

# Ways of Using Innovative Marketing Technologies in the Passenger Transport System

Berdiyurov Temur Azamatovich

Tashkent State University of Economics. Independent Researcher

E-mail: berdiyurov8411@mail.ru;

**Abstract-** This article explores the theoretical aspects of using innovative marketing technologies in passenger transport. An analysis has been made to expand access to public transport for consumers in the transport services market. Also, the factors that stimulate the development of innovative marketing technologies in the market of passenger transport are systematized and opportunities for their use are identified.

**Keywords:** Transportation, passenger transportation, marketing, innovative marketing, marketing strategies, services market, motivation, public transport.

## 1. INTRODUCTION

The development of the transport system, which is one of the most important infrastructure sectors of the world economy, is one of the economic policy priorities of each country. In this regard, globalization of international trade and economic relations, high competition in the domestic and foreign markets, investment activity, entrepreneurship and tourism potential are determined by the development of the transport system.

The strategy of development of the Republic of Uzbekistan for 2017-2021 aims at "radical improvement of transport services to the population, increase of passenger safety and reduction of emissions into the environment, acquisition of new comfortable buses, construction and reconstruction of bus terminals and stations". The need for further research on the use of marketing innovations in the transport services market has also been highlighted.

The President of the Republic of Uzbekistan dated March 6, 2018 N PP-3589 and 2019 "On measures to further improve the system of road transport management" adopted in order to further develop the provision of motor transport services in the country, to improve passenger safety and reduce air emissions. Decree No. PP-4230 of March 6, 2013 "On Measures to Improve the Cargo and Passenger System" The problem of systematic research on the development of advanced information and communication technologies and intelligent transport systems in the field.

Worldwide, car ownership has increased significantly, causing a number of road safety and human safety issues, and the need for consumers to use their own cars has decreased. The practice of restricting the use of personal vehicles, which is defined as stringent measures to prevent traffic congestion in urban and rural areas, is the primary measure, but it also restricts the development of certain sectors of the economy (the automotive industry). The most effective and alternative way of preventing this situation is to use the indirect methods of increasing public transport use and to ensure its quality.

From the foregoing, the research relates to the relevance of the problem by using innovative marketing technologies that increase the level of public transport and ensure the cohesion of passenger transport systems while competing in the market of passenger transportation services.

## 2. LITERATURE REVIEW

The need to create marketing innovations in passenger transport is driven by competition in the industry, the difficulty of urban mobility, the allocation of parking spaces in cities, and the increased availability of vehicles. Without innovative technologies in transport marketing, it is impossible to make significant changes to optimize passenger traffic, improve the quality and culture of services, and expand the range of services. This entails the accumulated scientific experience and innovative use of innovative marketing technologies in direct application of existing transportation systems to passenger transport systems, and a new approach to its organizational and economic mechanisms [1].

Reviews of the literature are based on the link between innovation and enterprise competitiveness [2], consumer and competitor orientation [3], business strategies [4] [5] [6] and marketing capabilities [7]. The main objectives of marketing are to increase the effectiveness of marketing activities, increase sales and ensure competitiveness.

The scientific literature devoted to the study of the factors driving marketing innovation focuses primarily on the development of scientific research, technological capabilities, and the acquisition of scientific research

information [8]. At the same time, it is based on theories of marketing innovation formation as a result of technological and brand innovation.

In this regard, domestic and foreign scientists are doing extensive research. Foreign scientists A. Ibraeva and J. Figueira, who conducted research on this issue, carried out research in their research aimed at creating a system that would allow consumers to obtain timely information on transportation routes. [9] The study is based on the fact that access to information for all segments of the population is ensured by the effectiveness of passenger transport services.

Influence of information and communication technologies on the introduction and development of marketing innovations in passenger transport Geerlings H. The study found that consumer data, such as travel, unexpected delays, travel time, and duration of travel, were the main drivers for innovation in public transport [10].

The first study on the implementation and effectiveness of innovative payment systems in the transport system was conducted by Helmreich and Leiss, who studied the efficiency of remote payment systems implementation by tourists and travelers [11]. The main emphasis was on the introduction of Smart Cards, a non-cash ticket system, based on methodological features of its balance, transaction history, and user profile functionality. As you know, today the use of Smart-cards is increasing. Smart-cards are an easy-to-use system for applications such as auto-route instructions, driver information, and congestion of vehicles, tolls for public transport.

The development of innovative marketing technologies and state regulatory mechanisms in the transport system have been reviewed in the studies of Zvanveld and other scholars [12]. According to the researcher, along with technological development, institutional and organizational development also play an important role in shaping marketing innovation in public transport.

Innovation in this system is based on Sundbo and Gallowitz's research that customer service is a key factor in promoting innovation in customer, competitors, public sector and suppliers, and the creation of a competitive environment [13].

Scientists from Uzbekistan MA Ikramov, YaKKarrieva, M.Irisbekova, M.Ravshanov, T.Kh. Kadyrov's research on the organization, management, and innovative development of marketing activities in the automobile transport system [14] [15]. Methodological aspects of improvement of innovative marketing activities in transport system have been considered in scientific researches of A. Kakhhorov [16]. It explores the problems of using innovative marketing technologies in the transport system, and has prepared proposals for the use of innovative marketing in the shipping industry as the main object of research.

The results of the research show that the use of innovative marketing technologies in the passenger transport system, the prospects for expanding the innovative marketing activities, and the scientific and methodological framework for evaluating the effectiveness are not adequately covered in foreign and national economic literature.

### 3. ANALYSIS AND RESULTS

Significant progress has been made in the development of marketing innovations in the country over the past decade. In our country, great attention is paid to the implementation of innovation in transport. In particular, 2046 innovations were implemented in all sectors of the economy in 2017, resulting in the creation of more than 15 trillion soums of innovative products. In the field of transport and storage, 23 innovations were implemented in 2017 and their share in total innovation was 3.3%. It is noteworthy that in 2015-2017, only three marketing innovations in transportation and storage were implemented (Table 1). Although the introduction of marketing innovations in many industries during the analyzed period has been growing at a high rate, the tendency for innovation in the transport sector is declining.

Table -1: Innovative products and services created in the field of transport services

Innovation	Year - 2015	Year - 2016	Year - 2017
Technological innovation	135	42	15
Marketing innovations	1	2	0
Organizational innovation	3	7	8
Total	139	51	23

If we analyze the structure of innovation in our country, we can say that technological and organizational innovations are insufficient in the amount of marketing innovations, and that we cannot give a positive assessment of the innovation of marketing in relation to the number of enterprises.

As Table 1 shows, innovation and dissemination of innovations are still low. Although, since the early days of independence, efforts have been undertaken to establish and improve the national transport system, marketing and innovation are becoming more difficult. Freight and passenger transportation by road is the main link in the system, and during the years of analysis was limited to the introduction of only one marketing innovation.

It is well-known that in the global passenger transportation market, there is a tendency to shift towards a

customer-centric approach, focusing on new business models and innovations [17]. In particular, the Smart, Green and Integrated Transport program of the CIPTEC (Collective Innovation ForumPublic Transport in European Cities) project, implemented under the EU's Garizon 2020 concept, focuses on expanding the scope of public transport.

The main areas of CIPTEC programming are:

- Marketing (customer identification, marketing research, consumer intelligence)
- Consumer behavior (advanced motivational research, consumer behavior study, etc.);
- Innovations (krodsourcing, collective intelligence, co-creation, innovation based on the concepts of business and social harmony);
- Development (socio-economic, technological and socio-ethical and management);

Businesses operating in the public transport industry face a number of challenges in developing innovative development solutions, often due to the lack of incentives for innovation in public services, as well as the high participation of small businesses in the transport sector.

In our opinion, it is necessary to identify the factors that will contribute to the implementation of marketing innovations in the transport system of the country at a difficult time. Based on this, it has enabled 1594 articles in the internationally acclaimed ScienceDirect database, 96 in the Web of Knowledge database and 26 related articles in various databases through search engines. From the total collection, 94 scientific articles were selected on a random basis, excluding various disparate criteria and same articles (67 from ScienceDirect, 18 from Web of Knowledge and 9 from other databases). According to the articles database, the motivation factors for innovation in passenger transport are summarized in Table 2.

Table 2: Grouping of scientific articles by the number of factors that motivate innovation in passenger transport marketing

Number of motives	number of journals	share
1	40	43 %
2	37	39 %
3	13	14 %
4	2	2 %
5	1	1 %

According to the results of the authors' articles, based on the number of factors contributing to their innovation in passenger transport marketing, 43% of the articles in the sample considered only one factor contributing to the innovation in passenger transportation. From this, it is clear that the system of factors that stimulate marketing innovations is still not sufficiently developed by scientists of the world.

It is possible to achieve a perfect system of factors that stimulate innovation by dividing the total of 94 scientific articles published in 2015-2018 by group of factors. Accordingly, in Table 3, articles on the 16 factors that drive innovation in the transport system are highlighted (Table 3).

Table 3: Scientific articles published on the factors that stimulate innovation in passenger transport

Factors that motivate innovation	Contents	The number of observations
Environmental situation	Problems of combating climate change, preserving urban geoculture and reducing pollution	49
Politics and Law	Adoption of public policy and legislation in the field of public transport, government subsidies	34
Technology development	Technological changes related to public transport, for example: electric cars (excluding information and communication technologies).	19
Development of information communication	Development of information and communication technologies, internet and communication companies	15
Management and organization	Forms of transport operators and transport networks, management status and monopolies	9
Consumer behavioral changes	Innovations in public transport can only be achieved by introducing new behaviors to customers and users	9
Development of public-private partnership practice	Aspects of public-private sector relations, public financing of private services, and others.	8

Cost advantage strategies	Cost reduction actions, ticket prices and marketing activities	8
Development of methodology and modeling practices	Processes modeling or testing new transport networks to better design or evaluate the impact of changes to existing networks.	5
Quality of service and customer satisfaction	This group includes research on service quality and customer satisfaction	3
Social status	Social integration and access to services of all categories of consumers is one of the main goals of public transport	3
Design and comfort of vehicles	As with many services, the convenience, design and so on of public transport. It also takes into account the distance between public transport stops, as well as the design of vehicles and parking lots that allow different customer profiles to be used.	2
Transport safety	Attempts to create safety for passengers and carriers on public transport	2
The practice of pricing	Public transport is often seen as a public service. Therefore, the price often does not reflect the actual cost of the service. At the same time, different pricing strategies (such as different prices at certain hours) can be used to change or reduce demand.	2
Improvement of the population	A number of health problems can be improved by using public transport or using public transport, such as traffic accidents, stress-related illnesses, or pollution-related actions.	2
Development of tourism	Travel information is seen as an important factor in driving public transport, and they also contribute to innovation in the field.	2

*Source:* Prepared by the author based on scientific articles published by world scientists in 2015-2018

This study allowed us to identify key innovative motivation factors for urban public transport. Through the review of the reviewed scientific articles, the three main innovative motives - environmental and environmental, legislative policy and technology change - can be identified as key factors that stimulate innovation in public transport. However, we believe that the other 13 factors that stimulate innovation in passenger transport should also be taken into account when setting strategic objectives.

It should not be taken as the core of innovation for public transport pricing innovations as well. Pricing innovation is key to improving innovative marketing strategies.

The three main innovative motivations identified should be identified by the governing bodies of the public transport system as an important innovation area.

Along with the above, wide use of information and communication technologies in the system is one of the main directions of innovation promotion. Due to the limited resources, it is not possible to apply all the innovation and cost-cutting incentives. In our view, environmental and environmental motivations are a tool that is effectively perceived by consumers.

#### 4. CONCLUSION/RECOMMENDATIONS

The conclusion of the study is that there are a wide range of motivations for innovation in public transport, which is widely discussed by international scholars. The results of the research will allow to identify the most important strategic directions of further innovative development of the passenger transport system in the Republic.

It also revealed that the implementation of innovations in passenger transportation is a complex process and there is little research done in the country. In our opinion, identifying sources that encourage innovation is the first step in shaping the most important factors in managing innovation in the transport industry and making strategic decisions.

In general, the most effective direction of the commercialization and introduction of the most advanced technologies is the transition from direct, indirect methods of innovation in transport infrastructure and other areas of our economy. In the commercialization of innovations, it will be related to the enterprise itself, as well as its infrastructure and innovative development of consumers, that is, other sectors of the economy.

## REFERENCES

- [1]. The Decree of the President of the Republic of Uzbekistan dated February 7, 2017 № PF-4649 "On the Strategy of Action for the Development of the Republic of Uzbekistan for 2017-2021";
- [2]. Aghion, P., Bloom, N., Blundell, R., Griffith, R., & Howitt, P. (2002). Competition and innovation: An inverted U relationship: National Bureau of Economic Research.
- [3]. Aaker, D. A. (1989). Managing assets and skills: the key to a sustainable competitive advantage, in "Management Review", California, 1989;
- [4]. Porter, M. E. (1985). Competitive strategy: Creating and sustaining superior performance: FreePress, New York.
- [5]. Collier, D. W. (1985). Linking business and technology strategy. *Strategy & Leadership*, 13(5), 28-44;
- [6]. Zott, C., & Amit, R. (2007). Business model design and the performance of entrepreneurial firms. *Organization Science*, 18(2), 181-199.;
- [7]. Zott, C., & Amit, R. (2008). The fit between product market strategy and business model: implications for firm performance. *Strategic Management Journal*, 29(1), 1-26.
- [8]. Weerawardena, J. (2003). The role of marketing capability in innovation-based competitive strategy. *Journal of Strategic Marketing*, 11(1), 15-35
- [9]. Medrano-Sáez, N., & Olarte-Pascual, M. C. (2012). Marketing innovation as an opportunity in a situation of uncertainty: the Spanish case. *Soft Computing in Management and Business Economics* (pp. 327-341): Springer.
- [10]. A.Ibraeva, J. Figueira de Sousa. Marketing of public transport and public transport information
- [11]. Provision. *Procedia - Social and Behavioral Sciences* 162 ( 2014 ) 121 – 128. ScienceDirect. <https://core.ac.uk/download/pdf/82213144.pdf>.
- [12]. Geerlings, H. (1999) Meeting the Challenge of Sustainable Mobility: The Role of Technological Innovations, Heidelberg, Springer Verlag.
- [13]. Helmreich, W. & Leiss, U. (2000) Forecasting and Assessment of New Technologies and Transport Systems and their Impacts on the Environment: FANTASIE: Final Report. Brussels, European Commission.
- [14]. Zwaneveld, P., Heyma, A., Korver, W., Anreiter, W., Fischer, T., Marks, H. & Manthey, A. (1999) Overview of Promising Transport Modes Related to New Propulsion Systems: UTOPIA Deliverable D2. Delft, TNO Inro;
- [15]. Sundbo, J. & Gallouj, F. (1998) Innovation in Services: SI4S Project synthesis Work package 3-4. IFRESI-University of Lille.
- [16]. 16. Ikramov I., Abdurakhmanov A., Nazarov M. Economics and Management of Motor Vehicles. Tutorial. . –T .: TARI, 2003.34-45b;
- [17]. Ravshanov MN Economic potential of road-transport complex: problems and solutions. –T .: ME, 2012. -209 p.