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EFFICIENCY IMPROVEMENT ON FUNCTIONING AND DEVELOPMENT OF PASSENGER MOTOR TRANSPORT SERVICES IN URBAN AGGLOMERATIONS

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ABSTRACT

This article reflects the features of the provision of passenger road transport services in urban areas. It also presents the distribution of traffic between different types of passenger transport, taking into account the level of motorization. The comparative indicators of the time spent by the population on a trip are given by types of passenger transports. The factors and signs of dividing the consumer market into segments of passenger traffic are identified. Moreover, the optimal time spent by the population on a trip for urban agglomerations is recommended. This study proposes an indicator for evaluating the effectiveness of the route.

1. INTRODUCTION

The general condition of the issue

Underdevelopment of the markets for passenger transportation services (PTS), especially in urban agglomerations (including resort ones), leads to the territorial social injustice of residents of peripheral and sleeping neighborhoods, which significantly affects the decline in quality of their life and residence in the urban environment [1]. Cities and agglomerations formed on their basis have recently become the most significant elements of the resettlement system in Russia. They provide the emergence of new growth points, economic coherence of the territories, and integrated development of transport and service infrastructure and serve to achieve the main goal, i.e. creating comfortable conditions for life and leisure of Russians [2].

City agglomeration is a combination of municipalities (settlements and urban districts) within whose territory a number of settlements are compactly located, mainly urban, united in a complex dynamically developing system with intensive transport, industrial, infrastructural, social and economic ties, with common use of adjacent territories and development resources [2, 3].

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There are two main types of agglomerations: mono-centric and polycentric. The largest number of existing and emerging mergers belong to the first type. Polycentric agglomerations are rather the exception, they unite several cities, each of which is an independent core and absorbs nearby settlements. Mono-centric agglomerations are formed according to the principle of the dominance of one main city. There is a core, which during growth includes other settlements in its territory and forms the direction of their further development in symbiosis with its potential. The largest urban agglomerations (the vast majority) are created precisely by monotype. An example is the Moscow agglomeration [3,4].

Agglomeration of the municipality of Krasnodar also belongs to the mono-centric type. The city of Krasnodar is characterized by the presence of all the conditions for the agglomeration of territories within its zone of influence. It is located on the most important highways connecting the center of Russia with the ports of the Black and Azov Seas, as well as the resorts of the Black Sea coast of the North Caucasus. The city has all types of transport: air, road, rail (four directions, three railway stations), water (transportation of goods by river-sea vessels). The economic situation of Krasnodar is determined by the concentration of human, investment, financial, intellectual and other resources. Krasnodar is a center of science and higher education: more than 80% of scientific workers in the region and about 90% of all students are concentrated in the city [5].

In the Krasnodar city agglomeration, in addition to the city of Krasnodar, they include partly Dinskoy, Krasnoarmeysky, and Seversky districts.

The area of agglomeration is 2200 km2. On the territory of the agglomeration, there are 60 settlements in which more than 1.1 million people live (according to the latest population census), and taking into account the estimated data of the Krasnodar administration - more than 1.4 million people.

The effective economic development of the Krasnodar agglomeration is impossible without creating favorable conditions for high-quality functioning of the markets for passenger road transport services (PRTS) in terms of a balance of benefits for all stakeholders (Customer - Carrier - Consumer) [6-9].

2. CHARACTERISTICS OF PASSENGER VEHICLES

Modern principles of management, associated with complete economic independence of economic organizations, self-government, self-financing, and self-development, have predetermined a marketing approach to the strategic management of business processes, designed to ensure effective management in a dynamically changing market environment. No exception is the scope of passenger vehicles. Passenger road transport is an integral part of the passenger transport system of regions and cities, is a major factor in the effective development of the economy, whose role is enhanced in the conditions of market relations. With the direct participation of passenger transport, markets for motor transport services are being formed.

In a market economy, the main task of transport becomes urgent - the acceleration of the turnover of material values on the terms of the complete satisfaction of transportation needs of the population, as it directly affects the economic interests of not only carriers but also consumers. According to the existing concepts, services include all types of labor that are not directly related to the change and transformation of forms of matter and natural phenomena and produce a special use value, which is expressed in the socially useful activity of labor itself in various sectors of the public economy. Services also include those types of labor that do not materialize in a substantively tangible, isolated product of labor (transport, communication).

Features of the provision of transport services are as follows [9]:

- Services cannot exist outside the process of their provision (i.e. they cannot be accumulated);

- Sale of services is, in fact, the sale of the labor process itself, therefore the quality of services is determined by the quality of the labor process itself;

- Services represent a specific use-value only at a certain time and in a specific place or direction, which significantly limits the possibility of their replacement in the market of services;

- Transport services are those which complete and (or) anticipate the process of material production.

Passenger transport services are a sub-activity of public transport, aimed at meeting the needs of people and characterized by the availability of the necessary technological, economic, informational, legal and resource support. Consequently, the transport service means not only the transportation of passengers but any operation that is not part of the transportation process but is associated with its preparation and implementation. Based on the analysis of domestic and foreign experience, transport services are classified:

- On the basis of relationship with the main activity of transport enterprises - for transportation (that is, including in one form or another element of transportation) and not transportation;

- By the type of consumer for whom the service is provided, - to external (provision to non-transport enterprises and organizations) and internal, i.e. provided to other enterprises and organizations of transport or other industries. For example, internal services are the provision of rolling stock by a transport company to carry out transportation on a regular and customized basis;

- By nature of the activity - technological, commercial, informational, legal, etc.

Other services include:

- Activities on planning, organizing and executing the delivery of passengers from places of residence to destinations and additional services for preparing for and after transportation;

- Registration of the necessary shipping documents;

- Conclusion of a contract for transportation with transport enterprises;

- The calculation for the carriage of passengers;

- Information Support;

- Insurance, financial and customs services using the best methods and methods, subject to the full satisfaction of the requirements of passengers and others.

3. MOTOR TRANSPORT SERVICES FOR PASSENGERS IN URBAN AGGLOMERATIONS

Motor transport services are defined as activities related to the process of moving passengers in space and time, the provision of transportation, storage, and transportation of baggage, as well as other additional services. Passenger transport services are carried out on various types of passenger transport services markets in urban agglomerations, which are characterized by different transportation potential, uneven development of transport infrastructure, as well as consumer demand.

At the suggestion of the authors, the PTS markets in urban agglomerations are proposed to be classified and characterized as [10, 11]:

1. A saturated market is a PTS market with a developed service and transport infrastructure, in which the probability of obtaining planned profit from passenger transportation is 0.90-0.99, which is caused by stable passenger traffic, greater transport mobility of the population, availability of transport services, regularity of traffic , greater density of the route network in the city districts, tariff setting, the possibility of choosing a ground type of passenger transport to move to the target, a higher level development of transport service, high population density, direct travel, more developed system of situational control centers for transportation processes, and higher motivational interest of business entities to the development of transport business due to the small payback period.

2. The developing (emerging) market is PTS, in which the probability of obtaining planned profit from passenger transportation is 0.61 ... 0.89, which is caused by less stable passenger traffic, lower density of the route network of villages, insufficient development of transport service, the need to make transplants on the periphery of the city, lower (in relation to urban) frequency of movement of rolling stock, lower density of population in relation to the saturated market PTS, higher transport fatigue due to the greater length of the route and time of correspondence to the object of the target.

3. The PTS market with limited growth potential is a market in which the probability of obtaining planned profit from passenger transportation is 0.31 ... 0.60, which is determined by the seasonal factor in the transport activity of the population, the limited development potential of the residential area, and as a result the route network , lower (in comparison with the developing market) frequency of rolling stock movement, low population density in relation to the developing market PTS, higher transport fatigue due to higher the length of the route and the time of correspondence to the target object, the low level of development of the transport service, the underdeveloped transport infrastructure, the lesser interest of business entities to the development of the transport business due to high unit production costs and longer payback periods.

The volume of motor transport services provided in various types of markets PTS depends to a large extent on the level of automobilization of urban agglomerations (with a different number of inhabitants), as well as the demand for street passenger public transport (SPPT), as well as express and individual transport. Table 1 shows their optimal values, which are recommended to be used in real agglomeration conditions (the authors' research data and Recommendations for the modernization of the urban transport system were used, according to MDS 30-2.2008, Central Research Institute of Urban Planning, RAACS, Moscow). The selected type of SPPT (Science, Pollution Prevention and Technology) directly affects the speed of the message and the time spent by passengers on movement to the target object in the urban agglomeration.

Table 2 reflects their actual and recommended values for the future, which are set on the basis of the conducted research in comparison with the standards reflected in the "Recommendations for the modernization of the urban transport system" MDS 30-2.2008, Central Research Institute of Urban Planning of the Russian Academy of Architecture and Construction Sciences, Moscow.

Table 1: Estimated distribution of passenger traffic between various types of passenger transport (in%, taking into account the level of motorization of the settlement)

Population with population, thous.	Level of motorization, auth. / Thousand people										
	100	150	300	450	200	300	500	200	400	600	900
	Street SPPT				High-speed SPPT			Individual transport			
up to 50	40	50	5	60	-	-	-	45	55	65	70
51-100	70	60	50	30	-	-	-	40	50	70	80
101-300	60	65	45	40	-	-	-	35	55	60	70
301-500	75	70	60	50	-	-	-	30	40	50	60
501-1000	70	60	50	40	10	15	20	30	35	40	45
1001-1500	70	60	50	40	15	20	25	25	30	35	40
1501-3000	60	65	55	40	15	20	30	20	25	30	35
Over 3000	65	50	40	35	30	35	40	20	20	25	30

Table 2: Comparative indicators of the time spent by passengers to move to the target with the use of public passenger transport (weighted average)

Types of public passenger transport to move in the urban agglomeration	Message speed km/h	Travel time 1 km, min.
1. Bus	18.2/20.0	3.34/3.31
2. Trolley bus	17.5/19.1	3.43/3.12
3. Tram	16.9/18.2	3.57/3.29
4. Bus and trolleybus on partially insulated lanes	19.5/20.1	3.08/2.98
5. Bus-espresso	23.5/26.0	2.55/2.98
6. Trolleybus and tram accelerated	22.0/24.5	2.72/2.41
7. Bus and trolleybus on a separate lane	25.0/27.0	2.40/2.21
8. High-speed tram on partially insulated canvas	25.5/27.5	2.35/2.17
9. High-speed bus and trolleybus on an isolated automatic control strip.	28.0/30.1	2.14/1.98
10. High-speed tram on an insulated canvas	31.0/34.0	1.93/1.74
11. Underground	41.6/-	1.44/-
12. Electrified railway	45.0/-	1.33/-
Note: in the numerator - the existing values; denominator - recommended values for the future.		

To study the transportation needs of the population, they conduct marketing research of passenger transport services markets on various grounds: purpose of travel, transport to move, range of travel, frequency of trips, type of activity, age, gender, average income of consumers, consumer attitudes to quality and other parameters of transportation service and related services kits. All these signs can be used to segment the markets for transport services.

A market segment is a part of a market that is allocated in some way and has a certain one or more similar characteristics. Signs - a way to select a segment. As one of the methods for identifying a segment, they use the methods of questioning passengers, processing statistical data on types of transport, cities, and subjects. Consumer segmentation makes it possible to determine the structure, capacity, sustainability, solvency of consumers, etc. Segmentation of transport service providers allows them to determine their resource capabilities in the required volumes, price of services, and how they will affect the development of passenger traffic and competitiveness in the transport market.

As a result, according to the results of passenger traffic survey, various types of SPPT messages reveal their structure, solvency of the population, as well as key components of a trip to working and non-working days: convenience of the timetable, time and distance of the trip, convenience of the route, fare comfort and technical equipment of rolling stock (air-conditioners, Internet) and potential solvency of discerning passengers, etc. Practical methods of market partitioning transfer service have varied. Most often they are divided into geographical, demographic and behavioral factors.

4. ORGANIZATIONAL ASPECTS IN ENSURING THE STANDARD TIME OF TRANSPORT SERVICES FOR THE POPULATION USING TRANSPORT INTERCHANGE HUBS

The interaction of various types of passenger transport is manifested primarily in the network and integrated transport interchange hubs (TPU), which are involved in shaping the structure of route communications of the SPPT and are a reasonable factor for a particular urban situation (network density, roadway width, etc.). The transport-planning and spatial organization of the TPU is determined not only by the number of interacting types of passenger transport, but also by the location of stations, stopping points, lines, tracks and other transport facilities, various devices and communication elements, as well as the location of the node on the urban agglomeration plan and its architectural -planned communication with adjacent buildings. The simplest TPU arise from the interaction of various types of street urban transport (approaching or crossing bus, trolleybus, and tram routes in different combinations). Complex TPU arise in the interaction of rail transport.

A complex indicator, reflecting the degree of compactness of the territory, the level of development of the road and transport network, is the time spent by the population to move from their place of residence to the place of destination. According to the research, the average time of population to move, on the example of the Krasnodar urban agglomeration, for the purpose of the trip "home-work" at peak hours is 60 minutes, which is at least 20 minutes, which exceeds the regulatory requirements reflected in the joint venture 42.13330.2016 – «Urban planning. Planning and development of urban and rural settlements».

The document states that only for workers who daily come to work in the city from other settlements, the time spent is allowed to increase no more than twice. MDS 30-2.2008 "Recommendations for the modernization of the transport system of cities" set even more stringent requirements for the allowable time spent on moving to the place of destination (Table 3). Compliance with the recommended time spent on the movement of the population (Table 3) suggests that the regular route SPPT network is customer-oriented and highly productive, although, in this case, with increased costs for high-quality transport services to the population, which are offset by a systematic increase in consumer demand.

Table 3: Recommended time costs for the population to move

City, agglomeration, thousand people	The time spent on movement to the place of work for 90% of workers, min	Time spent on car availability of the center, min
100	30	15

250	32	16
500	35	17
1000	40	20
3000	45	25
10000	50	30
15000	60	40

The higher requirements are placed on the level of quality of transport services for the population, the higher are the costs of its provision and, accordingly, the cost of transportation services.

Determine the size of the increase in costs (Δ3) required to reduce the time of passengers to move in the regulatory time (t_{fakt}), i.e. when moving to a higher level of transport service quality, it is proposed using the following developed formula [12]:

$$\Delta 3 = \frac{(3_{\max} - 3_{\min})\cdot(t_{fakt} - t_{norm})}{(t_{fakt} - t_{\min})} \quad (1),$$

where 3max, 3min – accordingly, the maximum and minimum costs necessary for the implementation of transport services for the population, rubles; t_{norm} – standard (reduced) time for movement of population, min.; t_{min} – minimum time for movement of population, min.

If on a regular route network of various types of rolling stock, for each of its type, you can determine the coefficient of increasing costs, $KVZ_{\Delta 3}$, for compliance with the standard correspondence time according to the following formula [12]:

$$KVZ_{\Delta 3} = \frac{3_{\max} - 3_{\min}}{t_{fakt} - t_{\min}} \quad (2).$$

The rolling stock that provides the minimum cost of compliance with the standard time for movement of population in urban agglomerations will be considered more efficient. And precisely, such rolling stock should be recommended for operation, as the most efficient and competitive.

Economic efficiency from the use of the proposed formulas (1) and (2) is determined primarily by the possibilities of reducing the time for the movement of passengers and reducing the costs of subjects of transportation activities for their transport services. This is achieved through the introduction of flexible transportation technologies (with different modes of transport services by the hour of the day and days of the week), providing a more rational use (redistribution) of buses on a regular route network, highlighting priority traffic on buses on the road network, improving driver skills, using dynamic qualities of buses with various modes of gear shifting, etc.

In large and largest cities with an increase in the distance of trips of the population to the target objects, incl. As a rule, transplantation is carried out to suburban areas, which affects the standard correspondence time, which can increase by 30% or more.

Therefore, in the initial stages of designing the route of the route, it is necessary to take into account such features. For example, research by the authors of the Krasnodar agglomeration, with a population of more than 1.3 million people, found that up to 25% the total time spent by the population on a trip accounted for a transfer from one type of transport to another, which is carried out in transport links nodes (TPU).

Network TPUs play an important role in the design of efficient routes, especially for regular public bus transport, and are also important infrastructure elements of the urban metropolitan transport system that determine its sustainable operation and development.

To assess the effectiveness of the designed route for regular public buses, it is proposed to use the following developed formula [13-18]:

$$K_э = \sqrt[9]{K_N \cdot K_U \cdot K_P \cdot K_S \cdot K_E \cdot K_B \cdot K_V \cdot K_M \cdot K_R} \to 1{,}00 \qquad (3),$$

where K_N – coefficient of efficiency of use of stopping points on the route. Defined as the ratio of actually used stopping points in the forward and reverse directions of the route (N_f) to the total (planned) number of stopping points on the route in the forward and reverse direction (N_o). The actually used stopping points in the forward and reverse the direction of the route is the number of stops with the actual passenger transfer (that is, without taking into account the zero-passenger exchange), where both the embarkation and the disembarkation of passengers take place.

K_U represents the efficiency ratio of the development of passenger traffic by the stated number of buses. It is defined as the ratio of the actual (based on survey materials) U_f to the planned U_{pl} number of passengers transported per shift (or the work time on the route of the bus (s)). If the capacity of buses on the route is used by passengers less than 25% per shift, then this route is closed and combined.

K_P is the ratio of the efficiency of transport work on the flight time, which is recommended to determine from $K_P = \sum_{к=1}^{m} \left[B_{Ai}^{n} \cdot \eta_{см} \cdot l_{cp}^{r} \cdot t_{p}^{н} \Big/ Q_{BA_i}^{f} \cdot l_{cp}^{f} \cdot t_{p}^{f} \right]$, where к – the number of flights made by all buses of the i-th type on the route, per shift; n, f – respectively nominal and actual values of indicators; Q_{BAi} – number of passengers carried by all buses of type i per flight; t^{H}_{p}, t^{f}_{p} – respectively, the standard (Table 3) and the actual (according to the results of the survey) the bus journey time on the route, min.; l^{f}_{cp}, l^{r}_{cp}, respectively, the actual and estimated average distance of the journey of passengers on the route, km.; B_{Ai} – average nominal capacity of buses passing the route, $B_{Ai} = \sum_{i=1}^{n} A_i \cdot m_i \Big/ N_{Ai}$ (A_i – the number of buses of the i-th type on the route, units; m_i – nominal capacity of buses of i-th type, pass.; N_{Ai} – total number of buses on the route, units.); $\eta_{см}$ – the turnover rate of passengers on a route per flight (determined by the ratio of the length of the route to the average distance of the journey of passengers or the number of passengers carried per flight to the nominal capacity of the bus).

K_S – coefficient of efficiency of use of the structure of the bus fleet by capacity. Defined as the ratio of the actual S_f to theoretical S_t (or regulatory, defined with reference to a group of cities) capacity of working buses on the route network. When using different types of rolling stock on the route network of the city (especially small, small, medium, large and very large capacity), the coefficient of efficiency of use of the bus fleet structure is defined as $K_S = \sum_{i=1}^{n} N_i^f \cdot m_i^f \Big/ \sum_{i=1}^{n} N_i^n \cdot m_i^n$, where N_i – the number of units of rolling stock of the i-th brand and type (f - actual; n - normative); m_i is the nominal capacity of buses of i-th brand and type.

K_E – coefficient of environmental safety operation of buses on the route network. It is defined as the ratio of actually working buses corresponding to a certain ecological class of Euro (based on survey materials) E_f to regulatory E_n environmental requirements for Euro 6 class. When calculating this ratio, in order not to add to the database the values of emission standards, I propose a scoring system: Euro 6 - 6 points, Euro 5 - 5 points, Euro 4 - 4 points, Euro 3 - 3 points , Euro 2 - 2 points, Euro 1 - 1 point, Euro 0 - 0.5 point (or zero?). Then the ratio will look like this: there are 15 buses on the route that meet the Euro 2 environmental standard, and Euro 5 is required, then this ratio is determined by the ratio 2/5 = 0.4. When using different types of rolling stock on the route network of the city (especially small, small, medium, large and very large capacity), with different environmental classes, the coefficient of environmental safety of bus operation is defined as:

$$K_E = \sum_{i=1}^{n} A_i^f \cdot K_б^f \Big/ A_o^n \cdot K_b^n ,$$

where A^f_i, A^n_o – respectively, the actual and total number of buses on the route network of the city, corresponding to the scoring; K^f_b, K^n_b – respectively, the actual and standard value of the scoring. For example, if out of 15 operating buses on the city's route network, 5 PS units meet Euro 6, 4 unit. PS meet Euro 5, 2 units. PS meet Euro 4, 3 units. PS meet Euro 3 and 1 unit. PS meets Euro 2, then the value of K_E corresponds to: K_E = (5*6+4*5=2*4+3*3+1*2) / 15*5 = 0, 92.

K_B – passenger safety factor is determined from the relationship: $K_B = 1 - \left(\sum_{j=1}^{k} A_j \cdot (P_1 + P_2 + P_3 + ... + P_n) \Big/ \sum_{i=1}^{n} A_i^o \right)$, where A_j – the number of rolling stock units operating on the route network of the city that committed road accidents: fatal, with severe injuries, moderate injuries, light injuries, luggage damage, etc.; A_i^o – the total (cumulative) number of i-type buses operating on the route network of the settlement; $P_1 ... P_n$ – accordingly, the number of accidents per year committed by the cumulative i-м type of buses on the route network of the village: fatal, with severe injuries, wounds of moderate severity, wounds of light severity, damage to baggage, etc.

K_V – the coefficient of interaction of passenger transport in the network and integrated transport hubs. Defined as the ratio of the actual arrival time T_f passenger transport (specific route) to the junction point (interaction of routes and types of passenger transport) to the standard (on schedule or with standard deviation from the schedule) arrival time T_n.

K_M – the duplication factor of the route by transportation technologies of adjacent routes of regular bus transport (no more than 70% of the route duplication is allowed). Determined by the ratio of the length of the coinciding leg of the route M_{Ls} to the total length of the route M_{Lo}.

K_R – coefficient of bus traffic on the route. Determined by the ratio of actually performed flights (including with violation of the schedule) R_f to the planned number of them on the route for the shift R_p.

The developed route efficiency indicator of the route allows a comprehensive approach to the formation of a regular route network in urban agglomerations, and to determine ways of its effective functioning and development with the stated level of quality of transport services to the population.

5. CONCLUSION

In urban agglomerations, quality of life of the local population and the comfortable stay of vacationers and tourists are closely related to the scope of public passenger transport services in general and automobile transport in particular, around which a certain infrastructure is created, marketing communications, financial and credit relations, and a certain format is formed transport technology services to consumers. The needs of the population in passenger transport services are related both to the production activities of the local population (trips to the place of work, business trips, etc.) and cultural and everyday necessities (tourist and sightseeing trips, trips to sanatoriums and boarding houses, rest houses, to the beach, etc.). Passenger motor transport is at the same time the most important component of the territorial structure of the economy and an integral part in the organization of cultural and economic relations, ensures the process of population movement for production and personal needs, unites distant cities and large metropolitan areas into a single complex, contributing to their sustainable social-economic development.

The efficiency of passenger transport also determines the level of quality and culture of transport services in accordance with modern requirements of consumer demand to their level of quality, taking into account the territorial and planning features of the development of urban agglomerations, taking into account the resource potential of transport operators. In market conditions of management, it is important to take into account the ratio of the cost of transporting passengers and ensuring the stated level of quality of transport services to the population. And with the annual growth of passenger cars in cities (agglomerations), which have a significant impact on the above ratio, more attention should be paid to improving the organization of transport services for the population, traffic, with special lanes for route vehicles to ensure the standard time of the population to travel to the target objects as well as the development of alternative types of passenger transportation.

6. CONCLUSION

A new classification of passenger transportation services markets in urban agglomerations is proposed: a saturated market, an emerging market, a market with limited growth potential. This classification of markets PTS takes into account the territorial segment and the dynamics of consumer demand, which have a significant impact on the efficiency of socio-economic development of urban agglomeration in general and determine the need to optimize the regular route network for public passenger transport in particular.

It was revealed that the volume of motor transport services provided in various types of markets for PATS depends to a large extent on the level of automobilization of urban agglomerations (with a different number of inhabitants), as well as the demand for street passenger public transport (PTOP), as well as high-speed and individual transport.

A formula has been developed that makes it possible to determine the size of the increase in costs required to reduce the time for passengers to move within the regulatory time frame, i.e. in the transition to a higher level of transport service quality. If different types of rolling stock are operating on a regular route network, then for each of its types it is possible to determine the coefficient of increase in costs for compliance with the standard correspondence time. The rolling stock that provides the minimum cost of compliance with the standard time for movement of population in urban agglomerations will be considered more efficient. And precisely, such rolling stock should be recommended for operation, as the most efficient and competitive.

An indicator has been developed to assess the effectiveness of the route, which allows a comprehensive approach to the formation of a regular route network for public passenger vehicles in urban agglomerations, and to determine ways of its effective functioning and development with the stated level of quality of public transport services.

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