

LOGISTICS OF PASSENGER TRANSPORTATION: FEATURES AND BASIC CONCEPTS

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ABSTRACT

Logistical approaches to organization of passenger transportation in Russia have taken practical shape quite recently. Basic terms of passenger logistics continue to be formed and still are interpreted differently. To ensure effective work in this area it is necessary to formulate common concepts and describe distinctive features of transportation, organized

on the basis of logistic principles. The article deals with concepts such as territorial mobility of population, mobility of passengers, logistics of passenger transportation, logistic chain of passenger movement, passenger transport system, multi-modal transportation in passenger traffic, intermodal transportation in passenger traffic.

Keywords: transport, passenger transportation, logistics system, concepts, terminals, analytical methods.

Background. Passenger transportation occupies a special place in socio-economic and cultural life of the Russian Federation, referring to the size of the country, natural and geographical, geo-economic and geopolitical conditions of its development. The level of transport system organization affects virtually all spheres of society, so distinguishing between economic and social functions, performed by it, is only conditional. However, the main task of public authorities remains the same: to ensure territorial mobility of population, its mobility in order to improve human well-being, access to the most remote areas, efficient use labor and natural resources by the country.

Objective. The objective of the authors is to analyze basic logistic concepts in relation to passenger transportation.

Methods. The authors use analysis, comparative method, general scientific methods.

Results.

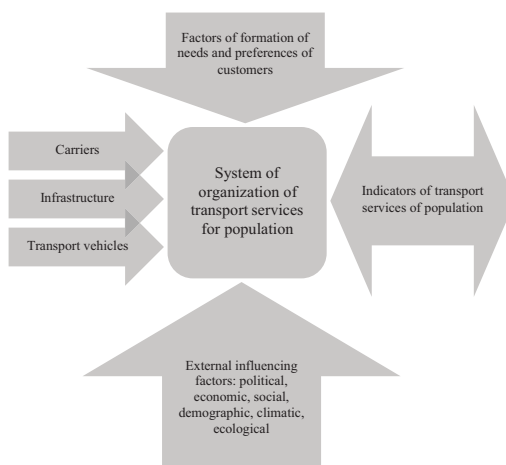
Territorial mobility of population is the intensity of movements, not related to change of residence (number of trips or passenger-kilometers per one inhabitant of the country (region) per year).

Mobility of a passenger implies a possibility of making a trip at a required time, selection of mode of movement (carrier, mode of transport), as well as confidence in his right to move along selected route and convenient schedule with an acceptable fare and desired range of services.

Some carriers and modes of transport cannot ensure a high degree of mobility of population, do not have sufficient qualitative system to meet transportation needs of «door to door» because of the specific accommodation of infrastructure, specifics of technological processes and operation of vehicles. Here it is affected also by the fact that transport system develops unevenly and often spontaneously under the influence of customer needs, logistical and investment opportunities of carriers, as well as a number of external factors (Pic. 1).

Reducing the time spent by a passenger in transit «from door to door» (including interchanges) is a major productive customer focus of transport and can only be achieved through the use of logistic approaches.

Logistics of passenger transportation is an integrated planning, management and monitoring of all passenger streams and servicing vehicles, logistics facilities and processes of transportation or transportation in transport systems, as well as information and financial flows related to them.



Pic. 1. Factor model of transport services.

Logistic chain of passenger movement is a transportation route «from door to door» with the use of transport vehicles to ensure rational time in transit and minimal costs for organization of passenger traffic.

Passenger acts as a logistician to his trips, while not having full information about capacity and carrying capacity of transport networks, their reliability and safety, rolling stock of different types of transport, timetables and routes, features of carriers' work and services they provide. Choosing a way of movement of a passenger is carried out by comparing three main factors: price, time, quality (Pic. 2).

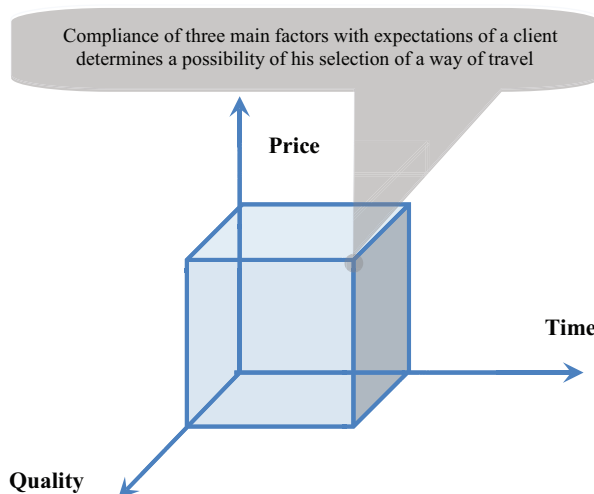
Passenger transport system is a part of overall transport system, a collection of objects of transport infrastructure, vehicles and transport processes required for transportation of passengers on a single area (metropolitan area, region, country, etc.).

Modality of transportation is a category that characterizes the variation of methods for performance of a process, their number.

Multimodal (intermodal) transport system is a collection of objects of transport infrastructure, vehicles and transport processes, providing multimodal passenger transportation in all logistic chains on a single area (metropolitan area, region, country, etc.).

Multimodal transportation in passenger traffic is passenger transportation (development of passenger stream or its individual segments) within a





Pic. 2. Main factors that determine the choice of trip mode by a passenger.

particular direction by vehicles of one or more carriers on the basis of logistic principles.

Intermodal transportation in passenger traffic is passenger transportation (development of passenger stream or its individual segments) within a particular direction by vehicles of one or more carriers on the basis of logistical principles using a single travel document and under the responsibility of one carrier.

The interpretation of these concepts considers that the main linking and organizing element in many multimodal (intermodal) transport systems is railway transport as the most reliable, safe, environmentally friendly mode and also with a large carrying capacity, and railway station complexes are converted into multifunctional transport interchange hubs, providing safe, comfortable and time-minimum interchange of passengers. To implement passenger multimodal (intermodal) transportation automated control systems are designed, a specialized dispatcher unit is created, procedure for allocation of responsibility and management of settlements between participants in the process is established.

Conclusions. The development of multi-modal transportation changes transport strategy on integrated service of passengers, especially when for a client the most important factor is time of movement, and he is ready to adequately pay for satisfaction of his needs in the best possible conditions.

Adaptation of logistics approaches and concepts of logistics in a changing market environment is designed to simplify and at the same time strengthen theoretical foundations of implemented strategic

programs. In the segment of passenger transportation, it may be considered, that such steps are also being made and have already been made.

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ВИЦЕ-ПРЕЗИДЕНТ ОАО «РЖД» АЛЕКСАНДР САЛТАНОВ: «ВЗАИМОДЕЙСТВИЕ СТРАН БРИКС ЭТО ОКНО НОВЫХ ВОЗМОЖНОСТЕЙ ДЛЯ РАЗВИТИЯ ЖЕЛЕЗНОДОРОЖНОГО ТРАНСПОРТА»

«БРИКС это окно новых возможностей для развития железнодорожного транспорта государств участников организации», заявил вице-президент ОАО «РЖД» Александр Салтанов в ходе Делового форума БРИКС, прошедшего в рамках Петербургского международного экономического форума.

Лидеры международных деловых кругов и государственные деятели обсудили текущее состояние и перспективы торговой деятельности и инвестиционного сотрудничества в рамках БРИКС.

По словам Александра Салтанова, функционирование в составе делового совета БРИКС блока, связанного с развитием инфраструктуры, позволит постепенно выходить на крупные совместные инфраструктурные проекты.

«Мы активно работаем с нашими коллегами в Китае, Бразилии, Индии и ЮАР. Надеемся, что в перспективе мы выйдем на конкретные проекты», отметил вице-президент ОАО «РЖД». Он также отметил, что сопряжение таких крупнейших проектов, как «Транс-Евразийский пояс RAZVITIE» и «Новый Шелко-

вый путь» позволит объединить значительную часть евроазиатской инфраструктуры и ускорить экономическое развитие государств, участвующих в их реализации.

«Костяк для такого взаимодействия уже есть — это международные транспортные коридоры, значительная часть которых проходит по российской территории. Сейчас крайне необходимо совместное развитие этих коридоров», сказал Александр Салтанов. Он добавил, что сегодня уже имеется опыт совместной отправки контейнерных поездов из Китая в Европу. Кроме того, при нормализации политической ситуации на Корейском полуострове в увязке с Транссибом может быть задействована Транс-корейская магистраль.

По словам Александра Салтанова, широкие возможности для сотрудничества открываются в Бразилии, где формируется амбициозная программа развития железнодорожного транспорта, а также в Индии.

(По сообщению пресс-службы ОАО «РЖД»
<http://press.rzd.ru/news/public/> ●

«COOPERATION BETWEEN BRICS COUNTRIES OPENS A WINDOW OF NEW OPPORTUNITIES FOR RAIL TRANSPORT DEVELOPMENT» SAYS VICE-PRESIDENT OF RUSSIAN RAILWAYS ALEXANDER SALTANOV

«BRICS opens a window of new opportunities for the development of railway transport for members of the BRICS group», said Alexander Saltanov, Vice-President of Russian Railways, who was speaking at the BRICS Business Forum held at the St. Petersburg International Economic Forum.

International business leaders and government officials discussed the current state of and prospects for trade activities and investment cooperation between the BRICS countries, which consist of Brazil, Russia, India, China and South Africa.

According to Alexander Saltanov, functioning as part of the Business Council of BRICS block associated with the development of infrastructure will gradually allow cooperation on large joint infrastructure projects.

«We are actively working with our colleagues in China, Brazil, India and South Africa. We hope that in the future we will move to specific projects», said the Vice-President of Russian Railways.

Saltanov also pointed out that a pair of such major projects as the Trans-Eurasian Belt Development and the

New Silk Road will integrate a considerable part of the Eurasian infrastructure and accelerate the economic development of the countries participating in their implementation.

«The basis for this cooperation already exists in the form of the International Transport Corridors (ITC). Much of this network passes through Russia. It is now extremely important that we undertake the joint development of these corridors», said Saltanov, adding that there was already a history of working together to dispatch container trains from China to Europe.

In addition, the normalisation of the political situation on the Korean Peninsula, in conjunction with the Trans-Siberian Railway, can bring the Trans-Korean Railway into play.

According to Saltanov, opportunities for cooperation will also open up in Brazil, where an ambitious programme for the development of railway transport is underway, as well as in India.

(JSC Russian Railways press service
<http://press.rzd.ru/news/public/> ●

