## ASSESSMENT OF THE DEVELOPMENT LEVEL AND PROBLEMS OF PROVIDING THE SOCIAL TAXI SERVICE FOR PEOPLE WITH LIMITED MOBILITY IN THE RUSSIAN FEDERATION REGIONS

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ABSTRACT--Relevance of the research topic is determined by extremely limited study of functioning problems and "Social taxi" service development in the subjects of the Russian Federation, as well as full absence of research on this subject in the whole country. The aim of the study is to assess the development level of the Social Taxi service for low-mobility citizens in the regions of the Russian Federation, to substantiate problems that inhibit the development of this service in the Russian regions, as well as the justification of measures that can eliminate the identified problems or minimize them. When implementing the study, the authors of the article used the methods of quantitative and qualitative assessment, comparative and factor analysis, analysis and synthesis, grouping and comparison, while formulating conclusions based on the results of the study, the method of logical generalization. According to the results of complex analysis in each of the 85 subjects of the Russian Federation they assessed the condition services development in Russia on the basis of determining the percentage of citizens with limited mobility coverage by this service. The cost of the Social Taxi service in all constituent entities of the Russian Federation is analyzed. Data on the subjects of the Russian Federation with a high and minimum cost of services are summarized, measures are proposed for optimizing tariffs for the services of the Social Taxi. It is proposed that the development of the "Social Taxi" service should be given priority in the implementation of the state program "Accessible Environment", which will ensure the development provided by this service in all regions of Russia. The authors determined the necessity to attract private investors and socially oriented non-profit organizations to Social Taxi

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service. Article submissions can be of interest to regional and federal authorities involved in the development of regional social programs, as well as scientists and experts engaged in the study of this subject.

*Keywords--* service "Social Taxi", low mobility category of citizens, disabled peoples, quality of services, social services to the population, socially-oriented non-profit organizations.

### I. INTRODUCTION

The "Social Taxi" program is one of the most important types of services for the population belonging to the category of low mobility citizens in the Russian Federation. The main objective of this program is the provision of transportation services with limited mobility disabled and other categories of people with disabilities to move them to the socially significant objects. "Social taxi" program development is realized by the subjects of the Russian Federation, municipalities and entities under the provisions of the "Available environment" state program in the Russian Federation for 2011-2020, subprogram 1 "Ensuring accessibility conditions in the priority areas of life of persons with disabilities and other low mobile groups of population" (The state program of the Russian Federation "Accessible environment" for 2011-2020, 2015).

The relevance of this article is determined by the lack of published research by the scientific community, experts, specialists studying these services and the status of implementation and development of the Social Taxi service, assessing the level of development and problems of providing this service not only in individual constituent entities of the Russian Federation, but also on national level. There is also no scientific works devoted to assessing the quality of "Social taxi" service provided to disabled people living in remote and inaccessible rural settlements. At the same time, according to the statistics of the Federal State Statistics Service, 37.5 million people live there which is 26 % of the country's population and, accordingly, this means a significant share of disabled people, people with limited mobility (Federal State Statistics Service, 2018).

The basis for a deeper study on the service provision level of the Social Taxi program was an analysis of the scientific literature by Russian and foreign authors. The problems of providing transportation services to low-mobility groups of the population are widely studied throughout the world. Thus the publication by M.L. Gremers et al. (2006) discusses taxi route planning software, including attendants and people with disabilities. The data on the organization of the Access - A - Ride service in New York, which is an analogue of the Social Taxi service in Russia, presented in article by J Murray (2012), allowed the authors of the article to identify positive experience in providing this service in the USA and recommend it for implementation in the work of the Social Taxi service in the Russian Federation.

### II. METHODOLOGICAL FRAMEWORK

The methodological basis of this study was the work by domestic and foreign authors in the provision of services for people with limited mobility. The official statistics of Rosstat (1985 - 2019) served as the initial information for the analysis of the development level and problems of providing the Social Taxi service for low-income citizens in the regions of the Russian Federation.

In the process of conducting the research, methods of quantitative and qualitative assessment, comparative and factor analysis, analysis and synthesis, grouping and comparison were used, while formulating conclusions based on the results of the study, the method of logical generalization was used.

As a result of applying the method of Pareto analysis of each out of the number of the main factors that influence the organization of the service "Social taxi" highlighted the most important factors of influence. These include:

regulatory support development of "Social taxi" service;

 Priority of the Social Taxi program services for the administration of a Russian Federation subject, a municipal formation;

- the amount of funding for the service;

the affordability of the service for people with disabilities, other categories of citizens who are in need of service;

 categories of people with disabilities, other people with limited mobility who have the right to use the service, percentage of service users coverage.

The weight of each identified key factor affecting the quality of the Social Taxi service was carried out using the KPI (key performance indicators) system.

## III. RESULTS

# 3.1. Coverage Percentage Estimation of Extremely Needy People with Limited Mobility in the Social Taxi Service in the Constituent Entities of the Russian Federation

The first and main circumstance that determines the low level of Social Taxi service development in the whole country is that the creation of the service is not stipulated by any legislative and regulatory document. That is why the provision of transport services with limited mobility disabled people in need of assistance when moving to the socially important facilities in the form of "Social taxi" service is not required for the management of Russia regions. Meanwhile in the "Accessible Environment" state program has requirements for transport accessibility conditions for disabled people with limited mobility, so the organization in every region of the Russian "Social Taxi" service becomes an important perspective task for regional authorities.

In connection with the above, the service is introduced and developed at the initiative of the constituent entities of the Russian Federation and under the control of the Ministry of Labor and Social Protection of the Russian Federation. In other words, the availability and work organization level of the Social Taxi service largely depends on how prioritized the administration of the subject in the Russian Federation considers this issue to be - priority or secondary. The percentage of service coverage of people in need of I, II groups, disabled children, and other low-mobility categories of the population (veterans of the Great Patriotic War, members of large low-income families, elderly citizens - 75 years and older; unemployed orphans also depends on this factor) and children with the right to receive social benefits, etc.), and staffing, and the completeness of the service by road transport, and the affordable price of the service for users.

The most important indicator characterizing the development level of the Social Taxi service in the regions is the percentage of service coverage for people with limited mobility in need of this service. The results

of conducted analysis revealed that Republic of Kalmykia occupies a leading place in Russia for the coverage percentage of the service in need of this service, limited mobility of persons with disabilities and other categories of citizens - 168.85%, i.e. to everyone who had the right to use this service, it was provided on average 1.7 times . The leader of the country on this indicator is Chukotka Autonomic District - the value of the index is 148.75%. At the same time, such constituent entities of the Russian Federation as the Republic of Dagestan, the Republic of Mordovia are identified by the authors as the entities with the lowest percentages of coverage for this service (0.022% and 0.063%, respectively).

## 3.2. The Main Reasons for the Low Coverage Percentage is Extremely Limited Mobility Categories of Citizens in Need of ''Social taxi'' Service in Particular Regions of the Russian Federation

In justifying the reasons for the low values of the coverage percentage indicator for very low mobile groups of citizens in need of "Social taxi" services in certain regions of the Russian Federation the low level of regional budgets in the aforementioned regions can be particularly noted. So the lowest indicator for the Republic of Dagestan is to some extent justified by a significant budget deficit of funds. Thus, according to the assessment by head of the department of state economy regulation of the Institute of Social Sciences in Russian Academy of National Economy and Public Administration named after V. Klimanov (2017), Dagestan was planned to allocate the greatest grants from state budget for the financial equalization of budget opportunities of the republic - 59 million rubles in 2018.

However, the Republic of Kalmykia is a leader in coverage of low mobile groups of citizens in need of "Social Taxi" service, that according to experts of the Agency "RIA RATING" enters the top three Russian regions with the lowest level of life quality (In terms of quality of life in Russia, Moscow, St. Petersburg and Moscow Region are leading, 2016), but this has not prevented the region to take a leading position in the country by the above-mentioned important indicator of coverage with limited mobility in need of "Social taxi" service.

Thus, the authors did not reveal a direct correlation between the regional budget proportions and the provision of limited mobility service "Social taxi". Much more important is whether, according to the leadership of the region, this service is a priority, or not.

According to the authors solving this problem at the national level is possible with the help of federal significance normative document adoption, for example, Government decree of Russian Federation, which should set the priority role of the "Social taxi" service in subprogramme 1 from "Accessible Environment" state program with responsibility for subjects administration in the Russian Federation for the "Social taxi" service development in the region and to ensure the required level of service quality of this program on the basis of systematic monitoring of the service effectiveness. At the same time it is important to involve all activities that maximize the coverage percentage of the disabled I, II groups, children with disabilities by the service into "Accessible Environment" regional program.

#### 3.3. Areas of Activity to Improve the Financing of the Social Taxi Service

The development level of "Social taxi" service for disabled citizens in the regions of the Russian Federation, as stated above, depends on the funding level for service delivery activities. The authors (Moskaleva et al.,

2018a) consider the co-financing and the provision of services from the budget of the regions and the federal budget as one of the ways to solve the problem of funding this service.

Another effective way to solve the problem of financing "Social taxi" service could be to attract private businesses to perform services on the basis of mechanism that involves public-private partnerships with municipal-private partnership (MPP), implemented in accordance with the Federal Law (2015) of July 13, 2015 No. 224-FL. Productive experience of using such a mechanism for "Social taxi" service development is already available in a number of regions . Thus, in the Republics of Kalmykia in need of the service the citizens are served by the individual entrepreneur Hulhachieva Olga Yurievna ("Social taxi" Katyusha), which uses 50 vehicles. The service is provided to disabled people of I, II, III groups (including disabled children), Veterans of the Great Patriotic War, Veterans of Labor, pensioners in the amount of 40525 services per year. At the same time, all disabled people of the republic, numbering 24 000, are served like in no other region of the country.

Another effective mechanism for using the funds allocated to the Social Taxi service, according to the authors, is to attract socially-oriented non-profit organizations. The order of interaction between these organizations and state (municipal) structures, priority areas of activity in the provision of publicly useful services, principles of financial support for their work are legally determined by the Federal Law (2013) of the Russian Federation of January 28, 2013 No. 442-FL "On the Basics of Social Services for Citizens of the Russian Federation" as well as the Presidential Decree of August 8, 2016  $N_{2}$  398" on approval of the priority activities in the provision of public utility services", other law dative-regulations (Decree of the Government of the Russian Federation, 2016b).

The analysis conducted by the authors, showed that involvement in the provision of "Social taxi" services socially oriented non-profit organizations can significantly improve the quality of services as compared to using only public transport social services or municipal subordination. This is achieved due to the fact that private organizations are interested in long-term contracts with the state (municipal) social structure, so they have to constantly maintain a high level of service in the provision of services (Rostovskaya, Petrova & Shimanovskaya, 2017; Mayorova, 2018). Another positive aspect in cooperation with the social-oriented nonprofit organizations is a slight decrease in the budget of the RF subject of costs (municipality) in the work of the "Social taxi" service through the implementation of federal government financial support mechanisms. For example, financial support for socially oriented non-profit organizations is carried out from the presidential program of grants to assist nonprofit organizations working in the small towns and villages. State support for socially oriented nonprofit organizations (primarily financial) is also provided by the "Social Support for Citizens" state program in the Russian Federation (Decree of the Government of the Russian Federation, 2014), including subprogram 4 "Improving the effectiveness of state support for socially oriented non-profit organizations". In addition, the Strategy for the Development of Small and Medium Enterprises until 2030 (Decree of the Government of the Russian Federation, 2016a), along with general measures to support small businesses, also provides mechanisms to support social entrepreneurship and social business.

#### 3.4. Affordability Level Assessment of the Social Taxi Service

Conducted analysis on pricing policy to establish the cost of the "Social taxi" services for all subjects in the Russian Federation has shown a different approach to setting the prices for the program service. Of course, due to different budgetary provision in the regions, municipalities, the pricing level for the service varies greatly. In addition, the problem is complicated by the difference in climatic conditions in the region, the condition and roads, and the different sizes of the territory of the subject in the Russian Federation. The number and quantity of remote, isolated rural settlements is also different in the Russian regions. Of course, the maximum price affordability is possible if the service is provided free of charge or at a price quite acceptable to the consumer.

In the process of analyzing data provided by the departments of labor and social protection of the regions by the Ministry of Labor and Social Development, the authors of the article found that in 15 regions of the Russian Federation the service is provided absolutely free, in another 14 regions the transportation of customers in cars of the "Social taxi" service is also free, but with all sorts of restrictions. In 27 constituent entities of the Russian Federation (excluding constituent entities of the Russian Federation, in which the service costs to one degree or another for free ), the service is provided at reasonable prices. Regions in which the service is provided free of charge are selectively presented in Figure 1.

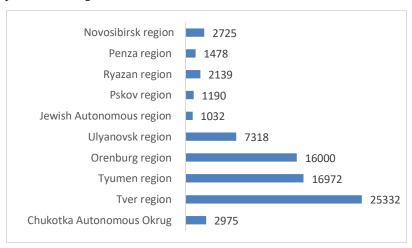


Figure 1: Ten of the 15 constituent entities of the Russian Federation in which the Social Taxi service is provided free of charge without any reservations or restrictions

However, as a result of this research it was identified 12 subjects in Russian Federation where the service cost to the user is expensive. Some of these regions are presented in Table 1.

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Name of the		Note
subject of		
the Russian		
Federation		

Table 1: Subjects of the Russian Federation with a high cost of the Social Taxi service

Astrakhan	Once a month, the service is	Due to the high cost of services, an average
region	provided for free, then - 313	of 350 people are served per year, while the
C	rubles per hour, which is	number of people with disabilities
	expensive for the user, since	in Groups I and II (including children with
	the trip includes waiting,	disabilities) who are in extreme need of the
	which in a medical	service is about 30,000 (thus the percentage
	organization, social	of coverage for this category of people with
	protection institution and	disabilities is just over 1% )
	other socially significant	
	objects can be long	
Vologda	The service in the cities of	Due to the high cost, the coverage percentage
Region	Vologda, Cherepovets	of people with disabilities
	costs 300 rubles to people	of groups I and II (including children with
	with limited mobility per	disabilities) is 6.5%. That is, out of more than
	hour, which is extremely	66 thousand people with disabilities who are
	large; in the region, the cost	in need of service, an average of 4319 people
	of the service is 19	is served during the year (with 29 cars
	rubles. for every kilometer	available). The service is provided to people
	of the trip, which is also not	with disabilities, children with disabilities,
	cheap	citizens with a violation of the
		musculoskeletal system
Tomsk	For wheelchair users, a trip	Most people with limited mobility, who are
region	in a special vehicle	in extreme need of the service, use the
	equipped for loading and	service for free, while wheelchair users have
	unloading wheelchairs with	to pay (about 250 people). This constituent
	a patient, the cost of the	entity of the Russian Federation needs to pay
	service is 240 rubles per	attention to the fact that the percentage of
	hour trip, which is not cheap	service coverage of the established category
		of disabled people is only 6% (according to
		the region, an average of 2144 people are
		served per year, out of almost 36,000 who
		need the service, established by the
		settlement and expert method)

Considering that according to the rating (In terms of quality of life in Russia, Moscow, St. Petersburg and Moscow Region are leading, 2016)), none of the regions listed in Table 2 is among the ten regions with the lowest living standards, the high cost of the Social Taxi service serves as an indicator that the affordability of services is not a priority management area as well.

## IV. DISCUSSION AND CONCLUSION

Earlier, certain issues of the provision of transport services to low-mobility groups in the Russian Federation were studied by some Russian scientists. The data in the publication D.A. Korableva and N.M. Polevaya (2013) basically contain general concepts that describe the essence of the Social Taxi service itself. An analysis of some aspects of the Social Taxi service work in certain regions is in the works by A.D. Bavelsky (2010), E.E. Moon (2010), I.B. Akhunova and G.A. Hook (2017), E.V. Zlotnikova et al. (2017).

The authors of the article have also repeatedly studied the issues of providing the Social Taxi service throughout Russia (Moskaleva et al., 2018a; Moskaleva et al., 2018b).

At the same time, there was no comprehensive study of the level of development and problems of providing the Social Taxi service for low-income citizens in the regions of the Russian Federation in each of the 85 constituent entities of the country.

This study represents a definite step in the development of science-based approaches to understanding the problems in the development of the Social Taxi service in the regions of the Russian Federation, as well as the substantiation of the main work areas to eliminate or minimize these problems by improving the regulatory and financial support for this type of activity.

Summing up the study on the Social Taxi service development in all regions of the Russian Federation without exception, we can draw the following conclusions about the priority areas of activity necessary to eliminate problems in organizing the provision of this service in the Russian regions:

Firstly, it is necessary to establish the legal and regulatory priority role of "Social taxi" service in the subprogram 1 of "Accessible Environment" state program thus ensuring the need for the introduction and development of this service in all regions of the country.

Secondly, a uniform composition of the preferential citizens category should be introduced for all regions to whom the service should be provided only free of charge without any restrictions and reservations. For the privileged category of citizens the service should be provided free of charge, regardless of the place of service user residence.

Thirdly, it is necessary to establish a single maximum cost of a service throughout the country that is provided to citizens who are not included in the preferential category, for example:disabled people with a 3rd disability group, but experiencing difficulties in independent movement;persons awarded the titles of the Hero, other honorary titles;poor citizens and citizens who are in a difficult situation.

Fourth, to solve the problems of financing and to improve the quality of the Social Taxi service it is recommended that socially-oriented non-profit organizations should be involved on the basis of various forms of economic and organizational interaction between state and municipal bodies and private business.

The implementation of this set of measures will ensure the sustainable development and provision improvement of the Social Taxi service throughout Russia.

The materials of this study can be used in the development of social programs for the regions in the Russian Federation, as well as in the study of methodological and practical aspects of the Social Taxi service provision in the Russian Federation regions.

## REFERENCES

- 1. Akhunova, I.B. & Hook, G.A. (2017). Formation of a socially adaptive transport infrastructure for people with disabilities in the Republic of Adygea. Bulletin of transport information, 4(262), 3-6.
- Bavelsky, A.D. (2010). Accessibility of transport. Social taxi as one of the solutions. Motor transport company, 9, 21-22
- 3. Decree of the Government of the Russian Federation. (2016a). Decree of the Government of the Russian Federation of 02.06.2016 N 1083-r (as amended on 03/30/2018) "On approval of the Strategy for the development of small and medium-sized enterprises in the Russian Federation for the period until 2030".
- Decree of the Government of the Russian Federation. (2014). Decree of the Government of the Russian Federation of 15.04.2014 N 296 "On approval of the state program of the Russian Federation "Social support of citizens".
- Decree of the Government of the Russian Federation. (2016b). Decree of the President of the Russian Federation of August 8, 2016 No. 398 "On approval of priority areas of activity in the provision of publicly useful services".
- Federal Law. (2015). Federal Law of July 13, 2015 No. 224-FL On Public-Private Partnerships, Municipal-Private Partnerships in the Russian Federation and Amendments to Certain Legislative Acts of the Russian Federation.
- Federal Law. (2013). Federal Law of the Russian Federation of December 28, 2013 N 442-Φ3 "On the Basics of Social Services for Citizens of the Russian Federation".
- 8. Federal State Statistics Service. (2018). URL: https://www.gks.ru/
- Gremers, M.L., Klein, A.G., Haneveld, W.K. & Van der Vlerk, M.N. (2006). A Two stage Model for a Day – ahead Paratransit Planning Problem. Elektronic Notes in Discrete Mathematics, 25, 35-36.
- 10. In terms of quality of life in Russia, Moscow, St. Petersburg and Moscow Region are leading (2016)
  URL: https://aif.ru/society/po\_kachestvu\_zhizni\_v\_rossii\_lidiruyut\_moskva\_sankt-peterburg\_i\_podmoskove
- 11. Klimanov, V. (2017). What regions does the state treasury spend the most on? URL: https://aif.ru/dontknows/actual/na\_kakie\_regiony\_goskazna\_tratit\_bolshe\_vsego
- Korableva, D.A. & Polevaya, N.M. (2013). Social Taxi transport service as a measure of social support for persons with disabilities. Collection: The main paradigms of modern socio-humanitarian knowledge. Materials of the correspondence interregional scientific-practical conference, pp. 192 - 196. Blagoveshchensk: Amur State University Publishing House.
- Mayorova, E. (2018). Assessing the Corporate Social Responsibility of Retailers for Compliance with Consumer Expectations. Proceedings of the 32nd International Business Information Management Association Conference, IBIMA 2018, ISBN: 978-0-9998551-1-9, November 15-16, 2018, Seville, Spain, 1899-1904.
- 14. Moon, E.E. (2010). "Social taxi" is a necessary form of passenger transport services. Motor transport company, 11, 17-20.
- Moskaleva, N.B., Zaitseva, N.A., Larionova, A.A., Kurkina, N.R., Novikov, A.I. & Povorina, E.V. (2018a). Assessment of problems and ways to ensure transport accessibility of low-mobility population groups (for example, the "social taxi" service). Espacios, 39(1), 14-21.

- Moskaleva, N.B., Zaitseva, N.A., Vinogradova, M.V., Larionova, A.A., Kuljamina, O.S., Dashkova, E.V. & Popovich, A.E. (2018b). The use of digital technologies to improve the quality of the "social taxi" services. Modern Journal of Language Teaching Methods, 8(5), 41-53.
- Murray, J. (2012). A sistem analysis of Access-A-Ride, New York Citys paratransit servis. Journal of Transport and Health, 6, 177 – 186
- Rostovskaya, T.K., Petrova, T.E. & Shimanovskaya, Y.V. (2017). On providing phased access to socially oriented non-profit organizations operating in the social sphere to budget funds. Economics and management: problems, solutions, 3, 137-148.
- 19. The state program of the Russian Federation "Accessible environment" for 2011-2020. (2015). URL: https://aif.ru/society/po\_kachestvu\_zhizni\_v\_rossii\_lidiruyut\_moskva\_sankt-peterburg\_i\_podmoskove
- 20. Zlotnikova, E.V., Ladenko, P.A., Lyabakh, A.Yu. & Melkov, S.A. (2017). Analysis of the implementation of the Accessible Environment program in the city of Khimki, Moscow Region: Problems and ways to minimize them. State regulation of public relations, 2(20), 42-43