ORIGINAL ARTICLE
DOI: https://doi.org/10.30932/1992-3252-2021-19-5-6

World of Transport and Transportation, 2021,
Vol. 19, Iss. 5 (96), pp. 178–184

The Impact of the Transport Industry on the Economic and Technological Capacity of the Territories

Natalia V. GUSKINA

Natalia V. Guskina
Russian University of Transport, Moscow, Russia.
✉ *n.guskina@yandex.ru.*

ABSTRACT

The activities of economic entities operating in a specific territory depends to the highest degree on the action of transport factors comprising the existing economic links and resource provision of those territories. At the same time, it is necessary to highlight a special role of the economic and technological capacity in sustenance of the territorial economy. The economic and technological capacity is an indicator of its material basis as well as of the success of development of the material and innovative base of a particular territory.

At the same time there exists a certain cognitive gap in understanding the impact of transport infrastructure on the potential of the territory that makes relevant the continuation of the research to theoretically understand that impact.

The objective of this work is to theoretically substantiate the influence of the transport industry on the activities of economic entities of the territories considering the economic and technological capacity of a territory.

The integrated approach and empirical and theoretical method used in the work have allowed to conduct the research based on aggregated characteristics of transport industry and open statistical data and to describe the impact there-of on the economic and technological capacity of a territory.

To achieve comparable results within the framework of the single national economic and transport system that helps to level the influence of country's specific features, the analysis referred to the main indices of the activity of territorial districts of the Russian Federation including rates of development of the transport system, general dynamics of the changes in the length of routes and roads and the role of investment in the activity of the transport industry.

Results and prospects of the activity of the transport industry were determined regarding territorial interactions of economic entities.

The suggested approach to the analysis of the relationship between economic and technological capacity of the territories and transport systems is offered as a basis for further research since being sufficiently universal and once further developed and adapted to relevant conditions it can be decomposed or scaled up regarding study of smaller territorial entities or, on the contrary, of selected countries.

Keywords: transport, economic and technological capacity, territories, innovations, business entities, cargo turnover, investments, technologies.

For citation: Guskina, N. V. The Impact of the Transport Industry on the Economic and Technological Capacity of the Territories. World of Transport and Transportation, 2021, Vol. 19, Iss. 5 (96), pp. 178–184. DOI: https://doi.org/10.30932/1992-3252-2021-19-5-6.

The text of the article originally written in Russian is published in the first part of the issue.
Текст статьи на русском языке публикуется в первой части данного выпуска.

INTRODUCTION

Regardless multitude of publications[1] and highly elaborated issues of regional[2], territorial[3], urban[4] development comprising its social, economic [1], scientific and technological[5], and transportation aspects, scientific sources miss single approach to definition of the essential of the nature of economic and technological capacity of the territory and of its interrelationship with transport industry.

In a global sense, a definition of economic and technological capacity or potential of a territory can be formulated as a complex ability to attract obvious and latent resources to supply entities and population of the territory to increase productivity focused on obtaining utilities that correspond to the current demand. Consequently, if «the scale of the economic and technological potential is determined through the volume and quality of the resources available to the economic entity, as well as through its ability to use them effectively» [2], then in case of a territory it is worth saying about the volume, quality, and efficiency of the use of resources by the totality of economic entities.

In his earlier work, the author clarified the elementary nature of the economic and technological potential, which «is characterised not only by resource opportunities, but also by spatial identity, population density and quality of life of the population, remoteness from large cities, positioning within financial and economic segment, transport links, and the production and industrial level in the territory» [3].

But when carrying out further theoretical research, it became necessary to consider all the elements of the economic and technological capacity with reference to the territorial heterogeneity and geographical distribution of the resources, system of transportation links, and other problems related to those complex factors.

The *objective* of the presented individual study is to theoretically substantiate the influence of the transport industry on the activities of economic entities of the territories considering the economic and technological capacity of a territory.

The study used *integrated approach* and *empirical and theoretical method* that allow to conduct the research based on aggregated characteristics of transport industry and open statistical data and to describe the impact there-of on the economic and technological capacity of a territory. To level heterogeneity of social and economic conditions, the subjects of the study were associated with federal districts, federal entities of the Russian Federation, transport system of the Russian Federation and transport systems of federal entities of the Russian Federation.

RESULTS

Key Economic Performance Indicators of Federal Districts of the Russian Federation

The topographic differentiation of the Russian Federation determines the mixed nature of economic space, which entails the problem of sustainable development of the economic and technological capacity of the territories and fragmentation of the magnitude of all indicators of progressiveness of an agglomeration in relation to another one.

According to the data of the Federal State Statistics Service, such fragmentation can be observed from the aggregate index of industrial production between the constituent federal entities of the Russian Federation by types of economic activity, taken in aggregate (Table 1).

The dynamics of the industrial production index is rather scattered and the gap between some federal districts in January 2021 reached more than 10 %. The upward trend in indicators during the same time lapse in the Central Federal District in 2021 relative to indicators in 2019 was of 8,9 %. At the same time, there was a general

[1] The examples quoted below are singled-out out of immense mass of scientific and research papers, projects and reports only to illustrate multifaceted nature of existing approaches.

[2] A selection of ENPI CBCMED Projects. People cooperating across borders. Mediterranean Stories, 2014. [Electronic resource]: http://www.enpicbcmed.eu/sites/default/files/mediterranean_stories_economic_growth_and_territorial_devlopment_0.pdf. Last accessed 27.03.2021.

[3] Iammarino, S., Rodríguez-Pose, A., Storper, M. Why Regional Development matters for Europe's Economic Future. Working Papers, A series of short papers on regional research and indicators produced by the Directorate-General for Regional and Urban PolicyWP 07/2017. European Union, 2017. [Electronic resource]: https://ec.europa.eu/regional_policy/sources/docgener/work/201707_regional_development_matters.pdf. Last accessed 27.03.2021.

[4] Investment for jobs and growth. Promoting development and good governance in EU regions and cities. Sixth report on economic, social and territorial cohesion. European Commission, 2014. [Electronic resource]: https://ec.europa.eu/regional_policy/sources/docoffic/official/reports/cohesion6/6cr_en.pdf. Last accessed 27.03.2021.

[5] KIT – Knowledge, Innovation, Territory. [Electronic resource]: https://www.espon.eu/kit. Last accessed 27.03.2021.

Table 1

Industrial production index referring to the corresponding month of 2019, %*

	2019	2020	to January 2019	2021	to January 2019
	January	January		January	
Russian Federation	102,7	101,2	-1,5	98,1	-4,6
Central Federal District	100,4	106,1	+5,7	109,3	+8,9
North-Western Federal District	103,3	101,4	-1,9	99,5	-3,8
Southern Federal District	103,8	100,8	-3	103,3	-0,5
Privolzhsky Federal District	100,7	101,0	+0,3	100,1	-0,6
Ural Federal District	108,1	103,4	-4,7	97,6	-10,5
Siberian Federal District	104,8	95,8	-9	97,9	-6,9
Far Eastern Federal District	97,9	102,0	+4,1	95,4	-2,5

* Industrial production index. Federal State Statistics Service. [Electronic resource]: https://rosstat.gov.ru/enterprise_industrial?print=1. Last accessed 27.03.2021.

decline during the same time lapse in the rest of the federal districts, that resulted in a negative impact on the overall result for the Russian Federation in January 2021 by 4,6 % less than in 2019.

It is necessary to make an important reservation since the results of 2021 were not typical as compared to 2019 due to the general impact of pandemic situation, which was characteristic of all world countries, and were used to demonstrate only the differences in dynamics of industrial production indices of federal districts.

So, «the volume of GDP of Russia in 2020, according to first estimations, attained 106 606,6 billion roubles at current prices. The index of GDP in physical figures was of 96,9 % as compared to 2019. GDP price deflator index in 2020 was of 100,7 % as compared to 2019 prices»[6].

It is necessary to note that decrease in GDP as compared to 2019 was expected due to reduced world demand on energy resources and introduction of restrictive measures following pandemics.

The possibility of maintaining stability of advanced positioning of the Central Federal District in this system of indicators can be explained through the fact that it is a focus point of cooperation and of introduction of innovative technologies, which, of course, implies both economic benefits and certain risks. However, it is in it that federal district that «the production of goods and services is concentrated to a greater extent, pulling together the financial and labour resources of the other territories. These processes are becoming more and more stable» [4], that leads to a decrease in development opportunities of individual federal districts and in the effective use of their resources.

Impact of the Transport System on the Connectivity of the Territories and Implementation of the Economic and Technological Potential

Ensuring sustainable development of territorial entities is the central point of the modern policy of the Russian Federation.

The central role is played by connectivity among country's territories, which «can be ensured through modernisation of the country's transport system» [5]. In doing so, the most «widespread method of analysing the impact of infrastructure on economic dynamics is the apparatus of production functions, with the help of which it is possible to directly measure the return on output from infrastructure capital» [6], which leads to the need for constant analysis of the activities of the transport industry, as well as for updating of the restructuring of transport infrastructure, aimed at maintaining functioning of economic entities.

The process of production and consumption of transportation products is inseparable in time and space and requires the introduction of innovations, which in turn exist due to financial and intellectual investments. The economic and technological potential of a territory in this context is the result of the interrelation of the productive forces of economic entities and transport companies.

Each business entity seeks to extract «the maximum economic benefit, expressed in profit by providing a high-quality product at competitive prices» [7]. At the same time, significant place belongs to the transport infrastructure and its

[6] On the production and use of gross domestic product (GDP), 2020. Federal State Statistics Service [Electronic resource]: https://gks.ru/bgd/free/B04_03/IssWWW.exe/Stg/d02/18.htm. Last accessed 30.03.2021.

influence on all the processes of balanced development of the economic and technological potential of a territory since it guarantees fundamental conditions for the successful functioning of an economic entity.

The totality of factors comprising material and technical basis, natural and financial resources, and investments, state support, demographic structure, and the possibility of attracting an active part of the population to the economic activities of the territory refer to the economic potential. One of the indicators for assessing the economic potential of the territory is GDP since it covers not only the general indicators of the activity of an economic entity, but also the features of the sectoral and territorial structure.

The most definite indicators of the economic potential of a territory are reflected by the gross regional product (GRP) per unit area.

«More than half (52,1 %) of the total GRP, according to the estimate for the federal constituent entities of the Russian Federation, in 2020 will be formed by 10 constituent entities of the Russian Federation, namely, Moscow and St. Petersburg, Moscow and Sverdlovsk regions, Khanty-Mansiysk Autonomous District – Yugra, Yamalo-Nenets Autonomous District, Krasnodar and Krasnoyarsk regions, the Republics of Tatarstan and Bashkortostan»[7].

According to the forecasts of the Ministry of Economic Development of the Russian Federation, the share of the above economic entities in the total volume of GRP will increase by 0,2 % by 2023.

It should be noted that the indicator of gross regional product accounts only for the activities of territorial economic entities, which entails a difference in the values of expenditures determined at the federal level.

Transport Unity of Territories as an Integrator of Economic Growth

The peculiarity of interaction in assessment of transport products, in cases where production is in a territory, and consumption is in another one, can be determined by the state of the transport infrastructure since it forms a foundation of a single economic space.

Since the Russian Federation has a vast territory, then transport availability, «characterises development of the transport infrastructure of land modes of transport and can be determined both for each mode of transport and for the transport system of the region as a whole» [8].

One of the most evident transport factors reflecting development of transport infrastructure is the length of roads, railways, waterways, and pipelines, which clearly shows improvement of the transport system, as well as the provision of the country with transportation.

The length of roads, railways, waterways and pipelines at the end of 2019, according to the Federal State Statistics Service, is shown in Table 2.

The shown statistical data include the length of streets, railway sections located outside the Russian Federation and the main oil product pipelines in the territories of foreign countries.

It should be noted that the negative dynamics of the length of oil pipelines is associated with force majeure circumstances, such as the end of the reserve of resources on the territory and high depreciation of equipment, since the main pipeline fund was built over 20 years ago. It is to be noted that the pipeline network is wearing out, and its replacement requires large capital investments.

The dynamics of the length of inland waterways is associated with the hydrological situation, and. even though the indicator is negative, it is within the normal range.

The positive dynamics of the length and operation of all transportation ways indicates the effectiveness of strategic reforms and decisions taken by the state.

The efficiency of transportation affects the positive savings in the working capital on the territory of the country, which leads to strengthening of economic ties between its federal districts and «confirms the importance of the transport sector in the context of economic and social development» [9].

It is possible to objectively reflect the activities and interdependence of economic entities within the total area of the Russian Federation using statistical data on cargo turnover by mode of transport (Table 3).

The comparative dynamics of 2015 through 2019 shows that the overall level of cargo turnover by modes of transport has increased, this is characterised by an increase in the distance of transportation, an improvement in the quality

[7] Forecast of the socio-economic development of the Russian Federation for 2021 and for the planning period of 2022 and 2023. Web-site www.consultant.ru. [Electronic resource]: http://www.consultant.ru/document/cons_doc_LAW_363743/. Last accessed 30.03.2021.

Table 2

Length of roads, railways, waterways and pipelines in the Russian Federation by the end of 2019, thousand km*

	2015	2016	2017	2018	2019	change in indicator 2019 to 2015, +/-
Operating length of public railways	86,3	86,4	86,5	86,6	87,0	+0,7
Length of public motor roads	1 480,5	1 498,5	1 507,8	1 531,6	1 542,2	+61,7
Length of gas pipelines	177,7	179,3	179,8	179,3	181,8	+4,1
Length of oil pipelines	54,8	54,2	53,4	53,4	53,4	-1,4
Length of oil product pipelines	19,3	16,6	17,3	17,1	16,8	-2,5
Length of inland waterways	101,7	101,5	101,5	101,5	101,6	-0,1

* Length of roads, railways, waterways and pipelines in the Russian Federation, Federal State Statistics Service. [Electronic resource]: https://rosstat.gov.ru/folder/23455?print=1. Last accessed 07.04.2021.

of roads, and an increased demand for goods. Consequently, improvement of the internal transport infrastructure provides an opportunity to reduce the cost of supplying goods even to the most remote points of the country. Commissioning of new equipment, optimisation of current routes helps to achieve the highest results. The new material and technical base affiliates (or changes affiliation thanks to modernisation) an enterprise to a certain industry and is the most significant part of the assets. Therefore, another key element is the technological potential of the territories, which characterises development, including technology.

Investments in the Transport Infrastructure of the Territories

In the context of the spatial heterogeneity of the territories of the Russian Federation, the prospects for development of most economic entities depend on the access to various resources and infrastructures. On the one hand, the presence of the classical supply-demand system for business entities should have a positive effect, «on the other hand, the transport infrastructure can have an economic effect only if certain requirements are met: investment, government support and the presence of an institutional environment» [10].

Technological innovations streamline and update the industrial sector, as well as increase the opportunities for progressive activities of territories, neutralising, if optimal infrastructural and market conditions are met, risks of ineffective use of resources due to remoteness from monocentric agglomerations. Therefore, the technological capacity of a territory depends on formation of stable chains of interaction between market entities, as well as on the forms and types of production. «With an intensive type of economy, the volume of goods produced increases due to improvement of the use of resources based on scientific and technological progress, the use of more efficient means of labour, advanced technologies and forms of organisation of production» [11].

For the most part, the country's strong economy is based on production of high-tech products.

According to the Global Innovation Index, the Russian Federation in 2020 ranked 47th in terms of the competitiveness of innovative development among other countries[8], and 45th in 2021[9]. This indicator for the country is not paradoxical since for example, in 2019 and 2018, the country was ranked 46th. In comparison with countries that have taken advanced positions, the main problem of the Russian Federation might be associated with lower investment and innovation activity, in connection with which it is worth clarifying that one of the key indicators of development of new technologies in any country is the amount of investment in development and implementation of innovations.

Innovation developments in transport sector has a multidimensional significance for implementation of economic and technological capacity of a territory, for development of transport as of a national high-tech sector, for development of ability of transport to ensure better connectivity of territories and, consequently, better implementation of their potential capacity [8–11].

[8] [Electronic resource]: https://www.wipo.int/edocs/pubdocs/en/wipo_pub_gii_2020-intro4.pdf. Last accessed 01.09.2021.

[9] [Electronic resource]: https://www.wipo.int/edocs/ pubdocs/en/wipo_pub_gii_2021.pdf. Last accessed 21.09.2021.

Table 3

Cargo turnover by modes of transport, bln t•km*

	2015	2016	2017	2018	2019	Indicator change 2019 to 2015, +/-
Transport, total	5 108	5 198	5 488	5 636	5 674	+566
including:						
railways	2 306	2 344	2 493	2598	2602	+296
road	247	248	255	259	275	+28
pipeline	2 444	2 489	2 615	2668	2686	+242
including:						
gas pipeline	1 176	1 181	1 300	1336	1318	+142
oil pipeline	1 226	1 262	1 265	1276	1318	+92
oil products pipeline	42	46	50	55	51	+9
sea	42	43	50	37	37	-5
inland water	64	67	67	66	66	+2
air	5,6	6,6	7,9	7,8	7,4	+1,8

* Cargo turnover by modes of transport. Federal State Statistics Service. [Electronic resource]: https://rosstat.gov.ru/folder/23455?print=1. Last accessed 06.04.2021.

Consequently, investment in development of a territorial entity «determines the long-term dynamics of its economic capacity and the level of development of the social sphere, in this regard, it should be planned, analysed and regulated within the framework of state and regional investment policy based on the developed strategy for investment development of transport infrastructure» [8].

It should be noted that «current trends give reason to expect the early emergence of the first fully automated public transport system on a city scale» [12]. This confirms the fact that innovations in transport infrastructure raise the level of quality of transport services and optimise the activities of economic entities since «the current stage of technological development of the region affects certain types of production of goods, for example: raw materials, intermediate products, final consumption goods, services, etc.» [13].

Transport infrastructure innovations are aimed at optimal integration of transport with the economy of a territorial entity and allow economic entities to develop. But it is the ability of «economic entities to increase and strengthen their production, which gives them the opportunity to achieve sustainable competitiveness in the market of transport services» [14].

CONCLUSIONS

Thus, the economic system of a particular territory is a complex of industrial sectors, the level of development of which streamlines the activity of economic entities which leads to the implementation of opportunities for economic growth of the territory and sustainable operation of economic entities located in it.

«In general, the nature of development of transport infrastructure and its functional features are largely determined based on the specific features of a particular region, as well as on the degree of interaction and relationship with such infrastructural elements as engineering and social infrastructure, IT infrastructure and others» [15].

Accordingly, the analysis of indicators characterising the influence of the transport complex becomes a constant for formation of strong economic ties between territorial entities.

The aggregate potential of the territories of a country, which is evidently shown by the example of Russia, is defined as a complex qualitative-quantitative possibility of availability of all types of resources accumulated in a single territory, as well as the ability of an economic entity of the territory to use these resources for the most effective achievement of the tasks set for a specific period.

The degree of development of intra-territorial transport infrastructure, as well as of national transport system, providing for optimal connectivity of the territories, contributes to their effective inclusion into transportation and logistics chains of production and commercialisation of goods and services, and finally to implementation of their economic and technological capacity.

The suggested concept and theoretical approach can be further implemented through creating integrated methodology for assessing cross-influence of transport, economic and

technological factors within the described general model.

REFERENCES

1. Trofimova, N., Mamleeva, E., Sazykina, M., Shiryaeva, G. Territory production potential. SHS Web of Conferences, Vol. 94, 2021. Sustainable Development of Regions 2020 – XVI International Scientific and Practical Conference «State. Politics. Society». DOI: https://doi.org/10.1051/shsconf/20219401016.

2. Shkurina, L. V., Maskaeva, E. A., Sertakova, E. N. Problems of assessing the economic and technological potential of a transport company providing passenger transportation in suburban traffic [*Problemy otsenki ekonomiko-tekhnologicheskogo potentsiala transportnoi kompanii pri realizatsii perevozok passazhirov v prigorodnom soobshchenii*]. *Nauka i tekhnika transporta*, 2015, Iss. 4, pp. 62–64. [Electronic resource]: https://elibrary.ru/item.asp?id=25081913. Last accessed 01.09.2021.

3. Guskina, N. V. Theoretical foundations of the structure of the economic and technological potential of territories [*Teoreticheskie osnovy struktury ekonomiko-tekhnologicheskogo potentsiala territorii*]. *Strategic development of socio-economic systems in the region: an innovative approach: materials of VI international scientific and practical conference: collection of articles and abstracts*, *Vladimir, 03 June 2020*. Vladimir, Publishing and printing company «Transit-IKS», 2020, pp. 125–129. [Electronic resource]: https://elibrary.ru/item.asp?id=42986868. Last accessed 01.09.2021.

4. Uskova, T. V. On the development potential of Russian territories [*O potentsiale razvitiya territorii*]. *Problemy razvitiya territorii*, 2018, Iss. 5 (97), pp. 7–17. DOI: 10.15838/ptd.2018.5.97.1.

5. Shkurina, L. V., Guskina, N. V. Trends of the transport complex influencing the development of the economic potential of the territories of Russia [*Trendy transportngo kompleksa, vliyayushchie na razvitie ekonomicheskogo potentsiala territorii Rossii*]. *Trends in economic development of the transport complex of Russia: foresight, forecasts and strategies: Collection of scientific papers of the national scientific-practical conference, Moscow, March 18, 2020.* Russian University of Transport. Moscow, Infra-M, 2020, pp. 253–257. ISBN 978-5-16-016798-5. [Electronic resource]: https://elibrary.ru/item.asp?id=45814088&selid=45814201. Last accessed 01.09.2021.

6. Isaev, A. G. Transport infrastructure and economic growth: spatial effects [*Transportnaya infrastruktura i ekonomicheskiy rost: prostranstvennie effekty*]. *Prostranstvennaya ekonomika*, 2015, Iss. 3, pp. 57–73. DOI: 10.14530/se.2015.3.057-073.

7. Pavlova, A. N., Shkurina, L. V. Cost planning within the framework of optimising the cost base of a transport company in a competitive environment [*Planirovanie zatrat v ramkakh optimizatsii raskhodnoi bazy transportnoi kompanii v konkurentnoi srede*]. *Current state, problems and prospects for development of industry science: Proceedings of the All-Russian conference with international participation, Moscow, November 20–23, 2019.* Ed. by T. V. Shepitko. Moscow, Publishing house «Pero», 2020, pp. 170–171. [Electronic resource]: https://elibrary.ru/item.asp?id=42959007. Last accessed 01.09.2021.

8. Shkurina, L. V., Voblova, T. V., Beryakov, S. N. Theoretical and methodological foundations of financing the transport infrastructure of the regions [*Teoretiko-metodologicheskie osnovy finansirovaniya transportnoi infrastruktury regionov*]. *Ekonomika i predprinimatelstvo*, 2019, Iss. 2 (103), pp. 381–383. [Electronic resource]: https://elibrary.ru/item.asp?id=37238704. Last accessed 01.09.2021.

9. Vukic, L., Mikulić, D., Keček, D. The Impact of Transportation on the Croatian Economy: The Input–Output Approach. *Economies*, 2021, Vol. 9, Iss. 7, 16 p. DOI: https://doi.org/10.3390/economies9010007.

10. Okechukwu, E., Madonsela, N. S., Adedotun, A. The Effect of Transportation Infrastructure on Economic Development. Conference: Proceedings of the 2nd African International Conference on Industrial Engineering and Operations Management Harare, Zimbabwe, December 7–10, 2020. [Electronic resource]: https://www.researchgate.net/publication/349476934_The_Effect_of_Transportation_Infrastructure_on_Economic_Development. Last accessed 06.10.2021.

11. Gulin, K. A., Mazilov, E. A., Kuzmin, I. V., Alferyev, D. A., Ermolov, A. P. Scientific and technological potential of territories and its comparative assessment [*Nauchno-tekhnologicheskiy potentsial territorii i ego sravnitelnaya otsenka*]. *Problemy razvitiya territorii*, 2017, Iss. 1 (87), pp. 8–24. [Electronic resource]: https://findpatent.ru/magazine/024/245263.html. Last accessed 01.09.2021.

12. Dudakov, D. S. Innovative development of public transport systems in the context of interaction with the urban environment [*Innovatsionnoe razvitie sistem obshchestvennogo transporta v kontekste vzaimodeistviya s gorodskoi sredoi*]. *Arkhitektura i sovremennie informatsionnie tekhnologii*, 2018, Iss. 1 (42), pp. 287–304. [Electronic resource]: https://marhi.ru/AMIT/2018/1kvart18/PDF/21_dudakov.pdf. Last accessed 01.09.2021.

13. Gorbunov, A. A. Regional dimension of transport infrastructure development policy: foreign and domestic experience [*Regionalnoe izmerenie politiki razvitiya transportnoi infrastruktury: zarubezhniy i otechestvenniy opyt*]. *Sotsialno-gumanitarnie znaniya*, 2018, Iss. 1, pp. 136–145. [Electronic resource]: https://cyberleninka.ru/article/n/regionalnoe-izmerenie-politiki-razvitiya-transportnoy-infrastruktury-zarubezhnyy-i-otechestvennyy-opyt/pdf. Last accessed 01.09.2021.

14. Guskina, N. V. Problems of transport services in the activities of business entities [*Problemy transportnykh uslug v deyatelnosti jhozyaistvuyushchikh sub'ektov*]. *Trends in the economic development of the transport complex of Russia: foresight, forecasts and strategies, Moscow, April 21, 2020.* Institute of Economics and Finance of the Russian University of Transport (MIIT). Moscow, 2021, pp. 81–84.

15. Platonov, A. A. Factors of formation of the transport infrastructure of the region [*Faktory formirovaniya transportnoi infrastruktury regiona*]. *Education. Transport. Innovation. Construction: Collection of papers of II National Scientific and Practical Conference, Omsk, April 18–19, 2019*. Omsk, Siberian State Automobile-Road University (SibADI), 2019, pp. 236–241. [Electronic resource]: https://elibrary.ru/item.asp?id=38256833. Last accessed 01.09.2021. ●

Information about the author:

Guskina, Natalia V., *Ph.D. student at the Department of Transport Economics, Finance and Management of Russian University of Transport, Moscow, Russia, n.guskina@yandex.ru.*

Article received 21.04.2021, updated 30.09.2021, approved 14.10.2021, accepted 20.10.2021.