресурсы (кадровые, материальные, финансовые, информационные), средства, инструменты и процессы, в результате осуществления которых возникает качественная транспортная услуга. Результаты. Эффективное функционирование системы управления качеством услуг пассажирских перевозок позволяет выявить динамику улучшений предоставляемых услуг предприятиями железнодорожного транспорта и построить систему, которая самообучается на принципах постоянного совершенствования. Обоснованы новые принципы управления качеством пассажирских перевозок, которые были сформированы на основе общих принципов управления в целом, принципов управления качеством и принципов управления на железнодорожном транспорте. Научная новизна. Разработана система управления качеством услуг пассажирских перевозок, ориентированная на удовлетворение ожиданий пассажиров от транспортного процесса с одновременным учетом экономических интересов предприятий железнодорожного транспорта. Основой этой системы являются разработанные концептуальные основы, а именно цель, задачи, предмет, объект, принципы, функции, практические рекомендации, которые в целом определяют взаимосвязь основных элементов в системе управления качеством услуг пассажирских перевозок железнодорожным транспортом. Практическая значимость. Практическое значение полученных результатов заключается в том, что их реализация позволит предприятиям железнодорожного транспорта спрогнозировать повышение уровня качества услуг с учетом их конкретных особенностей и сформировать решение по контролю, регулированию процессов и результатов качества услуг пассажирских перевозок. Обоснованные теоретические и методические положения могут быть использованы при формировании, функционировании и совершенствовании системы управления качеством услуг пассажирских перевозок на железнодорожном

*Ключевые слова*: качество; транспортная услуга; система управления качеством; пассажирские перевозки; предприятия железнодорожного транспорта

# **REFERENCES**

- 1. Vasylenko T.Ye. *Upravlinnia yakistiu posluh pasazhyrskykh pidpryiemstv avtomobilnoho transportu*. Avtoreferat Diss. [Management of the service quality of passenger automobile transport enterprises. Author's abstract.]. Kharkiv, 2006. 19 p.
- 2. Garbuzova V.V. *Upravleniye kachestvom i sertifikatsiya passazhirskikh perevozok na zheleznodorozhnom transporte* [Management of quality and certification of passenger transportations at the railway transport]. Khabarovsk, Izdatelstvo DVGUPS Publ., 2013. 92 p.

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#### ЕКОНОМІКА ТА УПРАВЛІННЯ

- 3. DSTU ISO 9000:2007. Systemy upravlinnia yakistiu. Osnovni polozhennia ta slovnyk terminiv [State Standard of Ukraine ISO 9000:2007. Systems of quality management. The main principles and glossary]. Kyiv, Derzhpozhyvstandart Ukrainy Publ., 2008. 35 p.
- 4. Dolzhanskyi A.M., Ocheretna N.M., Lomov I.M. *Menedzhment yakosti ta systemy upravlinnia yakistiu* [Quality management and quality control systems]. Dnipropetrovsk, Svidler A.L. Publ., 2011. 450 p.
- 5. Mazur I.I., Shapiro V.D. *Upravleniye kachestvom* [Quality management]. Moscow, Vysshaya shkola Publ., 2003. 334 p.
- 6. Morhulets O.B. *Menedzhment u sferi posluh* [Management in the service industry]. Kyiv, Tsentr uchbovoi literatury Publ., 2012. 384 p.
- 7. Pidhaiets P.P., Bryhilevych I.I. *Systema upravlinnia yakistiu yak instrument vdoskonalennia diialnosti orhanu mistsevoho samovriaduvannia* [Quality management system as a tool for improvement of local government]. Kyiv, TOV «Sofiia-A» Publ., 2012. 134 p.
- 8. Salimova T.A. *Upravleniye kachestvom* [Quality management]. Moscow, Izdatelstvo «Omega-L» Publ., 2008. 414 p.
- 9. Borysevych Ye.H., Buriak V.H., Stankevych I.V., Strelchuk Ye.M. *Upravlinnia yakistiu infokomunikatsiinykh posluh* [Quality management of information and communication services]. Odesa, ONAZ Publ., 2010. 272 p.
- 10. Yanovskyi P.O. Pasazhyrski perevezennia [Passenger transportations]. Kyiv, NAU Publ., 2008. 469 p.
- 11. Gronroos C. From scientific management to service management: a management perspective for the age of service competition. *International Journal of Service Industry Management*, 1994, no. 5 (1), pp. 5-20. doi: 10.1108/09564239410051885.
- 12. Kotler P., Armstrong G. Principles of marketing. New Jersey, Prentice Hall Publ., 2012. 740 p.
- 13. Rathmell J. What is Meant by Service? *Journal of Marketing*, 1966, no. 30, pp. 32-36. doi: 10.2307/1249496.

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