

The methodology of management of the tourist transport infrastructure development and its use in the tourism system

Gvantsa Arjevanidze, Karina Melikjanyan, Nargiza Karkashadze, Izolda Dangadze
Akaki Tsereteli State University, 59 Tamar Mepe str., Kutaisi 6400, Georgia

Gvantsa.arjevanidze@atsu.edu.ge k.melikjanyan@bsma.edu.ge , Nargiza.karkashadze@atsu.edu.ge , Izolda.dangadze@atsu.edu.ge

Abstract: *Abstract Today, as tourism is recognized as one of the priority sectors of the economy of Georgia and contributes to the socio-economic development of the country, it is especially important to study the existing tourist transport infrastructure and introduce new innovative technologies in its management. As a result of the conducted research, we can conclude that the existing scientific-methodical and practical approaches in the field of tourism and transport cannot be considered effective enough to ensure the development of tourist transport infrastructure. An algorithm was developed for the development of tourist transport infrastructure. The mentioned method can be recommended in the field of tourism, for the development of tourist transport infrastructure.*

Keywords: TOURISM INDUSTRY, INFRASTRUCTURE, TOURIST CLUSTER, ROLLING STOCK.

1. Introduction

Market conditions at the current stage of tourism development are characterized by several groups of the parameters.

1. Economic parameters:
 - Economic growth and integration;
 - Growth of investment in the tourism industry;
 - An increase in the level of infrastructure development of countries.
2. Political parameters:
 - Development of the tourist policy of states and regions;
 - Simplification of tourist formalities;
 - The influence of political events on tourism demand.
3. Sociocultural parameters:
 - Lifestyle changes;
 - Increased demand for tourist services;
 - Increased requirements of tourists;
 - An increase in the availability of travel and growth of population mobility;
 - Development of information and communication technologies
4. Industry parameters:
 - Development of new tourist destinations;
 - Expansion of the range of tourist services;
 - Change in the forms of interaction with consumers;
 - The growing influence of industry on the economy.

These parameters affect the management methods used in modern tourism management practice in the Imereti region. Today, strategic, conceptual, program and target-oriented approaches are most often used in management [3,4,5]

2. Preconditions and means for resolving the problem

The program and target-oriented method of management is widely used, but it has a number of significant drawbacks, namely:

1. Methodological incompleteness;
2. low degree of connection of management systems with the problems for solution of which they are created;
3. Lack of methods for calculating the economic efficiency of programs;
4. Low efficiency in solving the problems posed by the program;
5. The absence of responsibility for the results of the programs.

These drawbacks are fully applied to the programs built using the program and target-oriented approach, and along with that, we can highlight the lack of an integrative approach in them. However, programs for the development of certain types of transport, transport strategies, the concepts of development of certain areas of the transport industry are irrelevant to the needs of the tourism industry or tourists, despite the increasing impact of tourism on transport. The program should pay great attention to the development of

tourism infrastructure. The program should consider 3 possible scenarios for the development of domestic tourism:

1. The development of tourism infrastructure in all regions regardless of their economic development, infrastructure development and the level of tourist potential;
2. The development of tourism infrastructure in the regions most promising in terms of the development of domestic tourism;
3. The development of tourism infrastructure in the regions most promising for the development of domestic tourism using the cluster approach.

The program chooses the third scenario. As a result of the program activities, it is planned to create a network of modern resort and tourist facilities within the framework of appropriate tourist-recreational and auto-tourist clusters that meet the world standards and can significantly increase the competitiveness of the regional tourist services market. A tourism cluster is a set of tourism and recreational special economic zones created by the decision of a government and located in one or more areas of the territory and municipalities. A tourism cluster is a set of tourism and recreational special economic zones. Special economic zones of tourist and recreational type are another direction of tourism development management in regions. The creation of such zones has two goals: the development of existing resort areas and attracting investment to the regions.

The modern transport industry researchers highlight 5 main areas that can be attributed to the management of the development of transport infrastructure services for tourism, namely: the development of transport infrastructure, improving transport infrastructure management, innovation in transport infrastructure management, changing the role of the state in the management of transport infrastructure and the work of non-governmental organizations and associations.[2,6]

1. Development of transport infrastructure by:
 - improving the street-road network;
 - traffic calming;
 - promotion of "smart driving";
 - improving regulatory support for the transportation industry.
2. Perfection of management of transport infrastructure and traffic through:
 - traffic management;
 - public transport management;
 - using a customer-oriented approach;
 - allocation of lands for parking spaces and parking lots;
 - the use of automated management systems (monitoring, video surveillance, automatic control systems, electronic payments).
3. Introduction of innovations in the field of management of transport infrastructure through:

- the use of intelligent transport systems;
 - the navigation and information services.
4. Changing the role of the state in the process of managing the development of transport infrastructure of tourism is seen by specialists-theorists in the form of the development of various public-private partnership mechanisms.
5. The work of non-governmental organizations and associations

Solution of transport problems in Georgia will help make a mighty leap in the development of the country's economy, improve the living conditions of many segments of the population, and effectively influence most manufacturing sectors and services.

The authors conducted a study of tourism transport infrastructure in the Imereti region on the basis of the method of expert estimation through questioning and surveys of competent practitioners of the management level of transport and tourism. The results of the study are presented in Table 1. In terms of assessing the level of development of tourism transport infrastructure in the regions, the lowest ratings were attributed to bus stations, roadside infrastructure, followed by the road infrastructure (equal number of points), rail transport, road

transport, railway stations and the level of service in transport (equal number of points), the level of staff training in transport is slightly behind the level of specialists in tourism, the same and the highest scores were received by airports and air transport, the degree of interaction between transport and tourism companies. The highest, but not the highest possible rating was attributed to the level of service in tourism.

In general, experts noted the low level of development of transport infrastructure in the regions and the urgent need for a number of state measures to fundamentally change the situation.

Among the main factors of tourism transport infrastructure development, most respondents mentioned attraction of more qualified personnel, state regulation (however, this factor was considered by the respondents in two ways: some of them meant regulation as more active participation of the state in the development of tourism transport infrastructure, others saw deregulation). Attraction of private business, state funding and the combination of all the above factors are seen by specialists as the necessary condition (an equal number of responses). [1,7]

Table 1: Expert estimates of the level of development of tourism transport infrastructure in the region by its components.

Airports	4	Road infrastructure	3
Air transport	4	Roadside infrastructure	2
Railway stations	2	Level of services in transport	2
Rail transport	3	Level of services in tourism	4
Bus stations	2	Level of personnel training in transport	3
Road transport	2	Level of personnel training in tourism	3
Urban and suburban passenger transport	3	Degree of interaction between tourist and transport companies	3

To the question, "What short-term measures, in your opinion, can change the quality of tourism transport infrastructure in the regions?", most respondents were not able to answer. In their opinion, short-term measures are not able to fundamentally reverse the current situation and suspend the development of negative tendencies, and this despite the railway transport reform, transport industry management reform, the creation of strategies for the development of all types of transport and tourism. Despite the fact that many respondents noted the lack of qualified personnel, only 50% of the respondents are interested in cooperation with educational institutions that train specialists in Transport and Tourism.

The study leads to the conclusion that the existing scientific, methodological and practical approaches to management in the field of tourism and transport and long-term structural reforms carried out in the region in transport cannot be called sufficiently effective, contributing to the development of tourist transport infrastructure. Joint efforts of all participants of the tourist market, combined with effective management and implementation of specific measures in the short term should ensure the development of the country's tourist potential and have a beneficial effect on the economic and social sphere as a whole. However, this requires not only a new methodology of research, analysis and management of tourism transport infrastructure, but also an effective mechanism for its implementation.

The tourism transport infrastructure is a provider of transport and tourism services to consumers. Given the multidimensional nature of this complex subsystem, we can

highlight some of its unique properties, which should be considered when managing enterprises of the tourist system.

1. Multifunctionality. Elements of the tourism transport infrastructure provide transportation, accommodation, information, recreation, communication services and are part of tourist impressions.

2. Communicativeness. Communication between providers and consumers of transport and tourist transport services is most effectively carried out through the elements of tourism transport infrastructure.

3. Dynamism. Tourism is the most dynamic sector of the economy, therefore, its subsystems, including the tourism transport infrastructure, have a high degree of dynamism in the functioning and development.

4. Multifactority. The complex structure of tourism transport infrastructure and parent systems (tourism and transport) determine vulnerability of the tourism transport infrastructure to many factors of influence, both internal and external.

5. Injury risk. Safety issues in tourism and transport occupy one of the first places. Unfortunately, the issue of adequately informing tourists about threats to their life and health, which are a side effect of any trip, is still unresolved, such information is either completely absent or of a formal nature. The authors consider it necessary to warn tourists about possible dangers. The most accessible would be a warning on travel documents and in the territory of the tourism transport infrastructure, for example, this kind of warning: "Tourist trip is an event associated with increased danger. Consequences for life and health are possible". Tourist trips, as a rule, are

associated with a holiday, recreation, and in such situations consumers often lose their vigilance. Informing about potential threats to life and health during a tourist trip will keep the attention of tourists.

6. Inclusiveness. Tourist impression as the main value of any tourist trip consists of a large number of details. The enterprises of tourism transport infrastructure play a crucial role in the formation of the tourist impressions, because even with a minimal share of services provided by tourism transport infrastructure in the time and cost volume of the tourist trip, all tourist trips begin and end with interaction with them.

7. Adaptability. Tourism is a zone of elastic demand. Changing economic conditions force elements of tourism transport infrastructure to respond flexibly to changes.

The authors considered the object-system approach to management of tourism transport infrastructure. The object-system approach enables to consider each element of the tourism transport infrastructure subsystem as an important part of the tourist system.

As a management method, the object-system approach has all the necessary properties. Firstly, object-systemic management promotes a deeper investigation of the object of management, its internal and external environments, realizing the potential of the object, secondly, it strengthens goal-setting through the program of the subject of management, thirdly, it promotes more effective and successful functioning of the object of management, through the application of economic management methods. Thus, the application of object-system approach is aimed at enhancing goal-setting, more complete disclosure and use of the potential of the object of management and improving its efficiency.

The advantages of using the object-system approach for enterprises of the tourism transport infrastructure are as follows:

- increased profitability of core activities;
- an increase in profitability of additional activities (tourism, advertising, insurance, public catering, services);
- widening the range of services offered;
- expansion of a partner network (transport, tourist, insurance companies);
- enhancing customer satisfaction.

The benefits of using the object-system approach for consumers:

- a wide range of services in one setting;
- competitive pricing policy of enterprises;
- a brand new information and service space.

As a scientific method, the object-systems approach extends knowledge about the object of management, its structure, its external and internal environments (similar, but of different scale), the systems that ensure the functioning of the object as a whole and its separate links (controlling, managing, providing and serving), the laws, principles, rules

of management, by developing management the theory. The object-system approach, combining the main concepts and principles of scientific school, the systemic, design and marketing approaches, becomes a new way of management and a brand new approach.

Based on theoretical analysis, let us formulate the basic principles of the object-system approach:

- unlocking the potential of the object of management through the study of its structure (fixed and working capital, personnel, technology, designs, market, finance, service and maintenance);
- using the management mechanism, involving the subject, object, management functions, management methods, management principles, external environment, management program and management cycle of the object of management;
- use of economic methods of management (planning, economic calculation, pricing, credit and financial relations, wages, taxation, and market)
- building a model managing the object of management and modeling various management decisions.

The model of tourism transport infrastructure management on the example of the Imereti region is designed to address the following problems:

- improving transport services for tourists in the region;
- preserving the environment in the region as one of the tourist resources by optimizing and restraining traffic in specially protected areas;
- increasing profitability of transport enterprises through the organization of modern and demanded ways of transportation;
- an increase in payments to local budget by restricting activities of illegal private carriers;
- raising awareness among tourists, including transit tourists, of the opportunities of the region by placing information posters, racks, terminals on transport routes, facilities and in the means of transport.

In management of the tourism transport infrastructure and market analysis of transport services, it is necessary to actively use marketing tools. Firstly, it meets modern management requirements, secondly, it will enable to allocate limited transport and human resources in most effective way, and thirdly, it will accelerate the development of transport and tourist systems.

Based on the above, let us present the methodology of the object of management (OM) in graphical form.

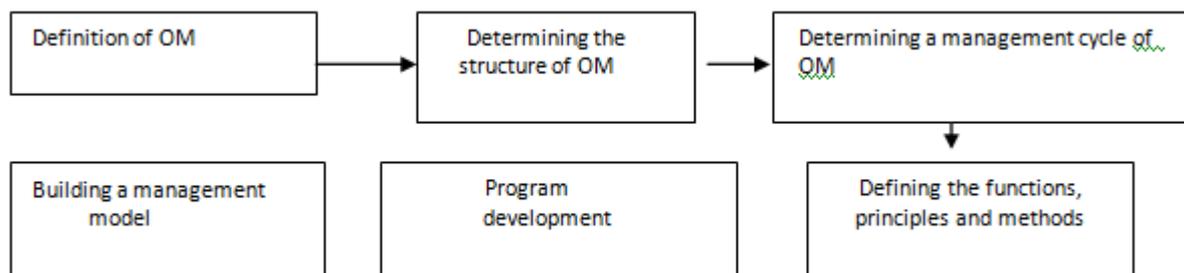


Fig. 1 – Methodology for managing elements of tourism transport infrastructure

The object-system approach is a method of management based on a clear understanding of the object of management, its potentials, the use of economic management methods, management program and management simulation model. This understanding of object-system management can help to address the following scientific and practical issues: a) recognition of object-system management as a necessary method of management; b) expansion of the use of object-system

approach by applying it in management of tourism transport infrastructure by transport and tourist enterprises.

A tourism transport infrastructure needs advanced development, which can serve as the most serious growth driver of the industry and the country's economy.

To implement the object-system approach, we recommend the following algorithm for the implementation of the new transport infrastructure management system for tourism (Table 2).

Table 2. An algorithm of introducing a new management system

1	Recognition of tourism transport infrastructure as an important part of the tourist system
2	Assessment of the importance of each of the objects of transport infrastructure for tourism development in the region
3	Incorporating plans for the strategic development of transport infrastructure for tourism into the overall tourism development strategy (coordination of strategic plans for the tourism and transport industries)
4	Formation of customer-oriented consciousness of the personnel of the tourism transport infrastructure facilities (creating a service space)
	Assessment of activities carried out. Adjustment of the program

3. conclusion

1. Despite all the variety of modern scientific and methodological approaches to management, those approaches that are used in management of tourism and transport today in the region, do not produce significant positive results. The experts estimate the situation with most elements of tourism transport infrastructure as critical and declare the need for radical changes in management of tourism and transport at the state level.
2. The following 7 unique properties of transport infrastructure of tourism have been identified: multifunctionality, communicativeness, dynamism, multifactority, injury risk, inclusiveness, and adaptability.
3. The tourism transport infrastructure can become a competitive advantage of the tourist area, and its development should be considered in the design and implementation of tourism development strategy of both the region and the country.
4. The regional development management model allows to assess the place and role of tourism transport infrastructure in the development of tourism and the regional economy and determine the consequences of certain management decisions.
5. Among the parameters of evaluation of effectiveness of the model of management of tourism transport infrastructure development, it is necessary to highlight: passenger traffic, tourist flow, carbon dioxide emissions,

tourism revenues, revenues from transport, employment, number of accidents and disasters, number of tourism and transport enterprises, volume of investments attracted to tourism and transport.

4. References

1. Pender L., Sharpley R. 2005. The Management of Tourism. London: SAGE publikations.
2. .Kotelnikova V.E. Tourism transport infrastructure // Transport world – M/: MIIT, 2012, Issue 4, pp. 118-123.
3. Gulyaev V.G. Tourism: economy and social development. – M.: Finance and Statistics, 2003.- 304 p.
4. Gulyaev V.G. Tourist traffic (documents, rules, logbooks, technology) - M.: Finance and Statistics, 1998.- 368 p.
5. Gulyaev V.G., Selivanov I.A. Tourism: economics, management, sustainable development. – M.: Soviet Sport, 2008. – 279 p.
6. Kuskov A.S. Transport service management / A.S. Kuskov, O.V. Ponukalina, T.N. Odintsova – Saratov, SSTU, 2003. – 89 p.
7. Stephen J. Page. 2009. Transport and tourism. Global perspectives. 3 rd edition, London: Pearson education Ltd.