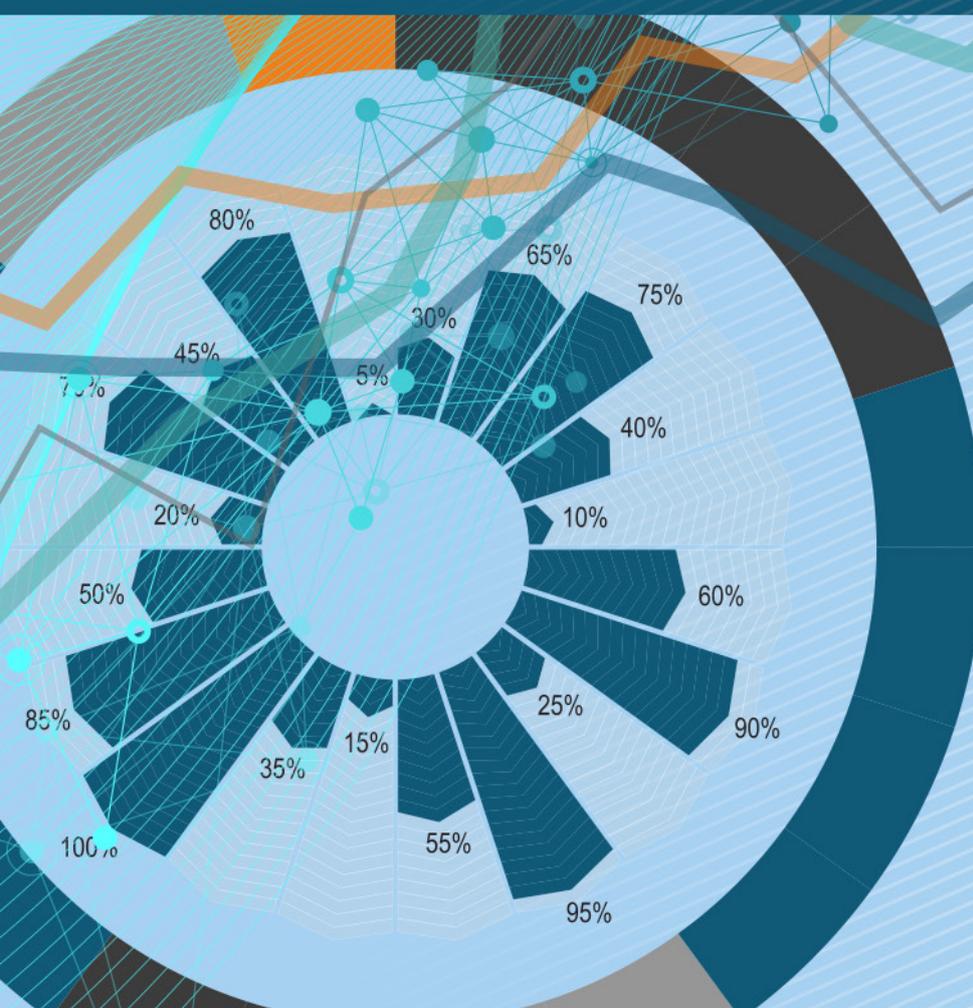


ISSN 2782-1927

# JOURNAL OF REGIONAL AND INTERNATIONAL COMPETITIVENESS



ISSUE  
(03)  
**4**  
2021

# JOURNAL OF REGIONAL AND INTERNATIONAL COMPETITIVENESS

Scientific and practical peer-reviewed journal

**Journal of regional and international competitiveness** — theoretical and practical journal dedicated to the issues of international and regional competitiveness.

The **mission** of the journal is to spread modern economic knowledge, publish the most interesting results of scientific research in the field of regional and international competitiveness, and to serve as a helpful forum for professional discussion of a broad spectrum of fundamental problems of socio-economic development, an important tool of communication among science, education, and business.

**The Journal accepts for publication:** original articles; translations of published articles from foreign journals (with the consent of the right holder for the translation and publication); reviews; essays; reports.

## BOARD OF THE JOURNAL:

**Chief Editor: Svetlana N. Rastvortseva**, Doctor of Economics, Professor (HSE), Moscow

**Deputy Chief Editor: Sergei V. Shkiotov** Candidate of Economic Sciences, Associate Professor (YSTU), Yaroslavl

**Scientific consultant: Valeriy A. Gordeev**, Doctor of Economics, Professor (YSTU), Yaroslavl

**Scientific consultant: Galina A. Rodina**, Doctor of Economics, Professor (YSTU), Yaroslavl

**Executive editor: Maksim I. Markin** (YSTU), Yaroslavl

## EDITORIAL BOARD:

**Valery F. Baynev**, Doctor of Economics, Professor (Belarusian State University), Minsk, Republic of Belarus

**Mikhail I. Voykov**, Doctor of Economics, Professor (Institute of Economics RAS), Moscow

**Ladislav Žák**, Candidate of Economic Sciences, INSOL Europe, Prague, Czech Republic

**Aleksey N. Zharov**, Doctor of Physical and Mathematical Sciences, Associate Professor (YSTU), Yaroslavl

**Anna A. Chub**, Doctor of Economics, Associate Professor (Financial University under the Government of the Russian Federation), Moscow

**Bella G. Shelegeda**, Doctor of Economics, Professor (Donetsk Academy of Management and Public Administration), Donetsk, Ukraine

**Tamara N. Yudina**, Doctor of Economics, SNS, Associate Professor (Moscow State University), Moscow

**Konstantin V. Kharchenko**, Candidate of Sociology, Associate Professor, Leader Researcher (Federal Center of Theoretical and Applied Sociology under the Russian Academy of Sciences), Moscow

**Maria S. Starikova**, Doctor of Economics, Associate Professor (Belgorod State Technological University named after V.G. Shoukhov), Belgorod

**TRANSLATOR:** L.A. Tyukina

**DESIGN:** M.I. Markin

**ISSN** 2782-1927

**Regulator:** Registered by the Federal Service for Supervision in the Sphere of Telecom, Information Technologies and Mass Communication (ROSKOMNADZOR).  
Date of registration: 31.12.2020. Registration certificate ЭЛ № ФС 77 - 80072

**Publication Frequency:** 4 issues per year

**Language:** English

**Founder and Publisher:** Yaroslavl State Technical University, 150023, Russia, Yaroslavl, Moskovsky prospect, 88

**Website:** <http://www.jraic.com>

**Postal address:** 150023, Russia, Yaroslavl, Moskovsky prospect, 88

**E-mail:** [jraic@edu.ystu.ru](mailto:jraic@edu.ystu.ru)

**Phone:** +7 (4852) 44-02-11

**Date of issue:** 25.09.2021



## Contents

### DEFINING COMPETITIVENESS

- Competitive attitude in the system of the basic framework of the general theory of competition ..... 4  
*Urak Zh. Aliev*
- A utility approach to assessing the competitiveness of socio-economic systems ..... 9  
*Valery F. Bainev*
- Restructuring of natural monopolies as a factor of increasing the competitiveness of the national economy..... 15  
*Rustem M. Nureev*

### COMPETITIVENESS IN THE EMPIRICAL RESEARCH

- Analysis of strategic issues and prospects for the implementation of federal projects of the subprogramme "information state" of the state programme "Information society" ..... 23  
*Alexey V. Tebekin*

### REGIONAL COMPETITIVENESS

- The role of the Moscow agglomeration in the socio-economic development of central Russian regions..... 43  
*Alla B. Berendeeva, Olga O. Korobova*
- Internet services market: assessment of the level of competition and competitiveness of the main providers ..... 57  
*Margarita I. Berkovich, Mursal I. Ismailov, Nikita Zhegalov*
- The role of development institutions in enhancing regional competitiveness ..... 70  
*Elena G. Patrusheva, Anna V. Rajhlina*

### INDUSTRY COMPETITIVENESS

- Strategizing the music industry: trends, principles and priorities..... 79  
*Anna S. Khvorostyanaya, Gevorg N. Tevanyan*

# COMPETITIVE ATTITUDE IN THE SYSTEM OF THE BASIC FRAMEWORK OF THE GENERAL THEORY OF COMPETITION

Urak Zh. Aliev

«Turan-Astana» University, Kazakhstan

E-mail: aliyevu@mail.ru

---

**Abstract.** In the translated international and Russian literature, there is an ambiguity of key definitions within the definition framework of competitive relations. Many of them are far from meaningful accuracy of definition. In this regard, the proposed paper makes an attempt to systematize the conceptual and categorical structure of the general theory of competition and gives the author's definitions of each of its constituent concepts, as well as the «cellular» structure of a separate competitive economic relations.

**Keywords:** competition, competitiveness, competitive power, competitive will, competitive quality, competitive attitude(s), competitive environment, competitive advantage, competitive factor, innovative competitive factor, structure of competitive economic relationship.

**JEL codes:** B41

**For citation:** Aliev, U. Z. (2021). Competitive attitude in the system of the basic framework of the general theory of competition. *Journal of regional and international competitiveness*, 4(3), 4-8. Retrieved from <http://jraic.com/index.php/tor/article/view/53>

**DOI:** 10.52957/27821927\_2021\_3\_4

---

## Introduction

«Competitive attitude» as a concept is a noumenon, but as a reality it is a phenomenon. As a phenomenon, «competitive attitude(s)» is inherent in the biological, social, and scientific worlds (if only in interpreting the nature, structure, and function of «competition» as a basic component of competitive attitude). Hence, a separate «competitive attitude» (competition), despite the presence of a huge number of studies of competitive relations, requires a scrupulous conceptual and categorical analysis in order to reach its own «cellular» structure, which is the basis for the deployment later on the whole system of competitive relations as an immanent attribute of market economic relations in general.

So, the basic conceptual and categorical structure of the general theory of competition, was considered by us in previously published works in the study of problems of industrial-innovative development of Kazakhstan (Aliev & Shimshikov, 2013). In this case, however, it is reproduced in the context of the structure of a separate competitive economic relationship. Let us start with a few references. In the Subject Index of Michael Porter's well-known book, *Competition*, only 20 concepts and expressions are given, including the basic concept of competition. At the same time, not all of these concepts have received the appropriate definition (Porter, 2008). The Subject Index of Russian economist Rubin's monograph «Competition: Orderly Interaction in Professional Business» contains 198 concepts and expressions including the basic term «competition» and does not clearly define many basic and derived concepts and phrases related to competition theory (Rubin, 2008).

It is known that one of the ways to define a concept is «... to reveal its content, i.e., to specify its essential features. ...In this case, at first, the defined concept is brought under a wider concept – a genus (usually the nearest genus is indicated), then the signs distinguishing defined concepts from other concepts which also belong to the same nearest genus are indicated» (Bor, 1998). Let us see to what extent the definitions of competition contained in economic dictionaries, encyclopedias, and legal documents correspond to these recommendations.

As it is fairly noted by Gordeev, V.A. (Gordeev, 2008), among the modern economic dictionaries and encyclopedias, the most detailed definition of competition is given in the Economic Encyclopedia of the IE RAS (Abalkin, 1999). It states that the etymology of the Russian word «konkurentsiya» (which means «competition» and etymologically similar to «concurrence») goes back to the Latin «concurrentia» – to collide, and this word has two lexical meanings: 1) confrontation, competition between producers of goods and services for the opportunity to increase profit; 2) the existence in the market of a multitude of producers (sellers) and buyers and the possibility of their free entry into and exit from the market. However, note that the second meaning is «inspired» by neoclassical theory, widely considered by modern economics textbooks. In our opinion, this meaning of «competition» contradicts the imperfect competition, which is defined further in the encyclopedia (Abalkin, 1999). But the first meaning correlates with the concept of «competition» in other modern economic dictionaries and encyclopedias (Prokhorov, 1972). It also corresponds to the definition given back in 1973 in the Great Soviet Encyclopedia, except for the adjective «antagonistic». The antagonism, however, has not entirely disappeared from today's dictionaries. For example, L.I. Lopatnikov's definition (Lopatnikov, 1996) states that market participants strive for their goals (first of all, to sell goods with maximum profit or to buy goods with minimum costs) to the detriment of others, also striving for similar goals; that is, in a sense, market participants pursue mutually exclusive goals. The Big Economic Dictionary, edited by Azrilyan, A.N., gives a detailed description of predatory competition besides the definition of unfair competition (such definition is contained in the Economic Encyclopedia of the IE RAS). However, a number of publications cite «antagonistic» signs of competition (Azrilyan, 1996). For example, B.A. Raizberg and L.Sh. Lozovsky's dictionary: «Competition represents a civilized, legalized form of struggle for existence and one of the most effective mechanisms of selection and regulation in the market economy» (Raizberg, Lozovskii & Starodubtseva, 2001).

There are different methodological approaches, theoretical definitions, and interpretations of competition analysis, from the widely known formula stating that competition is a «war of all against all,» to the as yet little-known interpretation of competition as a special form of cooperation between rival firms.

Summing up and summarizing the five hundred years of evolution of the definition of «competition», we can say that in defining the economic content of this concept in the scientific literature there are three approaches: behavioral, structural, functional.

1) Historically, the behavioral approach was the first to define competition. Neoclassical theory, coming close to a behavioral approach, defines the content of competition as a struggle for rare economic goods.

2) According to the structural approach, the competition is determined by the type of market and the conditions that dominate it.

3) The functional approach shifts the consideration of the economic essence of competition to the study of its place, purpose, and role in economic development.

## Results and discussion

We want to be consistent in the further presentation of the subject we study – competition – it is necessary to disclose the basic conceptual and categorical structure of the theory of competition, competitive relations. This structure is used exactly to study these relations.

«Competition» in the sense of «overcoming others», i.e., as a contest, tournament is an attributive property of «encountering» and a universal condition of survival of all living organism: biological and social. As a real process and objective phenomenon, it gets its external expression in the behavior, structure, functioning of various organic and social systems. Hence, the different approaches to the nature of competition we mentioned earlier, viz: behavioral, structural, functional, in our opinion, are nothing but specific forms of external expression of the single essence of competition – biosocial and/or sociobiological inherent attributive property of all living things to «encounter».

«Competitor» – rival(s), competitor(s), contestant(s), i.e., embodied, personified carriers, subjects of competition, in this case, economic entities (systems).

«Competitiveness» is an inherent property, an immanent attribute inherent in competition as a real

process, phenomenon, and competitors as personified subjects (bearers) of competition.

«Competitive capacity» is a measure (degree, level, acuteness) of expressed competitiveness of a system (subject) as an inherent property, an immanent feature of competition as a process, phenomenon, and real competitors as the main subjects of this process, phenomenon. This measure, i.e., competitive capacity, in turn, is determined by the «competitive power» and «competitive will» of competing systems and actors.

By «competitive power» we mean a set of features and parameters that make it possible, the readiness of the system (entity) to act actively in order to achieve greater benefits and advantages relative to others.

By «competitive will» we mean the highest manifestation of universal and spiritual and moral tension in the subject of competition in achieving cherished desires and the ultimate goal – to be the best, to have more benefits and advantages relative to others.

The organic unity of competitive power and competitive will can be denoted by the notion of «competitive quality» which consists of a set of specific quantitative and qualitative «power» and «will» features and parameters of the system (entity) inherent in it potentially and currently, naturally and artificially acquired, so necessary to achieve the goal sought and realized under certain conditions. Competitive quality constitutes the «hard core» of the competitor(s) and the competing system(s). In this status, it is an internal (endogenous) factor of competition, competitiveness, competitive capacity of a given system.

Competitive capacity can be potential, probable, and real, actualized. Potential competitive capacity of any subject is determined by competitive power of this subject, while its real, actual competitiveness is determined by comparison with the competitive power of its counterpart, competitor. It is only when they meet (personally or not) «on the battlefield» that the competitive strength of both the first and the second subjects is determined in their clash.

But that's not all. The final, realized competitiveness is determined and depends on the competitive will of the counterparties. If they are of equal competitive strength, the one who has strong-willed qualities wins the competition, i.e., striving for the desired goal is more pronounced, more powerful, more expressive (patience, equanimity, wisdom). In other words, in competition, the winner is the one who has the most expressive competitive quality as the unity of competitive power and competitive will. So, the final, real competitiveness consists of a synergetic synthesis of competitive powers, competitive wills – competitive qualities of counterparties at their real, actual collision in a certain space and time, i.e., in their attitude and relationship to each other in the process of competitive interaction. Hence, another derivative but fundamental notion arises – the competitive attitude(s).

Competition as a process, as a phenomenon, as an attitude takes place only in a certain spatial and temporal environment, which can be called «competitive environment». If the «environment» is everything that surrounds the system and interacts with it in any way, then the «competitive environment» is understood as a totality of all geographical spaces, conditions, factors, and norms external to the competing system, which predetermine its real behavior, structure, and functions.

In other words, the competitiveness of a system depends not only on the internal competitive qualities of that system but also on the 'external factors and conditions', i.e., other, more general systems and structures, called for the first system (subject) the «competitive environment» surrounding, enveloping, and interacting with this system. Moreover, it is necessary to distinguish «specific potential competitive environment» and «real competitive environment», i.e., the environment that actually affects a given system, as well as the overall competitive environment that affects all competing systems in the same way. The latter is formed primarily within the available formal and informal institutional environment, as well as a broad «social background» in the form of a system of social relations. Hence, competition, competitiveness, competitive capacity, competitive quality, respectively, as an attitude, as a process, as an activity, as a form of discovering a certain phenomenon, thing, phenomenon cannot be other than production relation(s) in the form of socio-economic relations.

Thus, competitiveness of a system (entity) consists of internal (endogenous) competitive qualities of both this system and its competitor (counterpart) as well as external (exogenous) factors arising from potential and real relations and interactions between competing systems and entities which, in their turn, get expressed

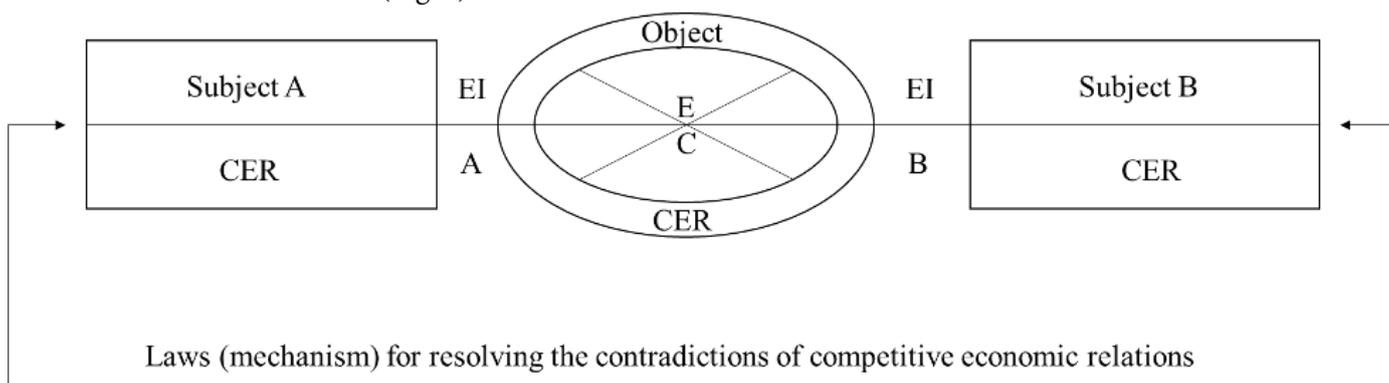
in such a notion as «competitive attitude» (competitive relations). The concept of «relation» comes from the Latin «relatio». So «relation» is from «relative», from relating something to something, someone to someone on some basis (object, weight, condition, volume, norm, significance, degree, etc.). Consequently, «relation» is derived from the dependence and interdependence (objective and subjective) of subjects on some correlated basis – an object, a feature, behind which, ultimately, a universal relation is hidden. Although it should be emphasized that not every relation is a direct relation; it is most likely an indirect connection, an «end-to-end connection».

Transferring this understanding of «attitude» to competition, we get the concept of «competitive attitude(s)». «Competitive relationship(s)» is a relationship(s) that arises between different self-similar (in this case, economic) entities about a particular object (subject, matter) of activity in order to achieve certain advantages and benefits relative to each other, i.e., competitive advantages. In turn, the competitive advantage of a given business entity (system) depends on many factors (drivers): internal and external, or more precisely, competitive factors.

So, at this stage of conceptual and categorical analysis of the competition theory, the logic of the above concepts is as follows: competition – competitor(s) – competitiveness – competitive capacity – competitive power – competitive will – competitive quality – competitive attitude(s) – competitive environment – competitive advantage – competitive factor(s).

Thus, it follows from the above that there is no market without competition, but competition in its «primordial» form – as «tournament», «contest», and «rivalry» or as «feud» will take place. Hence, a market will be a market only in the presence of competition, which, in turn, will be strengthened or weakened only in the presence of some «competitive factor» or a whole system of «competitive factors».

Of the above system of conceptual and categorical apparatuses, the key (core) concept is that of «competitive attitude(s)». It begs the question: what is the «cellular» structure of the individual competitive economic relation which is the initial basis of the whole system of competitive relations in human society? Creatively using and developing the methodological approach of Professor O.Yu. Mamedov to the structure of a separate production relation (Mamedov, 1983), we present the «cellular» structure of a separate competitive economic relation as follows (Fig. 1).



**Figure 1.** «Cellular» structure of a separate competitive economic relation

Source: composed by the author

Competitive economic relations (CER) of people as a subject of market economy is an organic unity: Competitive actors (CA) – people, businesses, and institutions; objects (subjects) of the CA; economic interests (EI) of CA, economic contradictions (EC) of CER; laws (moral, economic, political, legal), regulating competitive-economic relations and mechanisms for resolving their contradictions. This theoretical «structural-cell» model of a separate competitive economic relation has not only an important cognitive value, but also a great applied value, having the greatest explanatory and solving power for each specific problem arising from the mismatch of economic interests in the subjects of competitive economic relations.

### Conclusion

1. We attempted to streamline a more complete basic conceptual and categorical structure of the

general theory of competition, which includes the following chain of concepts: competition – competitor(s) – competitiveness – competitive capacity – competitive power – competitive will – competitive quality – competitive attitude(s) – competitive environment – competitive advantage – competitive factor – innovative competitive factor, structure of individual competitive attitude with author's definitions of each of them.

2. We discovered and created the elementary «cell» structure of a separate competitive economic relation in the unity of subjects of competitive relations (CA) – people, economic structures and institutions; objects (subjects) of CA; economic interests (EI) of CA, economic contradictions (EC) of CA; laws (moral, economic, political, legal), regulating competitive-economic relations and mechanisms for resolving their contradictions.

3. Systematized conceptual and categorical apparatus of the general theory of competition and the developed structural model of a separate competitive economic relations will allow further deepening of theoretical research of the competition phenomenon, in the author's opinion, as well as their effective use in the implementation of government programs of any country, in this case, the Republic of Kazakhstan, on innovative development of the national economy in order to achieve high mission of Kazakhstan in the coordinates of modern and future world and

### References

1. Aliev, U. Zh., & Shimshikov, Zh. E. (2013). Conceptual and categorical structure of the general theory of competition. *Mezhdunarodnaya nauchno-prakticheskaya konferenciya «Strategiya Kazakhstan-2050: praktika i perspektivy formirovaniya i effektivnogo ispol'zovaniya konkurentnykh faktorov modernizatsii i innovatsionnoi industrializatsii ekonomiki RK»*. Astana: Ministry of Finance, JSC Financial Academy, TOO Master Po.; (2014) Basic conceptual and categorical apparatus of the general theory of competition. *Teoreticheskaya ekonomika*, (1), 13-20. Retrieved from [https://www.ystu.ru/1\\_\(19\)\\_2014.pdf](https://www.ystu.ru/1_(19)_2014.pdf) (in Russian)
2. Porter, M. E. (2008). *On Competition*. Updated and Expanded Ed. Boston: Harvard Business School Publishing.
3. Rubin, Yu. B. (2008). *Competition: orderly interaction in professional business*. M.: Market DS (in Russian).
4. Bor, M. Z. (1998). *Fundamentals of economic research. Logic, methodology, organization, methodology*. M.: DIS Publ. House, 1998 (in Russian).
5. Gordeev, V. A. (2008). *Competition and its development*. Yaroslavl: YSTU Publ. House (in Russian).
6. Abalkin, L. I. (Ed.). (1999). *Economic Encyclopedia/RAS Economics Institute*. M.: Ekonomika (in Russian).
7. Prokhorov, A. M. (Ed.). (1972). *The Great Soviet Encyclopedia*. (3d ed.). (Vol. 8). M.: Sovetskaya Entsiklopediya (in Russian).
8. Lopatnikov L.I. (1996). *Economic and Mathematical Dictionary Dictionary of Modern Economics*. (4d ed.). M.: ABF, 1996 (in Russian).
9. Azrilyan A. N. (Ed.). (1996). *The Big Dictionary of Economics*. (6d ed.). M.: ABF (in Russian).
10. Raizberg, B. A., Lozovskii, L. Sh., & Starodubtseva, E. B. (2001). *Modern Dictionary of Economics*. (3d ed.). M.: Infra-M (in Russian).
11. Mamedov, O. Yu. (1983). *Socialist Production Relationship*. Rostov-na-Donu: RSUPubl. House; (1990). *The Political Economy of Socialism. Introductory Lecture*. Rostov-na-Donu: Izdatel'stvo Rost. un-ta; (1997). *Production Relation. The Political-Economic Model*. Rostov-na-Donu: Feniks, 1997. (in Russian).

© Urak Zh. Aliev, 2021

Received 10.06.2021

Accepted 10.08.2021

# A UTILITY APPROACH TO ASSESSING THE COMPETITIVENESS OF SOCIO-ECONOMIC SYSTEMS

Valery F. Bainev 

Belarusian State University, Belarus

E-mail: Baynev@bsu.by

**Abstract.** The paper considers the shortcomings of traditional approaches to the assessment of efficiency and competitiveness of socio-economic systems. It shows that the focus of these systems on cost-based, typically cost-effective performance indicators served as the main reason for the aggravation of global contradictions in the development of civilization, which threatens its further existence. The paper reveals the basic provisions of the utility (consumer-value) concept of economic theory, the use of which in assessing the effectiveness and competitiveness of socio-economic systems can bring humanity to a truly crisis-free, conflict-free development path.

**Keywords:** socio-economic system, competitiveness, efficiency, value, utility, consumer value, labor economy, labor theory of value, labor theory of consumer value, free time of society, fading competition.

**JEL codes:** B41

**For citation:** Bainev, V. F. (2021). A utility approach to assessing the competitiveness of socio-economic systems. *Journal of regional and international competitiveness*, 4(3), 9-14. Retrieved from <http://jraic.com/index.php/tor/article/view/54>

**DOI:** 10.52957/27821927\_2021\_3\_9

## Introduction

In modern conditions of unprecedented aggravation of competition between socio-economic systems of different levels such as individual companies, economic activities, industries, regions, national economies, interstate associations, the problem of objective assessment of their performance and competitiveness requires special treatment. Unfortunately, the vast majority of both traditional and new approaches to this assessment are based on a number of, in general, typical conceptual, theoretical, and methodological provisions, not allowing, in our opinion, to fully solve the specified problem (Kara & Minina, 2016; Moseiko, Korobov & Tarasov, 2015).

First, in its most general way, competitiveness of the socio-economic system is viewed in terms of its participation in the struggle with other subjects of economic activity for the limited natural, labor, financial, etc. resources as the ability to take them away from competitors in the required quantity. Thus, the analyzed category appears as a non-immovable property of the system, which is qualitatively and quantitatively manifested only in comparison with other similar entities. At the same time, it is obvious that even if there suddenly appears a hypothetical situation where there is only one economic entity in the world economy, monopoly controlling all the planetary resources, even then it will require the ability to fight with the external environment (nature) for limited and moreover rapidly consumed by mankind resources. Competitiveness, as we understand it from this point of view, is an intrinsic ability of every socio-economic system to make and implement economic decisions which are more or less consistent with the principles of conflict-free (with the environment, nature) development. By the way, in the light of the worldwide trend of monopolization of the world economy by superlarge transnational corporations, fundamental transformation of competition and its «extinction» through the current aggravation (Gordeev, 2006; Gordeev, 2007; Gordeev, 2013) the above described hypothetical situation seems more and more realistic.

Secondly, competitiveness of a socio-economic system is usually evaluated by a certain integral (comprehensive) indicator built on a number of particular significant criteria and indicators. On the one hand,

the presence or absence of any particular indicators is often conditioned by both objective and subjective prerequisites associated with individual researchers' perceptions of efficiency and competitiveness, specifics of their objectives, etc. As noted by the famous Russian researcher Shkiotov, S.V., who investigated in detail the relationship between indicators of national competitiveness and economic growth recorded by international institutions, «the use of composite indicators as a basis for comparison revealed the problem of practical incomparability of data for the countries under study and the selected time period, despite the diversity of institutions, and reports on cross-country comparativism. All the indicators used, as well as data from the WEF and World Bank reports, are subjected to reasonable criticism by the scientific community; it is not only a question of changing the methodology of calculation, the theoretical basis of such studies is questioned itself. That is why the results of studies using these sources should be approached in a very balanced way, taking into account the criticism and existing objective limitations in international statistics» (Shkiotov, 2013). On the other hand, some methodologies for assessing competitiveness contain an unreasonably large number of significant indicators and indicators, which not only overloads it, but also ultimately makes it difficult, and sometimes even impossible, to make managerial decisions to improve it.

Thirdly, within the neoclassical «mainstream» imposed to former USSR countries, including Russia and Belarus, efficiency and competitiveness of socio-economic systems ultimately boil down to their ability to generate and maximise profits more or less than competitors do. In other words, competitiveness is considered from the position of cost criteria of economic efficiency – profit and its derivatives. Unfortunately, the vectors of development of socio-economic systems, which are focused on the cost criteria of economic efficiency, often do not correspond to public interests, and sometimes even contradict them. Profit-maximizing industries, such as environmentally hazardous industries, do not meet such interests, although their high efficiency is based on the ruthless exploitation of natural forces. The same can be said of the drug and porn industry, loan sharks, human trafficking, selling human organs, weapons, etc.

### **Results and discussion**

We have to admit that the focus of socio-economic systems on maximum profit is the main reason for the emergence and unprecedented aggravation of global contradictions in the development of Earth civilization – raw material, energy, environmental, food, demographic, and other problems. The target criteria for the functioning of modern business entities are the gross product, value added, profit and its derivatives. From the point of view of classical political economy and, in particular, the labor theory of value, all these are typically value indicators, the essence of which is the cost of living, past, necessary, surplus labor. Thus, the universal focus on maximizing value indicators indicates that the modern world is dominated by a cost-based model of the economy, the operation of which results in costs. Cost maximization as a goal and result of the functioning of socio-economic systems is the main obstacle to crisis-free, conflict-free development of civilization.

Humanity is entering a stage of its development when all of us should seriously concern ourselves with the search for new, fundamentally different criteria for assessing the economic efficiency and competitiveness of socio-economic systems at various levels, ensuring the harmonization of their interests with the aspirations and demands of the human community as a whole. We are convinced that this problem can be solved by taking the consumer-value (utility) concept of economic theory. Theoretical and methodological foundations of this concept were developed by the major Soviet and Russian political economist Elmeev V.Ya. (2007), and then developed by the students of the scientific school created by him in Russia and Belarus: Gubanov S.S. (2012), Daderkina E.A. (2008), Dolgov V.G. (2003), Tarando E.E. et al. (2003).

This concept is based on the fundamental provisions of the labor theory of consumer value, according to which the utility (use value) of economic goods is an objective and quantifiable value, the value of which is uniquely determined by savings of living labor (working time), provided by a particular good at its use. The labor theory of consumer value organically complements the labor theory of value by Karl Marx and makes classical political economy as a whole logically complete, because it makes it possible to measure and compare in unified labor units not only the value, but also the use value (utility) of economic goods.

The main provisions of the utility (consumer-value) approach to the assessment of socio-economic processes are reduced to the following basic assumptions.

1. Any product (economic good) has a dual nature, because, on the one hand, it has a well-defined value, and on the other hand, it acts as a carrier of utility, is a use value. As it is known, in political economy, the value of a product (good) in its most general form is usually understood as a quantitative proportion, based on which the owner (producer) of a product (good) voluntarily exchanges it for another product he needs. In this case, supporters of the labor theory of consumer value adhere to the labor approach to measuring the value of the product, evaluating it by the cost of labor (working time) required for the reproduction of the analyzed good. In other words, from the point of view of the consumer-value concept of economic theory, as well as from the point of view of the labor theory of K. Marx, value is a quite objective and quantifiable category.

2. As for the utility (use value) of a product, it is known to mean its ability to satisfy some human need. Unfortunately, the vast majority of economists consider utility (use value) as a purely subjective economic category that depends on individual preferences of the consumer, the conditions of use of the good, its rarity, etc. In doing so, quite convincing examples are usually cited as incontrovertible evidence of the subjective nature of utility. For example, cigarettes (alcohol, drugs, etc.) satisfy a very urgent need for one person, but they are completely useless (and even harmful) for another. Felt snow boots, which are extremely useful in freezing weather, become unnecessary in the summer heat, and sandals, on the contrary, are worn in summer and thrown in the closet in winter. From the point of view of the theory of marginal utility, which is the foundation of the current «economic mainstream,» the first loaf of bread brings a hungry person much more benefit than the second, third and even more so the hundredth. It turns out that the utility of this very loaf is a variable value, depending not only on the preferences of the consumer, but also on the rarity of this good. In other words, these and many other such examples lead most of us to believe that utility (use value) is a subjective, quantitatively unmeasurable category.

Despite this, the labor theory of consumer value argues that the utility (use value) of a good, as well as its value, is an objective and, therefore, quantifiable quantity. At the same time, supporters of this direction of economic theory, dividing goods into means (factors) of production and consumption items, have developed conceptual, theoretical-methodological, and even methodological foundations for quantitative measurement of utility so far only means (factors) of production. The problem of quantitative analysis and objective comparison of the utility of consumption items is still under scientific development and is conceptually solved only for some of them (for example, for food products, based on their caloric content, saturation of proteins, fats, carbohydrates, micronutrients, vitamins, etc.).

3. When assessing the utility of the means of production, the utility (consumer-value) concept of economic theory proceeds from the fundamental position that the political and economic mission of technical and technological progress in general and the purpose of its specific achievements are ultimately reduced to increasing productivity (economy) of labor (Baine, 2020). Indeed, production equipment, vehicles, household appliances, etc. have the same general purpose – to facilitate working and living conditions, to save labor, muscular and mental energy and, ultimately, to save working time. Based on this, supporters of the labor theory of consumer value draw a fundamental conclusion that the utility (use value) of any factor of production is its ability to save human labor, saving his working time. It turns out that quantitatively the value of utility (use value) is determined by the amount of working time, which allows you to save a particular factor of production in its productive use.

For example, let us assume that the excavation of a foundation pit for a residential house using a shovel requires 10,000 man-hours (man-hours) of live (simple) labor. An excavator operator, on the other hand, does the job in just 10 man-hours with an excavator. This means that in this particular case, the usefulness of the excavator is determined by objective and quite measurable quantitative value – the amount of human labor in the amount to 9990 man-hours, which will replace (save) the excavator digging excavation. Saved working time (and the resulting cash savings) – this is the only reason to buy and use an expensive excavator instead of a cheap but inefficient shovel.

Obviously, the utility of an excavator (and any other machinery) is determined by the total amount of

live labor that this machine will save its owner over the entire period of its use. If one machine during the whole period of its operation is able to save its owner 1 million man-hours, and the second one – twice less, the usefulness of the second machine is half as much as the first one. It should be noted that, taking into account the well-defined cost of each man-hour of simple labor, the saved time translates into corresponding savings of financial resources for the entrepreneur using the technology.

4. When comparing the costs and savings of labor, supporters of the utility (consumer-value) concept of economic theory take into account its complexity and use the techniques of reducing complex labor to simple labor, and vice versa. Thus, when analyzing the above case of using an excavator instead of a shovel, consider that an excavator replaces 10,000 man-hours of simple digger labor but requires 10 man-hours of excavator operator's complex work because he is a more skilled worker than the digger. Therefore, to compare labor costs of an excavator operator and a digger, it is necessary to use the method of labor reduction – reduction of complex labor to simple labor. In the simplest case, the indicated reduction can be made by reducing the complex work of an excavator operator, say, of the sixth qualification category, to the simple work of a digger of the first qualification category using the corresponding tariff coefficient of the Unified Wage Scale, in this case equal to 1.9. Taking this into account, the usefulness of the excavator in the above case will be less than our calculated value and will be only  $(10,000 - 10 \times 1.9) = 9,981$  man-hours of simple labor. Today we have also developed more precise approaches to the reduction/multiplication of labor based on the ratio of human physical (muscular) energy expenditure and the amount of third-party natural energy involved in the production process by the power of his intellect. It is clear that when calculating the usefulness of the excavator over its entire service life, not only the savings of simple labor during this period must be taken into account, but also the associated labor costs of the excavator operator and other workers who operate the machine.

5. When calculating the beneficial (value-added) economic effect from the operation of an excavator, one should not ignore the fact that although this machine saves human labor, its creation and routine maintenance (e.g. repairs, fueling, etc.) requires much more labor inputs compared with the option associated with the use of a shovel. This means that when calculating the utility economic effect in the form of labor savings provided by the excavator from its utility (cf. above) must be subtracted from the cost of past labour incorporated in the excavator during its construction, i.e., the cost of the excavator. Likewise, we must account for the cost of past labor embodied in the fuel and other consumables used by the excavator.

The utility (consumer-value) economic effect from the exploitation of the technical factor of technology production is determined by the absolute saving of total (living and past) labour, which this technology provides to society for the whole period of its exploitation. Note that this effect simultaneously takes into account both useful characteristics of construction machinery (savings in live labor) and cost parameters (cost of past labor, embodied in machinery and consumed by it consumables). Consequently, the utility (consumer-value) analysis comprehensively takes into account all aspects of the technical factor of production, since the requirement of maximizing the utility (consumer-value) economic effect simultaneously aims at: (a) an increase in the utility (productivity) of the technique as a saving in live labor that will be provided by the technique to the consumer; b) saving consumables (e.g. fuel, spare parts, electricity, water, etc.) when the equipment is operated by the user; c) the reduction of its value, i.e. the cost of past labor embodied in the technology in the process of its manufacture.

It should be noted that at present the above theoretical and methodological provisions of the utility (consumer-value) approach to efficiency and competitiveness assessment have found their practical embodiment in a number of working methods. These techniques allow quantitative calculation of utility (use value), utility (use-value) effect, and utility (use-value) efficiency of energy and technical (industrial robots, agricultural, construction, other technology) factors of production. This is a very important achievement because, from the point of view of experts of the World Economic Forum and other international organizations, the level of development of technologies, as well as the energy-efficient equipment implementing these technologies is a key factor of competitiveness in the current conditions of formation of the technotronic type economy.

We are convinced that competitiveness of socio-economic systems is an intrinsic immanent property,

it acts as their objective, quantifiable characteristic. In our opinion, competitiveness is entirely determined by the ability of business entities to generate and maximize not at all profit, but a utility (consumer-value) effect, which implies a comprehensive saving of costs of live and past labour, energy, raw materials, and other material resources. In this case, perhaps, the most important political and economic result should be considered the saving of working time and, therefore, the maximization of free time of society, which it can and should use for further development, including the solution of global problems faced by mankind. For only when free from hard physical, routine, non-creative work in the name of simple survival, a person can establish himself as a scientist, artist, athlete, teacher, family person...

### Conclusions

In conclusion, we should note that the foundations of utility (consumer-value) analysis outlined in this article are not merely speculative theoretical arguments relating to the remote prospects of utopian development of socio-economic systems. We are convinced that their «natural selection» in the process of competition was done in the past, is being carried out now and will be made in the future precisely on the basis of the criterion of maximizing the utility (consumer-value) economic effect.

To prove this, consider the example of global competition between capitalist and socialist systems in the last century. It is known that Soviet political economy with the labor theory of value in its theoretical basis, as well as the Western economic schools, perceived utility (consumer value) as a subjective and, therefore, quantitatively indefinable, immeasurable characteristic of economic goods. The fundamental inability of Soviet economic science to calculate the utility (use value) of produced economic goods objectively determined that the socialist economy was forced to focus on the planned maximization of available cost, typically capitalist, cost indicators – the notorious «gross» profit, profitability, etc. Although it is clear that it was necessary to increase not the total value of goods produced by the Soviet economy, but their total utility (consumer value). With the Gosplan-guaranteed sale of everything produced, socialist enterprises in pursuit of the planned increase of value indicators deliberately increased the price of their products, while their uncontrolled utility, alas, was more and more inferior to their Western analogues. Capitalist countries, on the other hand, had an empirical tool for determining utility in their arsenal – competitive markets, which reliably blocked the manufacturing of products with low utility characteristics, which provided a decisive competitive advantage for the global capitalism.

Thus, competitive markets in reality reward with dollar-euro-ruble mainly those who are able to make products that provide the greatest utility (consumer-value) effect to their consumers, and thus to society as a whole. We think that if Soviet political economists had been able to determine (measure, calculate) the utility of produced economic goods without the services of a competitive market and to target the functioning of economic systems to maximize it, then the outcome of the competitive confrontation between the world systems of capitalism and socialism could have been quite different. The desire of Soviet leaders to compensate for this fatal error in Soviet political economy forced them to turn first to the model of self-supporting socialism, and then forced them to begin «perestroika» as an attempt to «meld» competitive market capitalism with the advantages of socialism. As a result, the main target, profit, as a typically capitalist indicator of efficiency and competitiveness, led the Soviet economy to capitalism, conditioning the collapse of the entire world socialism system.

By the way, with the current monopolization of the world economy by super-big transnational corporations, as discussed above, competition is, alas, inexorably fading. Markets are getting worse and worse at fulfilling their main purpose – to reward mainly those who produce the most useful economic goods with dollar-euro-ruble. For this reason, the relevance of the utility (consumer-value) concept of economic theory will only increase day by day.

### References

1. Kara, A. N., & Minina, A. P. (2016). Analysis of approaches to the essence of the concept of competitiveness. *Karel'skii nauchnyi zhurnal*, 5(1), 45-47 (in Russian).

2. Moseiko, V. O., Korobov, S. A., & Tarasov, A. V. (2015). New approaches to assessing the competitiveness of socio-economic systems. *Kreativnaya ekonomika*, (2), 237-252 (in Russian).
3. Gordeev, V. A. (2006). *Competition and its development: systems analysis*. Yaroslavl: Izd-vo YGTU (in Russian).
4. Gordeev, V. A. (2007). A trend towards collaboration and cooperation instead of competition: a new confirmation of T. S. Khachaturov's idea. *Vestnik Moskovskogo universiteta. Seriya 6 «Ekonomika»*, (2), 16–27 (in Russian).
5. Gordeev, V. A. (2013). Competition and its dynamics in the mirror of theoretical economy. *Teoreticheskaya ekonomika*, (6), 17-25. Retrieved from <http://theoreticaleconomy.ru/index.php/tor> (in Russian).
6. Shkiotov, S. V. (2013). Relationship between the dynamics of national competitiveness indicators and economic growth. *Teoreticheskaya ekonomika*, (6), 54-65. Retrieved from <http://theoreticaleconomy.ru/index.php/tor> (in Russian).
7. Elmeev, V. Ya. (2007). *Social economy of labor: general fundamentals of political economy*. SPb.: Izd-vo SPbU (in Russian).
8. Elmeev, V. Ya. (2004). *Theory and Practice of Social Development*. SPb.: Izd-vo SPbU (in Russian).
9. Dolgov, V. G., El'meev, V. Ya., Popov, M. V., & Tarando, E. E. (2003). *The working society is the future*. SPb.: Izd-vo SPbU (in Russian).
10. Dolgov, V. G., Elmeev, V. Ya., & Popov, M. V. (1997). *Lessons and prospects for socialism in Russia*. SPb.: Izd-vo SPbU (in Russian).
11. Bellu, E., Volovich, V. N., Elmeev, V. Ya., Zibrova, G. P., & Popov M. V. (2003). *From the law of value to the law of use value*. SPb.: Izd-vo Fonda Rabochei Akademii, OOO Tvorcheskii tsentr Pobeda (in Russian).
12. Gubanov, S. S. (2012). *A sovereign breakthrough. Neo-industrialization of Russia and vertical integration*. M.: Knizhnyi mir (in Russian).
13. Bainev, V. F., & Daderkina, E. A. (2008). *Scientific and technological progress and sustainable development: Theory and practice of utility (consumer-value) assessment of new machinery efficiency*. Minsk: Pravo i ekonomika. Retrieved from <http://www.elib.bsu.by/handle/123456789/55119> (in Russian).
14. Bainev, V. F. (2020). *History of Knowledge Economics: technical-technological and political-economic analysis*. Minsk: Pravo i ekonomika (in Russian).

© Valery F. Bainev, 2021

Received 20.07.2021

Accepted 10.09.2021

# RESTRUCTURING OF NATURAL MONOPOLIES AS A FACTOR IN IMPROVING THE COMPETITIVENESS OF NATIONAL ECONOMIES: THEORETICAL ASPECTS

Rustem M. Nureev

Financial University under the Government of Russian Federation  
Institute of Economics of the Russian Academy of Sciences, Russia  
E-mail: Nureev50@gmail.com

**Abstract.** The article focuses on the problems of restructuring natural monopolies. The development of modern methods of natural monopolies regulating is an important factor of increasing competitiveness of the Russian economy. The article analyses the development of the concept of natural monopolies, their characteristic features, traditional and modern methods of regulation.

**Keywords:** natural monopoly, traditional and modern methods of regulation of natural monopolies, price limits, two-component tariff.

**JEL codes:** D18, D24, D42

**For citation:** Nureyev, R. M. (2021). Restructuring of natural monopolies as a factor of increasing the competitiveness of the national economy. *Journal of regional and international competitiveness*, 4(3), 15-22. Retrieved from <http://jraic.com/index.php/tor/article/view/55>

**DOI:** 10.52957/27821927\_2021\_3\_15

## Introduction

There are many discussions of the problems of regulating natural monopolies in the economic and legal literature (Vasev, 2021; Krasnova, 2021; Zugumova & Isakova, 2019; Fine & Repetyuk, 2021; Kurochkin et al., 2021; Loktionov, 2021). This is related both to the permanent rise of prices for their services and the raw material orientation of our country.

Meanwhile, the problem of natural monopoly was highlighted in 1848 by John Stuart Mill in «Fundamentals of Political Economy with Some Applications to Social Philosophy». He identified the problem of unnecessary duplication of transmission networks that could occur in public sectors. Leon Walras wrote about the relationship between natural monopoly and regulation in terms of application to the construction and function of railways. Recently, a neo-institutional approach to the regulation of natural monopolies emerged as a critique of neoclassics. Ronald Coase is one of its founders. But he focuses on radio broadcasting, the postal monopoly and courier companies.

Coase published a number of articles on the analysis of natural monopolies: in 1950, his article «British Radio Broadcasting: A Study of Monopoly», in 1955, «Postal Monopoly in Great Britain: A Historical Review», and in 1959, «The Federal Communications Commission: A Study of Monopoly» and in 1961, «The British Post Office and Courier Companies». Coase focused on the idea that state monopolies were imposing their own standards to society and infringing on press freedom. This was particularly evident in British broadcasting, where the frequency range is not subject to the price mechanism. Coase dealt with the problem of externalities and the creation of an efficient system of property rights. However, by the influence of state monopolies criticism, mechanism for regulating natural monopolies was criticised. The cycle is completed by «Lighthouse of Economic Theory», published in 1974.

## Results and discussion

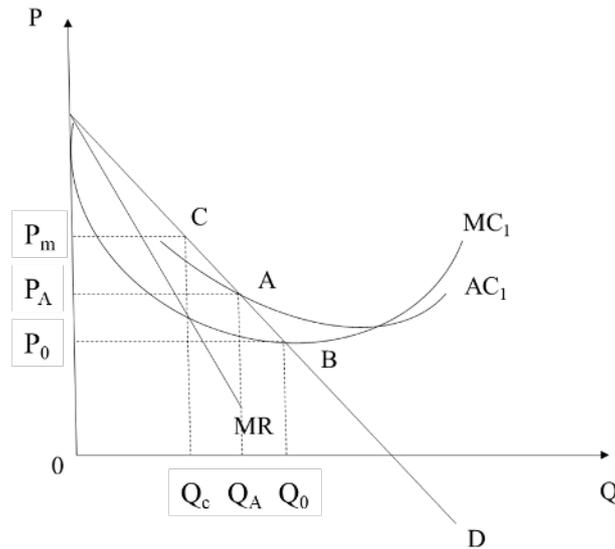
*Definition of a natural monopoly and the conditions for its existence*

Monopoly cannot be avoided in a number of sectors. You cannot have two gas pipelines from two competing companies, multiple heat transmission lines, alternative sources of electricity, etc. in one flat. In most infrastructure sectors, the monopolies occur naturally and the government has to regulate them directly or indirectly.

Examples of natural monopolies are pipeline gas transportation; electricity and heat transmission services; railway transportation; transportation terminal services, ports, airports and public electric postal services.

In the 1930s and 1940s, the question of price levels under natural monopoly conditions was hotly debated in the US (Coase, 1990). In perfect competition,  $P = MS$ ; this price ( $P_b$ ) is optimal from society's point of view because it ensures the most efficient allocation of resources (Figure 1). However, in terms of this price, production may be unprofitable for a number of producers. As costs varied from producer to producer, so did prices.

Under these conditions, the consumer is unprotected from the blackmailing of the producer, who can inflate the price under a variety of (real or far-fetched) pretexts to the level of  $R_s$ . As the government aims to moderate the «appetite» of the natural monopolies, it sets an equal price for all at the average cost level ( $R_a$ ).



**Figure 1.** Regulated natural monopoly

*Source: composed by the author*

Although this price leads to a reduction in the quantity of goods provided compared to the optimal case ( $Q_a < Q_c$ ), consumers still receive more compared to the case of an unregulated natural monopoly ( $Q_a > Q_c$ ). A price set at average cost is called a «fair profit price».

The technological reason for natural monopoly is positive economies of scale and global subadditivity of production costs (Vouros & Rozanova, 2000).

The decision in favour of a natural monopoly often arises when there are high transaction costs, which can be eliminated with the development of technology and social institutions. In addition, if demand increases, more firms may be needed to expand their production.

The following assumptions are used in defining a natural monopoly:

- a) We know the firm cost functions;
- b) fixed supply and constant demand.

In real, there may not be such prerequisites. Thus the greater efficiency of one firm than of several is in doubt.

Thus, natural monopolies are characterised by:

- Strong vertical integration

- Demand inelasticity for goods (services) in the absence of substitute goods.
- High industry entry barriers and high non-refundable costs
- A long return of the investment.
- Environmental physical constraints limiting the number of companies at the same area.

#### *Regulatory mechanisms for natural monopolies*

The history of natural monopoly regulation is divided into two phases. From the beginning of the 20th century until the 1960s, natural monopolies, especially those in transport, communications and energy, were widespread and quite effectively regulated by the government.

In the 1960s and 1970s the natural monopoly conditions in some industries began to decline, and in the following decades a process of new concepts emerged.

A wide variety of options are used. These can be Ramsey's prices (Ramsey, 1927) or regulatory mechanisms to achieve the optimal tariff by I. Vogelsang and J. Finsinger (Vogelsang & Finsinger, 1979) or subsidies in the amount of consumer surplus or growth by D. Sappington and D. Sibley (Sappington & Sibley, 1988) and subsidies for firms with limited capacity under conditions of limited demand, etc. (Korolkova, 2000a)

We consider the traditional and modern mechanisms for regulating natural monopolies in details.

Traditional regulatory mechanisms. They are:

1. Rate of return on equity:

$$f \geq \frac{PQ - wL}{K}; \quad \pi = PQ - wL - rK$$

$$\pi \leq (f - r)K$$

where P - price, Q - quantity,  $\pi$  - profit, L - labour, K - capital, w - wage rate, r - interest rate on capital. if  $f=10\%$  and  $r=8\%$ , the firm is allowed to receive no more than 2% of the value of its capital.

2. Profit margin as a function of output:  $\pi \leq kQ$ ,

where k is the monetary income allowed per unit of production.

3. profit margin as a function of sales (income):  $\pi < kPQ$ ,

where k is the share of income allowed to be converted into profit.

4. Rate of profits as a function of costs:  $\pi < k(wL+rK)$ ,

where k is the share of income allowed to be converted into profit.

These controls are aimed to obtain a fair profit on the capital invested by the enterprise. The main problem with this kind of regulation is the absence of incentives to reduce costs (Cambral, 2003). On the contrary, they lead to an increase of the capital intensity of production. As a rule, regulated natural monopolies have no incentive to improve the quality of the product or service provided. This makes it necessary to set quality standards, or to establish a system of regular inspections.

Within the framework of legislative and legal control, the following can be taken:

- direct regulation of prices, services provided and profitability levels;
- indirect regulation through an excess profits tax.

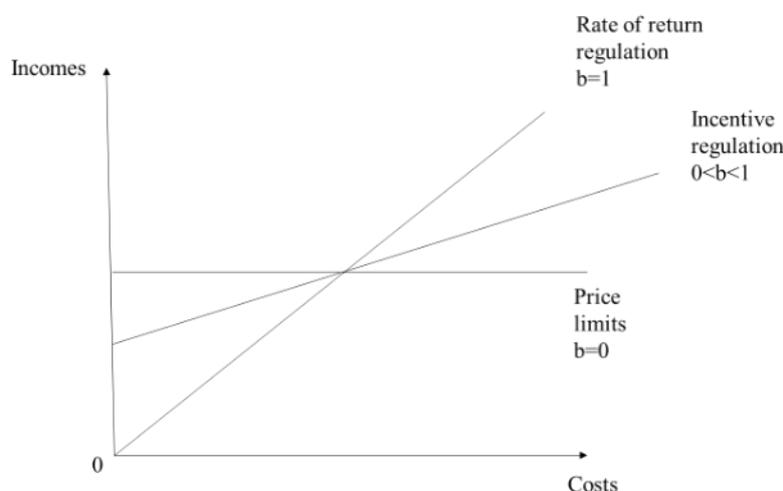
An excess profits tax leaves profits, price and production unchanged and tax revenues are used by the government, while direct regulation allows direct benefits to the monopolist's consumers through the consumption of more output at lower prices (Thompson & Formby, 1998).

Modern regulatory mechanisms. Traditional methods are significantly disadvantaged as they do not contribute to cost reduction. On the contrary, they objectively lead to an increase of the cost of capital and the capital intensity of production. Therefore, models of incentive regulation were developed extensively in the 1970s and 1980s.

The aims of incentive regulation are:

1. Minimise the costs associated with the regulatory process.
2. Give the regulated firm an incentive to reduce costs:

- Effective use of resources;
- Available capacity;
- To interest in innovation;



**Figure 2.** Forms of incentive regulation

Source: composed by the author

$$R = a + bC$$

where  $R$  is income;  $C$  is cost;  $a$ ,  $b$  are coefficients

$0 < b < 1$  (see Fig. 2)

3. Expand the introduction of competition as a means of increasing efficiency

Models of incentive regulation include:

1. Price limits. They set a fixed price for the regulated firm. The aim of this operation is to get the firm to reduce costs ( $b=0$ ). For example, The American Telephone and Telegraph Company (AT&T) is an example of price caps. AT&T establishes three service packs: one for individual consumers and two for companies and businesses. The price cap is indexed according to the growth rate of GNP, minus 3% (which is the average growth rate of productivity in the USA).

2. «Yardstick» competition. This method organises water and electricity regulation in England, where such companies are regional monopolies. The constraint is an estimate based on the level of costs of other firms operating in similar conditions. However, the problem of comparability arises.

3. Profit sharing schemes. This method makes it interesting for companies to improve their profit margins. However, it is in the government's interest that the rate of return does not exceed certain limits. For example, Indiana's electricity sector. If the company's revenues do not exceed 10.6%, the company receives them. If the rate of return is above 12.3%, the company must reduce prices, and the benefits accrue to consumers. Revenues in the range (10.6% to 12.3%) are shared between the company and the consumers.

4. Rates are optional. The firm must provide a defined set of services at regulated prices. However, it can itself offer the consumer an alternative tariff structure.

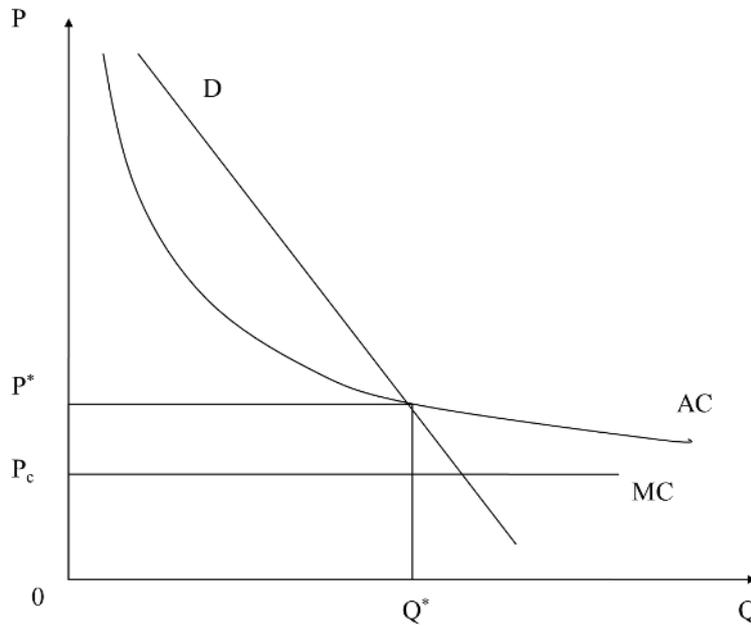
5. Hybrid mechanisms. They can use the previous forms in some combination. An example of a hybrid mechanism is the regulation of telecommunications and gas transportation in the US in the early 1990s. The company sets an aggregate income limit, indexes rates and provides a cost-based rate review. The advantage of hybrid mechanisms is greater price flexibility.

#### *Particular features of pricing in natural monopolies*

Ramsey's prices Frank Ramsey expressed this idea in his paper «Contribution to the theory of taxation» in 1927 (Ramsey, 1927). For a single-product firm, the price is equal to the average cost ( $P=AC$ ) (see Figure 3).

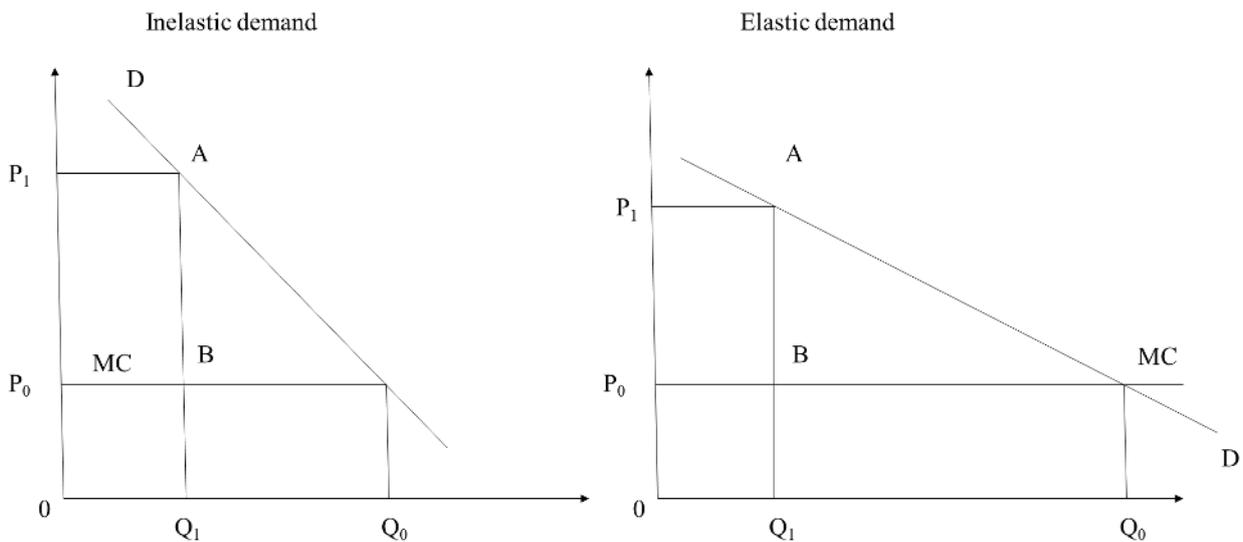
For a two-product firm, profit maximisation is possible at different prices ( $P_1 \uparrow$ ,  $P_2 \downarrow$ ). The price can be increased for products for which demand is less elastic and decreased for those for which demand is more elastic, so that the total profit is unchanged (see Figure 4). In 1970 W. Baumol and D. Bradford: applied this

concept to multi-product natural monopolies (Baumol & Bradford, 1970).



**Figure 3.** Ramsay's pricing in a natural monopoly

Source: composed by the author



**Figure 4.** Inverse elasticity rule

Source: composed by the author

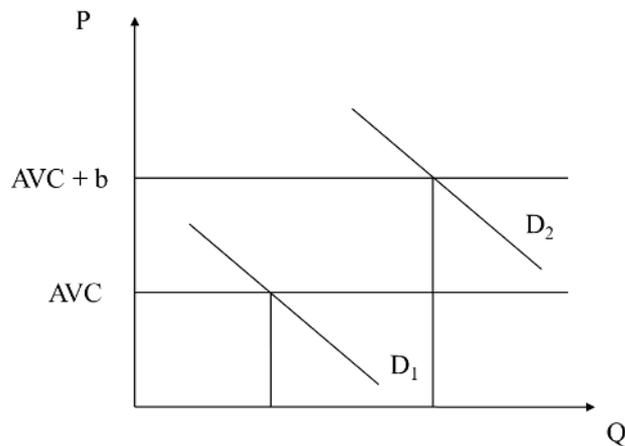
At Ramsay prices, the production volume decreases in each market in the same proportion (compared

to the production volume at  $P=MC$ )  $\frac{\Delta Q_1}{Q_1} = \frac{\Delta Q_2}{Q_{12}}$

The «inverse elasticity rule» applies: the percentage excess of price over marginal cost is greater for products with less elastic demand.

$$\frac{P_1 - MC_1}{P_1} \cdot e_1 = \frac{P_2 - MC_2}{P_2} \cdot e_2$$

where  $\frac{dQ}{dP} \cdot \frac{Q}{P} = \frac{1}{m} \cdot \frac{Q}{P}$ ; where  $m$  is the angle of inclination of the demand curve.



**Figure 5.** Peak-load pricing

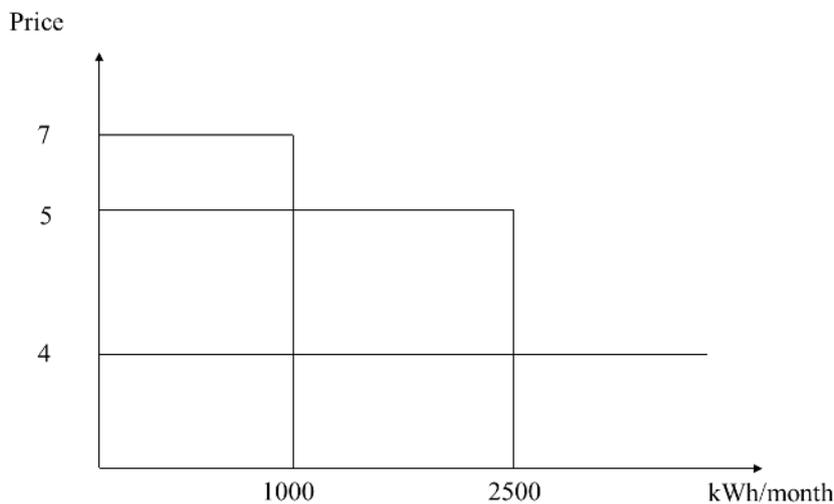
*Source: composed by the author*

Ramsey's prices provide a maximum aggregate consumer surplus, but its distribution is not regulated. The one of the assumptions of the model is that we know the demand and the cost function, so Ramsey's prices are rarely applied in practice

Peak pricing. This method of pricing applies under the following:

- a) There are strong fluctuations in demand over time in the market, and
- b) it is not possible to store the output of a product (usually for services).

When there is no peak load, consumers pay  $P=AVC$  and fixed costs (b) are surcharged during the peak period, i.e.  $P=AVC+b$ . This way, price discrimination is also carried out simultaneously against those consumers who increase demand at this time (see Figure 5).



**Figure 6.** Decreasing block tariff for electricity

*Source: composed by the author*

Tariffs. In the 1980s and 1990s, a variety of tariffs, primarily two-part tariffs and block tariffs, were more widely used.

The access/use tariff - a two-part tariff - consists of: a fixed charge (access charge), the amount of which does not depend on the level of consumption, and a user charge per unit of output (service).

Block tariffs are structured so the unit price of a product or service varies according to the volume of consumption. Rates can both increase and decrease depending on consumption. Figure 6 illustrates an example of a decreasing block tariff. Figure 7 illustrates an example of an increasing block tariff.

## Conclusion

Natural monopolies are a specific type of monopoly characterised by high barriers to entry and high non-recovery costs. The effects of production scale mean that all of society's needs can be met by single company. The problem is the company taking advantage of its monopoly position can raise prices for its services substantially, passing the costs onto customers. Therefore, state regulation of monopolists in such industries has been in place for a relatively long time.

The traditional forms of regulation of natural monopolies, in addition to having well-known disadvantages, do not solve the main problem of their activities and can not reduce production costs. Along with a renaissance of neoclassical thinking, a new stage of reform in the activities of these industries began in the 1970s and 1980s. The main goal of these reforms was to minimise the costs associated with the regulatory process, encourage firms to use available capacity efficiently, increase interest in innovation and increase competition as a means of increasing efficiency.

The second part of this study considers the principles and mechanisms have been implemented in Russian regulation of natural monopolies.

## References

1. Nureev, R. M. (2016). *Course in Microeconomics*. 3 ed. M.: Norma: Infra-M. (in Russian).
2. Mill, J. St. (2007). *Foundations of Political Economy with Some of its Applications to Social Philosophy*. Moscow: Eksmo (in Russian).
3. Coase, R. H. (1950). *British Broadcasting: A Study in Monopoly*. London: Longmans Green; Cambridge, MA: Harvard University Press.
4. Coase, R. H. (1959). The Federal Communications Commission. *Journal of Law and Economics*. Vol. 2.
5. Ramsey, F. P. (1927). A Contribution to the Theory of Taxation. *The Economic Journal*. 37 (145), 47–61.
6. Vogelsang, I. & Finsinger, J. (1979). A Regulatory Adjustment Process for Optimal Pricing by Multiproduct Monopoly Firms. *Bell Journal of Economics*. vol. 10 (1), 157-171
7. Sappington, D. & Sibley, D. (1988). Regulating without Cost Information: The Incremental Surplus Subsidy Scheme. *International Economic Review*. 29 (2), 297-306
8. Korolkova, E.I. (2000a). Natural Monopoly: Regulation and Competition. // *Economic Journal of the Higher School of Economics*. 4 (2), 235-273 (in Russian).
9. Coase, R. (1990). *The Firm, the Market and the Law*. University of Chicago Press.
10. Vouros, A., & Rozanova, N. *Economics of Industrial Markets*. Moscow: TEIS (in Russian).
11. Cambral L. M. B. (2003). *Organisation of sectoral markets. Introductory course*. Minsk: Novoye znaniye (in Russian).
12. Thompson, A. & Formby, J. (1998). *The Economics of the Firm*. Moscow: Binom (in Russian).
13. Baumol, W. & Bradford, D. (1970). Optimal Departures from Marginal Cost Pricing. *The American Economic Review*. 60 (3), 265-283.
14. Vasev, A. A. (2021). The principle of unrestricted access to electric energy resources. *Perm Legal Almanac*. 4, 233-244 (in Russian).
15. Krasnova, T. A. (2021). Navigator of Natural Monopolies Regulation as a Tool for Digital Transformation of Antimonopoly Legislation Method. *Financial Markets and Banks*. 5, 19-21 (in Russian).
16. Zugumova, Z. M. & Isakova, G. K. (2019). Modern Antitrust Policy Russian Federation. *Regional Problems of Economic Transformation*. 12, 24-29 (in Russian).
17. Fine, B. I. & Repetyuk, S. V. (2021). Consolidation of the Russian Power Grid: Problems and Results. *Russian Economic Development*. 1 (28), 37-49 (in Russian).
18. Kurochkin, V. N. et al. (2021). Application of cross-subsidies in the electric power industry of the exclave region. *Bulletin of the Expert Council*. 2 (25), 70-73 (in Russian).
19. Loktionov, A. L. (2021) State Regulation of Tariff Policy in the System of Housing and Communal

Services of the Russian Federation. *Bulletin of Science and Education*. 2-1, 39-43 (in Russian).

© Rustem M. Nureev, 2021

Received 05.07.2021

Accepted 01.09.2021

# ANALYSIS OF STRATEGIC ISSUES AND PROSPECTS FOR THE IMPLEMENTATION OF FEDERAL PROJECTS OF THE SUBPROGRAMME «INFORMATION STATE» OF THE STATE PROGRAMME «INFORMATION SOCIETY»

Alexey V. Tebekin 

Moscow State Institute of International Relations (University) of the Ministry of Foreign Affairs of Russia, Russia  
E-mail: tebekin@gmail.com

**Abstract.** We carried out the analysis of expert evaluation of the quality of the formulation of federal projects of the subprogramme «Information State» from the position of expected effectiveness of the State Programme «Information Society», implemented within the direction of Innovative Development and Modernisation of the Economy. The study shows that not all the activities of the projects perfectly match the projects' objectives. However, many of the activities of the federal projects are insufficiently targeted and some are quite formal. We assessed the level of loss of capacity to implement federal projects of the «Information Society» subprogramme at the stage of setting goals for the implementation of these projects. We developed the practical recommendations to improve the efficiency and effectiveness of the implementation of federal projects of the «Information State» subprogramme of the State Programme «Information Society».

**Keywords:** analysis, strategic perspectives, implementation, federal projects, subprogramme «Information State», State Programme «Information Society».

**JEL codes:** A10

**For citation:** Tebekin, A. V. (2021). Analysis of strategic issues and prospects for the implementation of federal projects of the subprogramme «information state» of the state programme «information society». *Journal of regional and international competitiveness*, 4(3), 23-42. Retrieved from <http://jraic.com/index.php/tor/article/view/56>

**DOI:** 10.52957/27821927\_2021\_3\_23

## Introduction

The process of creating an information society, where the majority of workers deals with the information (Castells, 2000), continuously accompanies the development of the fifth and sixth technological modes of the economy.

While there is a certain overestimation of the potential of digital technologies (Schwab, 2018) as key components of the information society for economic development (primarily for the national economy), at the same time it should be recognised that informatisation provides a significant breakthrough in the socio-economic development of society as a whole (Tebekin & Egorova, 2019).

Russia's current position in the international ranking of global competitiveness (43rd in the world – between Slovakia and Cyprus) is clearly not appropriate for our country (World rankings in the Global Competitiveness Index, 2020). It has tremendous resources, including human resources working at the very «top» of the information society, i.e. working with information.

But unfortunately, Russia still remains behind the leading countries of the world in terms of the practical realisation of the opportunities offered by the information society (Tebekin, Mitropolskaya-Rodionova & Khoreva, 2019). For example, according to research of the Fletcher School at Tufts University together with Mastercard, in the third edition of the Digital Evolution Scorecard published in 2020, Russia is still among

the countries with a low level of digital development, although it is considered prospective (Fig.1) (The world's most digital countries: the 2020 ranking, 2020)

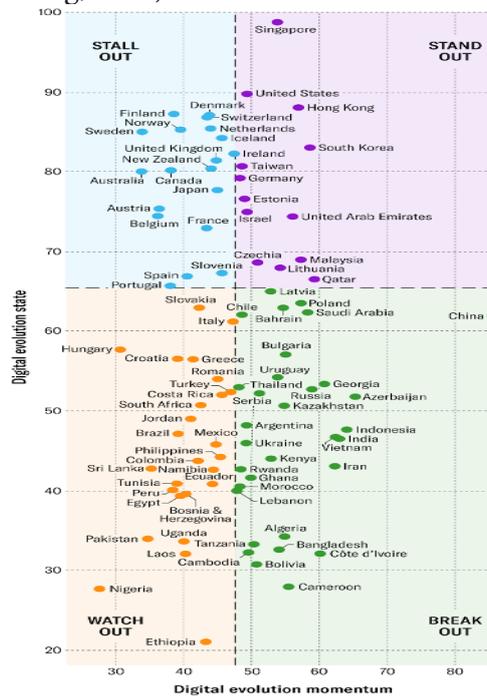


Figure 1. World Digital Development ranking for 2020

Source: Source: The world's most digital countries: the 2020 ranking, 2020

Presidential Decree No. 474 of 21 July 2020 «On the National Development Goals of the Russian Federation for the period until 2030», as well as the preceding Presidential Decree of 7 May 2018 No. 204 «On the National Development Goals of the Russian Federation until 2024» pays much attention to the problems of digital society development (see Fig. 2 and Fig. 3).

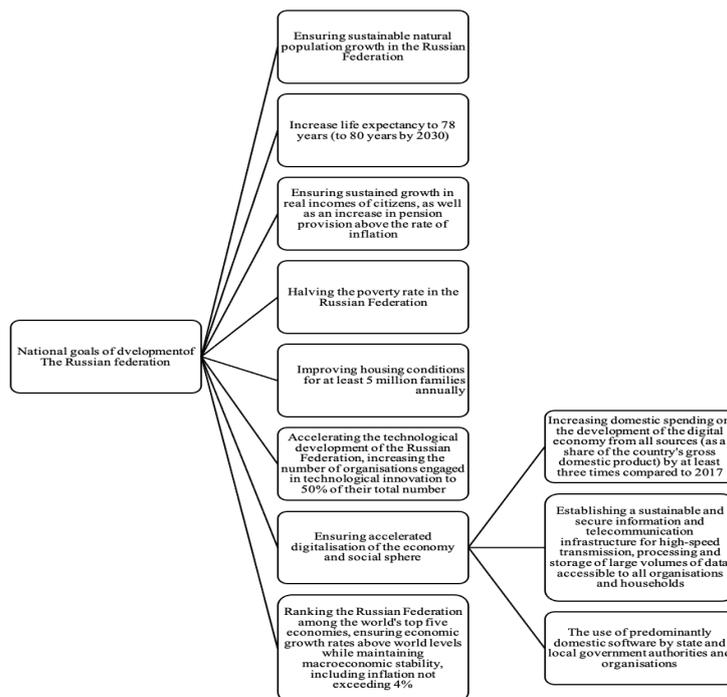
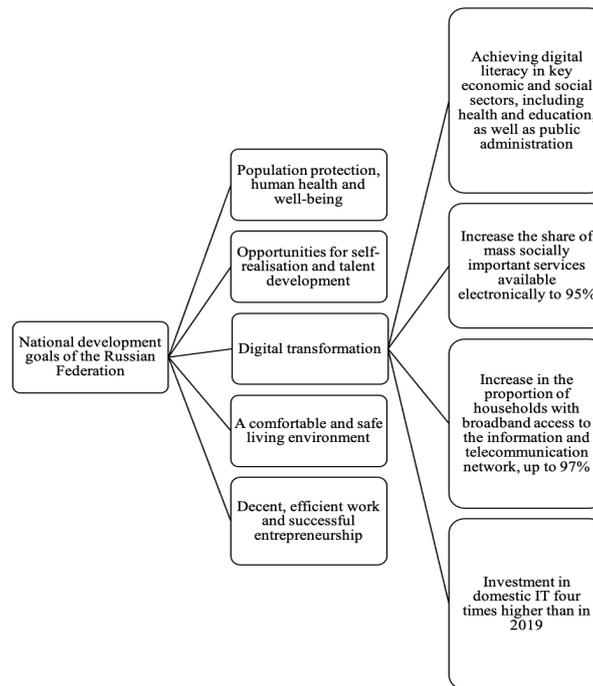


Figure 2. The place of digital society development in the national development goals of the Russian Federation for the period until 2024

Source: Compiled by the author based on the requirements of Presidential Decree No. 204 of 7 May 2018 «On the national goals and strategic objectives for the development of the Russian Federation for the period until 2024»



**Figure 3.** The place of digital society development in the national development goals of the Russian Federation for the period until 2024

Source: Compiled by the author based on the requirements of Presidential Decree No. 474 of 21 July 2020 «On the National Development Goals of the Russian Federation for the period until 2030»

However, the implementation of the previous socio-economic development strategy «Strategy 2020», designed for a 13-year period from 2008 to 2020, has actually failed (Tebekin, 2021). The absence of official reports and assessments confirm it along with the fact that the government, actually a year after the RF Presidential Decree on «National Development Goals of the Russian Federation until 2030» was issued, has not yet presented and submitted «Strategy-2030» aimed at its implementation (Tebekin, 2021). There is an objective necessity to analyze and assess the processes of digital society development in the Russian Federation by referring to the state program.

However, the current transformation from the fifth to the sixth technological mode, accompanied by the current global economic crisis masked by the COVID-19 pandemic, is not only creating problems (Tebekin, Tebekin & Egorova, 2020), but is also opening up new perspectives to overcome them. The one of the main trends in the national economy's recovery from the current economic crisis is the intensive development of digital technologies, which can significantly improve national competitiveness.

This regard, the effective implementation of state programmes, including the «Innovative Development and Modernisation of the Economy», containing the «Information Society» programme, is of great importance.

### **Purpose of the study**

The purpose of the study is to assess the expected effectiveness of the State Programme «Information Society», based on the analysis of the strategic challenges and prospects of implementing federal projects of the «Information Society» subprogramme.

### **Methodological basis of the research**

The methodological basis of the research was formed by the Presidential Decree of May 9, 2017 N 203 «On the Strategy for the Development of the Information Society of the Russian Federation 2017-2030», the Decree of the President of the Russian Federation «On National Development Goals of the Russian Federation for the period up to 2030», the State Programme «Information Society», as well as scientific works

on the problems of information society development and digital transformation by such authors as Akatkin Y.M., Yasinovskaya E.D. (2018), Gurfova R.V., Shumakhova K.S. (2019), Kiseleva L.S., Semenova A.A. (2018), Kovaleva N.N. (2019), Skripkin K.G. (2019), etc.

The methodological basis of the research was also provided by the authors' work on the problems of developing the digital economy and assessing its efficiency (Zegzhda et al., 2019; Tebekin, 2018).

### Main content of the research

The expert assessments of the quality of the presentation of activities revealing the content of were the base of the analysis of strategic problems and prospects of implementation of federal projects of the subprogramme «Information Society» in order to assess the expected effectiveness of the State Programme «Information Society»:

- «Information Infrastructure»
- «Information Security»
- «Digital Technology»
- «Digital Public Administration».

When conducting expert evaluations of federal projects of the subprogramme «Information State» as a typical element of the state programme «Information Society» of the direction «Innovative Development and Economy Modernisation» of the State Programmes of the Russian Federation were carried out:

- qualitative assessment of the presentation of activities reflecting the objectives to be achieved;
- quantitative assessment of the statement of activities reflecting the objectives to be achieved.

Tables 1-4 present the results of the expert assessments of the quality of the presentation of activities reflecting the objectives of the federal projects of the «Information Society» subprogramme.

**Table 1** – Results of expert assessments of the quality of the presentation of the Federal Project OM 4.D2 «Information Infrastructure»

Main activities representing the objectives to be achieved	Assessment of the quality of the presentation of the activity, representing the objectives to be achieved	Scoring the quality of the presentation of the event (scale of 1-5)
Formation of a report with proposals for the implementation of platform solutions at the Ministry of Defence's utilities facilities, including technical requirements for them.	Forming a report proposing a ready-made platform solution with known technical requirements seems unreasonable	2
Coordination of the concept of creating a digital infrastructure platform for inventory, collection and recording of utility data, including utility facilities of the Ministry of Communications of Russia and the Ministry of Defence of Russia;	Concept coordination is a working point that does not require a separate project activity	3
The Ministry of Defence has approved a departmental order to put into pilot operation a digital infrastructure platform for inventory, collection and recording of utility data (implementation of a pilot project);	The event is not concretised enough. There are no requirements for the implementation of the pilot project	3
Make a decision to replicate the pilot project at all facilities of the Russian Ministry of Defence;	This decision does not reflect meaningful actions for the implementation of the Federal Information Infrastructure Project	2

Main activities representing the objectives to be achieved	Assessment of the quality of the presentation of the activity, representing the objectives to be achieved	Scoring the quality of the presentation of the event (scale of 1-5)
Work on the industrial implementation of the digital platform at least at 36,000, 100,000 facilities of the Russian Ministry of Defence (cumulative total)	The event is quite specific	5
Preparing of an annual report of the Russian Ministry of Defence on project implementation to the Government of the Russian Federation	Preparing an annual report on project implementation is an obligation of the project implementer, which does not reflect substantive activities for the implementation of the Federal Project "Information Infrastructure"	2
Formation of the infrastructure of the Russian state segment of the information and telecommunication network "Internet" (RSNet) and connecting more than 80% of RSNet users to promising secure information services, ensuring its development, operation and maintenance in order to ensure reliable interaction of federal executive authorities and executive authorities the subjects of the Russian Federation with the information and telecommunication network "Internet" through RSNet	The event is quite specific	5
Providing a system of distributed situational centres for the highest state authorities of the Russian Federation	The activity corresponds to the declared item, but not exactly	3
Establishment of a secure digital environment for audiovisual interaction between state authorities, organisations and citizens at the federal, regional and municipal levels	The activity corresponds to the declared item, but not exactly	4
Providing for the legal protection and management of intellectual property rights in the digital environment (creation of digital platforms)	The activity corresponds to the stated item, but is not specific and does not fully reflect substantive actions for the implementation of the Federal Project "Information Infrastructure".	3
Making data storage and processing services available throughout Russia to citizens, businesses and authorities	The activity corresponds to the stated item, but is not specific and does not fully reflect substantive actions for the implementation of the Federal Project "Information Infrastructure".	3

*Alexey V. Tebekin*  
ANALYSIS OF STRATEGIC ISSUES AND PROSPECTS...

Main activities representing the objectives to be achieved	Assessment of the quality of the presentation of the activity, representing the objectives to be achieved	Scoring the quality of the presentation of the event (scale of 1-5)
Establishment of a certification system for digital data processing that promotes sustainability, security and cost-effectiveness	The activity corresponds to the declared item, but not exactly The levels of requirements for which particular certification systems can be designed can differentiate significantly	3
Improving technical regulation of data centres to ensure sustainability, security and cost-effectiveness of their operation	The activity corresponds to the declared item, but not exactly The degree of improvement is not indicated.	3
Providing storage and processing of information established by public authorities and local government in a public unified cloud platform on a service model	The activity corresponds to the declared item, but not exactly	4
Transfer of information systems of federal executive authorities to a public unified cloud platform on a service model	The activity corresponds to the declared item, but not exactly	4
Providing services to socially important objects on providing access to information systems and to the information and telecommunication network "Internet", on data transmission and protection, on ensuring restriction of access to information which is prohibited for distribution in the Russian Federation and to information harmful to health and development of children, as well as on monitoring and ensuring communication security during connection and provision of access to systems and networks.	The activity corresponds to the declared item, but not exactly	4
Total average score		3.31

*Source: composed by the author*

**Table 2** - Results of expert assessments of the quality of the presentation of the OM 4.D4 Federal Project «Information Security»

Main activities representing the objectives to be achieved	Assessment of the quality of the presentation of the activity, representing the objectives to be achieved	Scoring the quality of the presentation of the event (scale of 1-5)
Establishment of a distributed system for managing and monitoring information security in the Russian State segment of the Internet	The activity corresponds to the declared item, but not exactly	4

Main activities representing the objectives to be achieved	Assessment of the quality of the presentation of the activity, representing the objectives to be achieved	Scoring the quality of the presentation of the event (scale of 1-5)
Formation of the infrastructure of the Russian state segment of the information and telecommunication network «Internet» (RSNet) and ensuring its development, exploitation and maintenance in order to ensure protected interaction of federal executive authorities of subjects of the Russian Federation with the information and telecommunication network «Internet» through RSNet;	The activity corresponds to the declared item	5
Approving the acts establishing the individual components of the system	The activity does not fully correspond to the content of the stated item	2
Total average score		3.67

Source: composed by the author

**Table 3** – Results of expert assessments of the quality of the presentation of the Federal Project OM 4.D5 «Information Technology»

Main activities representing the objectives to be achieved	Assessment of the quality of the presentation of the activity, representing the objectives to be achieved	Scoring the quality of the presentation of the event (scale of 1-5)
Implementation of small enterprise projects for the development, application and commercialisation of cut-through digital technologies	The activity corresponds to the declared item, but not exactly	3
Providing expert support for a comprehensive system of state support for digital economy projects with optimal technological solutions in priority sectors of the economy and social sphere	The activity corresponds to the declared item, but not exactly	4
Development and approval of at least 7 roadmaps for the evolution of promising cut-through technologies (sub-technologies) based on the needs of leading companies in the digital economy sector	The activity corresponds to the declared item, but not exactly	3
To identify the requirements of economic sectors, domestic companies and organisations for expert support in research and development in the areas of cut-through digital technology in the formation of new products and services, and to prepare a national report on progress in building a digital economy in the Russian Federation based on the development of research competencies and technological advances	The activity corresponds to the declared item, but not exactly	4
Development and approval of procedures for the selection of leading research centres and support measures for leading research centres in the areas of cut-through digital technology development	The activity corresponds to the declared item, but not exactly, there are no criteria This item is not	2

*Alexey V. Tebekin*  
ANALYSIS OF STRATEGIC ISSUES AND PROSPECTS...

Main activities representing the objectives to be achieved	Assessment of the quality of the presentation of the activity, representing the objectives to be achieved	Scoring the quality of the presentation of the event (scale of 1-5)
	about the development of digital technology, but about the effective reporting of officials	
Identify lead research organisations for cut-through technologies in the digital economy sectors	The activity does not fully correspond to the stated item and is not specific. This item is not about the development of digital technology, but about the effective reporting of officials	2
Total average score		3.00

Source: composed by the author

**Table 4** - Results of expert assessments of the quality of the presentation of the Federal Project OM 4.D6 «Digital Public Administration»

Main activities representing the objectives to be achieved	Assessment of the quality of the presentation of the activity, representing the objectives to be achieved	Scoring the quality of the presentation of the event (scale of 1-5)
Improving the functionality of personal accounts in the federal state information systems «Single portal of state and municipal services (functions)», «Unified system of identification and authentication in the infrastructure that provides information and technological interaction of information systems used to provide state and municipal services in electronic form» for legal entities, individuals and individual entrepreneurs in terms of the availability of new opportunities to receive public services. It allows to control the performance of state functions along with the providing of the development of the national segment of the Russian Federation as a part of the integrated information system of the Eurasian Economic Union in order to connect all federal executive authorities for launching of common processes of the member states of the Eurasian Economic Union	The activity corresponds to the declared item, but not exactly	3
Selecting and implementing support for national infrastructure and sectoral digital development projects in the Eurasian Economic Union	The activity corresponds to the declared item, but not exactly, there are no criteria	4

Main activities representing the objectives to be achieved	Assessment of the quality of the presentation of the activity, representing the objectives to be achieved	Scoring the quality of the presentation of the event (scale of 1-5)
Ensuring the long-term archival storage of electronic documents with preserving their legal value for federal and regional public authorities	The activity corresponds to the declared item	5
Implementation of interdepartmental legally significant electronic document circulation with the use of an electronic signature, based on common infrastructure, technological and methodological solutions, in the activities of public authorities and local authorities, as well as their subordinate organisations	The activity corresponds to the declared item	5
Ensure automation of control (supervision) officer management to generate different types of inspector assignments as a result of risk analysis based on big data collected on inspection sites	The activity corresponds to the declared item, but not exactly	4
Ensure industrial internet of things data collection, analysis and use on the basis of the unified state industrial internet of things platform with the use of automatic object performance measurement devices and internal control systems by supervised entities	The activity corresponds to the declared item, but not exactly	4
Establishment of a database of normative legal acts (federal, regional and municipal) of the Russian Federation available in the system of interdepartmental electronic interaction in real time	The activity corresponds to the declared item, but not exactly	4
Development, implementation and functioning of the federal state information system «Unified Information System for Personnel Management in the State Civil Service of the Russian Federation» (hereinafter, the Unified System), including the provision and application of the Unified System in public authorities and their subordinate organisations to support the work of personnel services, personnel record-keeping, and the storage of electronic personnel files	The activity corresponds to the declared item, but not exactly	4
Provide the development and functioning of a unified inter-agency information and statistical system in order to unify statistical resources, facilitate their effective use in management decisions and forecasting, provide access to official statistical information, make this information available, accessible and open	The activity corresponds to the declared item, but doubles the functions of the Rosstat	5
Implementation of digital technologies and platform solutions in the areas of public administration and public services, including the benefit of the population, small and medium-sized enterprises, individual entrepreneurs	The activity corresponds to the declared item, but not exactly, there are no techniques	3

*Alexey V. Tebekin*  
ANALYSIS OF STRATEGIC ISSUES AND PROSPECTS...

Main activities representing the objectives to be achieved	Assessment of the quality of the presentation of the activity, representing the objectives to be achieved	Scoring the quality of the presentation of the event (scale of 1-5)
Establishment and implementation of a set of information systems to support decision-making by the highest levels of government using public opinion research technologies	The activity corresponds to the declared item, but not exactly, there are no system criteria	3
Establishment of a united digital ecosystem of legal informatization in Russia, has a single format of information and legal resources of authorities at all levels	The activity corresponds to the declared item	5
The number of State, local authorities, State and municipal institutions and other organisations that perform publicly significant functions, connected to the infrastructure of the Common Network of Citizens' Appeals and implementing a single mechanism for processing the results of the consideration of citizens' appeals will be 20,000 units	The activity corresponds to the declared item and has the specific type	5
Establishment of 12 segments (systems) of a single digital platform to support the activities of the President of the Russian Federation, the Prime Minister of the Russian Federation, the Chambers of the Federal Assembly of the Russian Federation and the Security Council of the Russian Federation, as well as ensuring unified architectural management of the organization of the development, operation and information security of state information systems created to support the functioning of the single digital platform	The activity corresponds to the declared item and has the specific type	5
Providing of socially important, including licensing, state (municipal) services, government and other services in digital form, including educational and healthcare spheres, in accordance with the target model (without the need for personal visits to state authorities and other organisations, using a registry model, online (automatic mode), proactively)	The activity corresponds to the stated item, but not specifically, it is not clear what «provision» is in this context	3
Establishment of a national data management system	The activity corresponds to the stated item, but is not specific, not only the characteristics but also the goals of the system are not specified	3
Providing for the implementation of a single digital feedback window, including appeals, complaints, functions, services, using public opinion research technology and the formation of feedback mechanisms	The activity corresponds to the declared item	4

Main activities representing the objectives to be achieved	Assessment of the quality of the presentation of the activity, representing the objectives to be achieved	Scoring the quality of the presentation of the event (scale of 1-5)
Implementation of interdepartmental legally significant electronic document circulation with the use of an electronic signature, based on common infrastructure, technological and methodological solutions, in the activities of public authorities and local authorities, as well as their subordinate organisations	The activity corresponds to the declared item	5
Ensuring the long-term archival storage of electronic documents with preserving their legal value for federal and regional public authorities	The activity corresponds to the stated item, but not specifically, it is not clear what «provision» is in this context	3
National coordination and expert support for the implementation of the Digital Agenda of the Eurasian Economic Union	The activity corresponds to the stated item, but not specifically, it is not clear what «provision» is in this context	3
Analysis and correlation of information on data management in selected authorities in order to develop unified requirements for their data management, development of unified requirements for data management in information resources of authorities, analysis and correlation of information on implementation of unified requirements for data management of authorities	The activity corresponds to the declared item	5
Providing the functions of the Project Office for the implementation of the national programme «Digital Economy of the Russian Federation» in accordance with the functional structure of the management system for the realization of the national programme	The activity corresponds to the declared item, but not exactly	5
Providing that the federal state information system «Unified Register of Inspections» actually records damage to legally protected assets	The activity corresponds to the declared item	5
Conducting proactive crime prevention and prosecutorial response activities;	The activity corresponds to the declared item, but not exactly	4
Providing the possibility of obtaining and analysing data through the information systems of the prosecution service of the Russian Federation	The activity corresponds to the stated item, but not specifically, it is not clear what «provision» is in this context	3
Establishment of a sustainable and secure infrastructure in the prosecution service of the Russian Federation	The activity corresponds to the declared item	5

*Alexey V. Tebekin*  
ANALYSIS OF STRATEGIC ISSUES AND PROSPECTS...

Main activities representing the objectives to be achieved	Assessment of the quality of the presentation of the activity, representing the objectives to be achieved	Scoring the quality of the presentation of the event (scale of 1-5)
Increasing the efficiency of public administration in the field of fire and water safety	The activity corresponds to the declared item, but not exactly, there are no effectiveness criteria	3
Development of mechanisms for the provision of public services (functions) and information to citizens and organisations using remote technologies and modern information and telecommunication technologies in the field of fire safety and safety of people on water	The activity corresponds to the stated item, but not specifically, it is not clear what «provision» is in this context	3
Increasing the efficiency, transparency and publicity of control and oversight activities in the field of fire safety and safety of people on water	The activity corresponds to the declared item, but not exactly, there are no effectiveness criteria	3
Providing better design and development of sectoral information systems, new information technologies and platforms through the established methodological framework for information and telecommunication technology cost planning; automation of IT coordination processes, including ensuring fast tracking of the operability of information systems of state authorities	The activity corresponds to the stated item, but not specifically, it is not clear what ensuring quality improvement» is in this context	2
Providing the creation of government information systems cost reductions for the through replication of existing solutions, as well as regular sectoral expertise making as part of informatisation coordination.	The activity corresponds to the declared item, but is not exact, no principles or specific proposals to reduce costs are given	2
Implementation of a standardized automated workplace for public employee based on domestic software (equipping public authorities with a standardized automated workplace public employee)	The activity corresponds to the declared item	5
Implementation of the transition to the use of a standardized automated workplace of a state employee by public authorities	The activity corresponds to the declared item	5
Implementation of the transition plan to domestic office and information security software	The activity corresponds to the declared item, but not exactly	3
Providing a growing market share of software for state and municipal needs held by domestic software developers	The activity corresponds to the declared item, but not exactly	3
Reducing the dependence of public authorities on foreign software	The activity corresponds to the declared item, but not exactly, there are no criteria	3

Main activities representing the objectives to be achieved	Assessment of the quality of the presentation of the activity, representing the objectives to be achieved	Scoring the quality of the presentation of the event (scale of 1-5)
Establishing an ecosystem for the digital economy of the Russian Federation that promotes the competitiveness of the Russian economy by creating institutional and infrastructural conditions, including unified activity management systems and platforms for digital services and services	The activity corresponds to the declared item, but not exactly	4
Establishing a system of expert and analytical, organisational and methodological support for implementing the national programme «Digital Economy of the Russian Federation», ensuring the effective performance of the functions of the federal executive authority (in the national programme)	The activity corresponds to the declared item, but not exactly	4
Formation and actualisation of a system of priorities for the development of Russia's digital economy, in terms of competitive advantages and resources	The activity corresponds to the declared item, but not exactly	3
Assessing the contribution of the digital economy to economic development of Russia	The activity corresponds to the declared item, but not exactly	3
Establishment of a system of organisational, methodological and expert analytical actions to measure the development of the digital economy	The activity corresponds to the declared item	5
Development of a methodology for statistical monitoring and measurement of digital economy development, including measurement of the effects of digital transformation of economic sectors and the social sphere	The activity corresponds to the declared item, but not exactly	4
The development of a single portal for public services and enabling users of the information and telecommunications network «Internet» to access information established by public authorities, local authorities and state extra-budgetary funds within their authority, as well as other publicly accessible information through the a single window model, forming a unified digital environment for public Internet resources, including by using a single standard of visual and graphic design and content tools	The activity corresponds to the declared item, but not exactly	4
Development and exploitation of information systems and services that are part of the e-government infrastructure	The activity corresponds to the declared item, but not exactly	3
Establishment of a firearms trading control and security services management system based on domestic technology to process large volumes of data, enabling a single electronic document management system for recording	The activity corresponds to the declared item	5

*Alexey V. Tebekin*  
ANALYSIS OF STRATEGIC ISSUES AND PROSPECTS...

Main activities representing the objectives to be achieved	Assessment of the quality of the presentation of the activity, representing the objectives to be achieved	Scoring the quality of the presentation of the event (scale of 1-5)
weapons circulation and electronic interaction in the control of production, storage, movement, sale and disposal of weapons, as well as electronic interaction and document management in the provision of security services		
Improvement of RF's the public audit system based on the introduction of digital technologies and platform solutions for the external public audit (control) process	The activity corresponds to the declared item, but not exactly, there are no criteria for improvement	4
Providing digital services to electoral subjects	The activity corresponds to the declared item, but not exactly	4
Establishment and functioning of the infrastructure of a single platform for organising and carrying out the activities of the national programme «Digital Economy of the Russian Federation»	The activity corresponds to the declared item	5
Finalisation and exploitation of the Federal Register of State and Municipal Services (Functions), including a cloud-based system for the constituent entities of the Russian Federation	The activity corresponds to the declared item, but not exactly	4
Development, implementation and exploitation of a cloud-based digital platform to provide public (municipal) services and services, including the E-form	The activity corresponds to the declared item	5
Development of a methodological foundation for a unified technological architecture for information systems of state executive authorities	The activity corresponds to the declared item	5
Development of a system of crossdepartmental electronic interaction on the territory of the constituent entities of the Russian Federation	The activity corresponds to the declared item, but not exactly	3
Development of an information system to enable citizens and businesses to receive comprehensive public services in the field of agriculture, grouped according to the main life situations in the field of state support and ensure its functioning	The activity corresponds to the declared item	5
Establishment of an information resource on registration and migration registration	The activity corresponds to the declared item	3
Optimising information storage and use processes	The activity corresponds to the declared item, but not exactly	3
Developing the conditions for transition to the target IT architecture model	The activity corresponds to the declared item, but not exactly	3

Main activities representing the objectives to be achieved	Assessment of the quality of the presentation of the activity, representing the objectives to be achieved	Scoring the quality of the presentation of the event (scale of 1-5)
Establishment of a datamart for cross-departmental electronic interaction	The activity corresponds to the declared item, but not exactly	3
Ensuring cross-departmental electronic interaction	The activity corresponds to the declared item, but not exactly	3
Reduced processing time for requests from public authorities and organisations	The activity corresponds to the declared item, but not exactly	3
Reducing the number of rejections of information	The activity corresponds to the declared item, but not exactly	3
Ensuring the transition to a blockchain model of public service delivery	The activity corresponds to the declared item, but not exactly	3
Ensuring the transition to public services in the form of an electronic document	The activity corresponds to the declared item, but not exactly	3
Optimisation of interactive application forms on the Single Portal of State and Municipal Services	The activity corresponds to the declared item, but not exactly	3
Reducing the labour intensity of the functions and powers of the Ministry of Communications of Russia by re-engineering and automating processes	The activity corresponds to the declared item, but not exactly	3
Establishment, implementation, development and exploitation of the digital platform of the automated information system of Rostekhnadzor for control and supervision of compliance with legislative requirements at dangerous facilities, electric power facilities, construction complex, hydraulic structures, nuclear facilities;	The activity corresponds to the declared item	5
Reducing the risk of accidents at facilities supervised by Rostekhnadzor	The activity corresponds to the declared item, but not exactly	4
Ensuring the development and maintenance of the data bank of enforcement documents, their registration by courts and other authorities, automatic provision of information from the data bank to employers and banks, implementation of a service for operations with the register of enforcement documents, optimisation of the form of public service	The activity corresponds to the declared item	5

Main activities representing the objectives to be achieved	Assessment of the quality of the presentation of the activity, representing the objectives to be achieved	Scoring the quality of the presentation of the event (scale of 1-5)
Improvement and exploitation of the information system of the Federal Service for Supervision of Education and Science and its subsystems in order to achieve the target of the «University Admission Online» superservice	The activity corresponds to the declared item	5
Introducing digital technology and platform solutions in social services	The activity corresponds to the declared item, but not exactly	3
Total average score		3.82

*Source: composed by the author*

### Results and conclusions

Thus, the results of expert assessments of the quality of presentation of measures reflecting the objectives of the federal projects «Information Infrastructure», «Information Security», «Digital Technologies» and «Digital Public Administration» of the subprogramme «Information State» as a model element of the State Programme «Information Society» (with a budget allocation of over 2 trillion rubles) of the direction «Innovative Development and Economy Modernisation» of State Programmes of the Russian Federation, presented in Tables 1-4, allows us to consider as follows.

At first, the research process has established that already at the stage of describing the activities reflecting the objectives to be achieved of the federal projects of the «Information Society» subprogramme, there is a significant reduction of capacity to achieve the objectives (Table 5) of 36.5% (i.e. over a third of capacity), and therefore a proportional reduction in the efficiency of the resources involved.

**Table 5** – Synthesis of the results of expert evaluations of the quality of the presentation of activities reflecting the objectives of the federal projects of the «Information Society» subprogramme

Subprogramme code and project title	Average score of the expert evaluation of the quality of the presentation of the event (scale of 1-5)	Subprogramme total integral score
OM 4. D2 Federal Project «Information Infrastructure»	2.0	3.175
OM 4. D4 Federal Project «Information Security»	3.08	
OM 4.D5 Federal Project «Digital Technology»	3.8	
OM 4.D6 Federal Project «Digital Government»	3.82	

*Source: composed by the author*

The largest reduction in capacity is seen in the Federal Project «Information Infrastructure» (80% reduction).

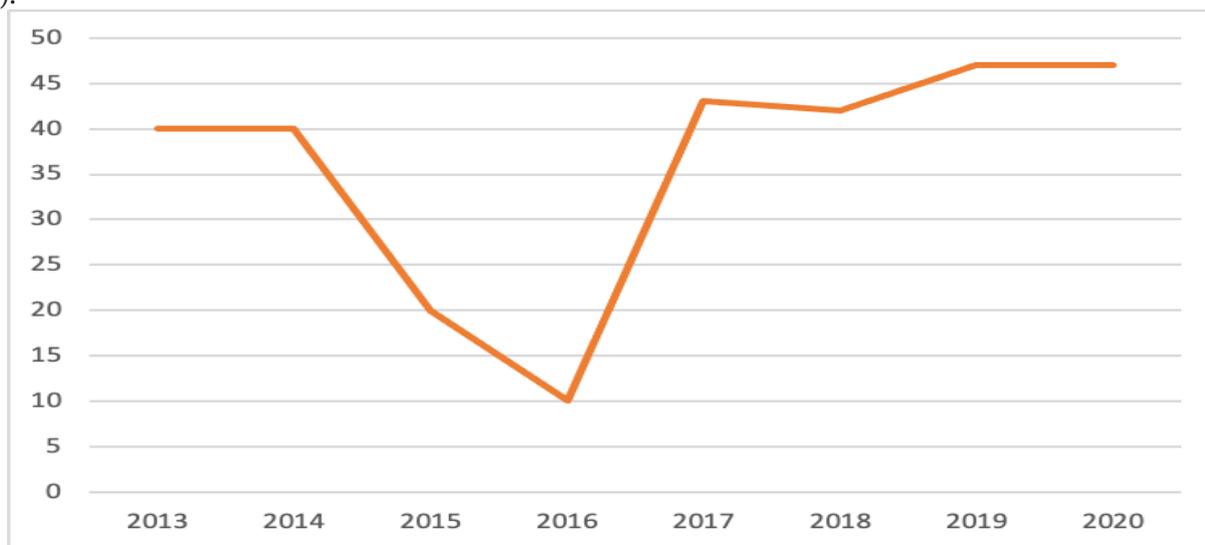
Secondly, it was found that the main problems with the quality of the presentation of activities reflecting the objectives of the federal projects of the «Information Society» subprogramme are related to their insufficient level of specificity and the absence (in the overwhelming majority of cases) of quantitative values reflecting the required level of achievement of the goals and objectives set. This could also lead to inefficient use of the budget.

Thirdly, it is shown that there is an overlap in a number of activities of federal projects under the

subprogramme between the ministries responsible for implementation (most notably the Federal Project «Information Infrastructure»). These facts clearly demonstrate sources of inefficiency in the use of the subprogramme's funds.

Fourthly, a number of points in the Federal Project «Digital Technology» are not about developing digital technology but about the effective reporting of officials.

Fifthly, the rather low efficiency of potential use in the implementation of the State Programme «Information Society», which confirms the expert assessments, is evidenced by the fact that during the 8 years of its implementation Russia has never moved up in the international ranking on the IT development index (Fig. 4).



**Figure 4.** Position of the Russian Federation in the international ranking on the IT Development Index

Source: The Russian Federation Government Decree of 01.05.2021 N 504-19

Sixthly, the example of the analysis of federal projects of the «Information State» Subprogramme of the State Programme «Information Society» allows us to mention as recommendations for increasing its efficiency the need to follow clearly the requirements of the Federal Law «On Strategic Planning in the Russian Federation».

This refers primarily to the principles of strategic planning such as:

- the principle of unity and integrity, (the subprogramme should not be a patchwork, as is the case in federal projects of the «Information Society» subprogramme), consistent with the programme-approach principle;

- the principle of continuity and sustainability (development and improvement activities are often found in federal projects of the «Information Society» subprogramme, but it is not clear what they will be);

- the principle of transparency (if the planning process of federal projects of the «Information Society» subprogramme were public, many of these disadvantages would be eliminated, but the officials responsible for this subprogramme (as well as other subprogrammes and programmes) are not interested in detailing expected indicators that require demonstration of very particular results), and this is a question of the responsibility of strategic planners

- the principle of measurability of objectives (using mainly quantitative and evaluation criteria indicators);
- other.

It is thought that strict adherence to the principles of strategic planning will substantially reduce the reduction of potential in the implementation of federal (regional, municipal) projects, subprogrammes, programmes and areas of state programmes of the Russian Federation in their totality.

## References

1. Akatkin, Y. M., & Yasinovskaya, E. D. (2018). *Digital Transformation of Public Administration. Data*

*centricity and semantic interoperability*. M.: DPK Press (in Russian).

2. The Russian Federation Government Decree of 01.05.2021 N 504-19. "On amendments to the State program of the Russian Federation "Information Society". Retrieved from <http://publication.pravo.gov.ru/Document/View/0001202104100004> (in Russian).

3. Gurfova, R. V., & Shumakhova, K. S. (2019). Development of information society in Russia. *Nauchniye izvestiya*, (15), 36-39 (in Russian).

4. Novye izvestiya. Voronin, Yu. (2020). *Movement without goals: why the 2020 Strategy failed*. Retrieved from <http://newizv.ru/article/general/21-11-2019/dvizhenie-bez-tseley-pochemu-provalilas-strategiya-2020> (in Russian).

5. Nakanune.ru. (2020). *Groundhog Day: Strategy 2020 successfully defeated - are national projects next?* Retrieved from <http://www.nakanune.ru/articles/116644/> (in Russian).

6. Zegzhda, P. D., Suprun, A. F., Anisimov, V. G., Tebekin, A. V., & Anisimov, E. G. (2019). Methodical approach to construction of models of forecasting of indicators of properties of information security systems. *Problemy informacionnoj bezopasnosti. Komp'yuternye sistemy*, (4), 45-49 (in Russian).

7. Castells, M. (2000). *The Information Age: Economy, Society and Culture*. O.I. Shkaratan (Ed.). M.: GU VHSE (in Russian).

8. Kiseleva, L. S., & Semenova, A. A. (2018). Digital transformation of society: tendencies and perspectives. *Problemy deyatel'nosti uchenogo i nauchnich kollektivov*, (4), 157-169 (in Russian).

9. *The concept of Russia's development up to 2020 has proven to be unrealistic. Why the trajectories of the 2008 national goals and the country's actual development have diverged*. Retrieved from <http://www.rbc.ru/economics/02/11/2019/5db946fb9a794742bc0d5b68> (in Russian).

10. Tebekin, A. V., Valiavsky, A. Y., Lukoshevichus, G. A., Maniushis, A. Y., & Petrov, V. S. (2020). *Fundamentals of anti-crisis management*. Moscow: Rusajns (in Russian).

11. Narodnyj zhurnalist. (2020). *Total failure of Strategy 2020. Did the population get in the way?* Retrieved from <http://narzur.ru/polnyjj-proval-strategi-2020-naselenie-pomeshalo/> (in Russian).

12. RF State Programs Portal. (2021). Retrieved from <http://programs.gov.ru> (in Russian).

13. Problems and challenges of digital society: trends in legal regulation of digital transformation. (2019). *Sbornik nauchnich trudov po materialam 1 Mezhdunarodnoy nauchno-prakticheskoy konferencii. (Saratov, 17-18 oktyabrya 2019 g.)*. N. N. Kovalevoj (Ed.). Saratov: Izd-vo FGBOU VO «Saratovskaya gosudarstvennaya yuridicheskaya akade-miya».

14. Order of the Government of the Russian Federation of November 17, 2008 N 1662-r "On the Concept of long-term socio-economic development of the Russian Federation for the period until 2020". Retrieved from <http://government.ru/info/6217/> (in Russian).

15. Gumanitarnyj portal. (2020). *World rankings in the Global Competitiveness Index*. Retrieved from <http://gtmarket.ru/ratings/global-competitiveness-index> (in Russian).

16. HBR. (2020). *The world's most digital countries: the 2020 ranking*. Retrieved from <http://hbr-russia.ru/innovatsii/trendy/853688> (in Russian).

17. Skripkin, K. G. (2019). Potential and problems of the information society development strategy. *Cifrovaya ekonomika*, (2), 78-86 (in Russian).

18. *The media has learned about the formation of Russia's development strategy worth 5.6 trillion rubles*. (2021). Retrieved from <https://www.rbc.ru/economics/08/06/2021/60beff349a79474b14e79bdb> (in Russian).

19. KP. Belyakov, E. (2020). *The Land of Failed Programmes: Why did the 2020 Strategy Fail?* Retrieved from <http://www.kp.ru/daily/27053.7/4119288/> (in Russian).

20. Expert. Serebryanyj, I. *Strategy 2030: no matter how you sit down...* Retrieved from <http://expert.ru/2021/05/17/strategiya-2030-kak-ni-sadis/> (in Russian).

21. Tebekin, A. V. (2021). Looking forward as the basis for strategic development of the national economy. *Zhurnal issledovanij po upravleniyu*, 7(3), 3-11 (in Russian).

22. Tebekin, A. V. (2021). Looking back as the foundation for the strategic development of controlled socio-economic systems. *Vestnik Tverskogo gosudarstvennogo universiteta. Seriya: Ekonomika i upravlenie*,

(2), 123-137 (in Russian).

23. Tebekin, A. V. (2021). A bottom-up view of the strategy for the socio-economic development of the Russian Federation until 2030 in terms of the prospects for achieving the national goal "Preservation of the population, health and well-being of people. *Zhurnal ekonomicheskikh issledovaniy*, 7(3), 3-21 (in Russian).

24. Tebekin, A. V. (2021). Opportunities to improve the efficiency of the provision of services of logistics service systems (1PL – 5PL) as a result of the introduction of digital technologies. *Marketing i logistika*, (1), 63-72 (in Russian).

25. Tebekin, A. V. (2018). To the question about the index of digitization, characterizing the processes of socio-economic development in the Russian Federation. *Vestnik Moskovskogo finansovo-uridicheskogo universiteta*, (3), 153-164 (in Russian).

26. Tebekin, A. V. (2020). Methods for evaluating the effectiveness of implementing digital economy technologies. *Factory razvitiya ekonomiki Rossii. Sbornik trudov Mezhhregional'noj nauchno-prakticheskoy konferencii*. M.V. Curkan (Ed.). (pp. 57-66). Tver': Tverskoj gosudarstvennyj universitet (in Russian).

27. Tebekin, A. V. (2020). About the depth of the crisis in 2020 for the world and national economy and ways of out of it. *Zhurnal ekonomicheskikh issledovaniy*, 6(2), 52-71 (in Russian).

28. Tebekin, A. V. (2019). Outlooks and risks in digitalization of further training. *Professional'noe obrazovanie v sovremennom mire*, 9(1), 2558-2566 (in Russian).

29. Tebekin, A. V. (2006). *Management of innovation and investment in the field of Information technologies*. Moscow (in Russian).

30. Tebekin, A. V. (2019). Formation of Criteria for Evaluating the Efficiency of Innovation in the Digital Economy. *Razvitie sovremennoj ekonomicheskoy nauki: problemy, tendencii, perspektivy. Materialy Mezhdunarodnoj nauchnoj konferencii. 2019* (pp. 302-307). M.: Odincovskij filial MGIMO MID Rossii (in Russian).

31. Tebekin, A. V., Anisimov, E. G., Tebekin, P. A., & Egorova, A. A. (2021). Analysis of signs of industrial revolution in Industry 4.0 initiative. *Transport Business of Russia*, (2), 13-21 (in Russian).

32. Tebekin, A. V., & Egorova, A. A. (2019). Digital economy as a source of economic growth. *Zhurnal ekonomicheskikh issledovaniy*, 5(6), 3-9 (in Russian).

33. Tebekin, A. V., Mitropolskaya-Rodionova, N. V., & Khoreva, A. V. (2019). The analysis of the development of innovative processes in the sphere of digital economy. *Transport business of Russia*, (5), 3-6 (in Russian).

34. Tebekin, A. V., & Petrov, V. S. (2021). Possibilities of digital transformation to improve efficiency of money management in Russia. *Zhurnal ekonomicheskikh issledovaniy*, 7(2), 48-53 (in Russian).

35. Tebekin, A. V., & Petrov, V. S. (2020). Ways to improve economic management through the use of digital financial assets. *Zhurnal ekonomicheskikh issledovaniy*, 6(4), 55-63 (in Russian).

36. Tebekin, A. V., & Seryakov, G. N. (2018). Methodological bases of a research of the directions and development tools of technological ways. *Transport business of Russia*, (4), 15-17 (in Russian).

37. Tebekin, A. V., Tebekin, P. A., & Egorova, A. A. (2020). Analysis of the prospects for the development of the national economy when introducing end-to-end digital technologies. *Zhurnal ekonomicheskikh issledovaniy*, 6(4), 3-18 (in Russian).

38. Tebekin, A. V., Tebekin, P. A., & Egorova, A. A. (2020). Choosing an approach to forming a strategy that provides the way out of the global socio-economic crisis in 2020. *Teoreticheskaya ekonomika*, (5), P. 44-67. Retrieved from [https://drive.google.com/file/d/1aYRfohueItFQGNeaTW7xQb\\_eRuotagpS/view](https://drive.google.com/file/d/1aYRfohueItFQGNeaTW7xQb_eRuotagpS/view) (in Russian).

39. Tebekin, A. V., Tebekin, P. A., & Egorova, A. A. (2020). Strategic impact of the sixth technological mode on scientific and production, economic, social and political aspects of global and national economic development. *Epomen*, (49), 85-100 (in Russian).

40. Tebekin, A. V., & Horeva, A. V. (2021). Assessment of the potential or the development of logistics systems as a result of the introduction of digital technologies. *Zhurnal issledovaniy po upravleniyu*, 7(2), 51-62 (in Russian).

41. Decree of the President of the Russian Federation N 204 of May 7, 2018 "On national goals and strategic

*objectives of the development of the Russian Federation for the period up to 2024*". Retrieved from <http://www.kremlin.ru/acts/bank/43027> (in Russian).

42. *Decree of the President of the Russian Federation of 9 May 2017. N 203 "On the Strategy for the Development of Information Society in the Russian Federation for 2017 - 2030"*. Retrieved from <http://base.garant.ru/71670570/> (in Russian).

43. *Presidential Decree No. 474 of 21 July 2020 "On the National Development Goals of the Russian Federation for the period until 2030"*. Retrieved from <http://publication.pravo.gov.ru/Document/View/0001202007210012>

44. *The Russian Federation Government Law of June 28, 2014. N 172-FZ "On strategic planning in the Russian Federation"*. Retrieved from [http://www.consultant.ru/document/cons\\_doc\\_LAW\\_164841/](http://www.consultant.ru/document/cons_doc_LAW_164841/) (in Russian).

45. Schwab, K. (2018). *The Fourth Industrial Revolution*. M.: Eksmo (in Russian).

© Alexey V. Tebekin, 2021

Received 10.08.2021

Accepted 03.09.2021

# THE ROLE OF THE MOSCOW AGGLOMERATION IN THE SOCIO-ECONOMIC DEVELOPMENT OF CENTRAL RUSSIAN REGIONS

Alla B. Berendeeva 

Ivanovo State University, Russia  
E-mail: abab60@mail.ru

Olga O. Korobova 

Ivanovo State University, Russia  
E-mail: olga-korobova@list.ru

**Abstract.** The paper presents comparative analysis of strategies of socio-economic development of 4 subjects of Russia — Vladimir, Ivanovo, Ryazan, and Yaroslavl regions, development scenarios, taking into account the influence of the Moscow agglomeration. The analysis includes Strengths, Weaknesses, Opportunities, and Threats associated with the proximity of the regions to Moscow and the Moscow region, as reflected in the SWOT analysis of the regions. It reflects the advantages of implementing interregional infrastructure projects for each of the regions.

**Keywords:** regional competitiveness, integration resource of the region, strategy of social and economic development of the region, strategy scenarios, SWOT analysis, Moscow, Moscow region, Moscow agglomeration, Vladimir region, Ivanovo region, Ryazan region, Yaroslavl region.

**JEL codes:** C82, M10, O18, R50, R58

**For citation:** Berendeeva, A. B., & Korobova, O. O. (2021). The role of the moscow agglomeration in the socio-economic development of central russian regions. *Journal of regional and international competitiveness*, 4(3),43-56. Retrieved from <http://jraic.com/index.php/tor/article/view/57>

**DOI:** 10.52957/27821927\_2021\_3\_43

## Introduction

The study subject is Moscow, Moscow region, and 4 regions bordering Moscow agglomeration – Vladimir, Ivanovo, Ryazan, and Yaroslavl regions. Moscow is the capital of Russia, a federal level city, the administrative center of the Central Federal District (CFD) and the center of the Moscow region, although is not part of the region, and the center of the Moscow metropolitan area. The Moscow region borders with 7 Russian regions: Vladimir, Kaluga, Ryazan, Smolensk, Tver, Tula, and Yaroslavl regions. It should be noted that in recent years only three constituent territories of the Russian Federation (Moscow, Moscow region, Kaluga region) were donor regions, while the other six were subsidized regions.

The Moscow agglomeration (Moscow as a federal city and the Moscow region) acts as a key growth point for the national economy, where enormous financial, material, labour, technological, and other types of resources are concentrated. This makes it possible to provide intensive social and economic development of both the Moscow agglomeration and its neighboring regions with joint production and infrastructure innovation projects (Veselovskii & Nikolaev, 2021).

The Moscow region takes the first place in Russia in terms of housing construction, the second in terms of retail trade turnover, the third in terms of gross regional product (GRP). The Moscow region continues to outpace economic growth. The region is one of the leading regions in terms of population education level, with only Moscow having it higher, and it noticeably exceeds all regions of the Central Federal District. Favorable conditions for business development are being created in the Moscow Region. The region is part of

the Moscow agglomeration – the largest in Europe in terms of population, and it is the economic, financial, trade, scientific, cultural, information, and innovation center of Russia. The region continues to concentrate economic activity within the closer "economic belt" of the Moscow region, localized around the Moscow Ring Road (MKAD) (Moscow Region Socio-Economic Development Strategy up to 2030, 2021).

As noted in the Strategy for Socio-Economic Development (hereinafter – the Strategy) of the Moscow region, here is the list of the conceptual aspects of development until 2030:

- balanced territory development with minimal disproportions (in economic conditions and social sphere, in the level and quality of life of the population, in the environmental impact);
- developed social sphere, which should ensure high social standards of quality and safety of life;
- Digital Moscow region (developing and distributing smart technologies, accelerated digitalization of the economy and social sphere, developing wireless communication technologies and conditions for creating smart cities, creating data centers, developing industrial Internet and Internet of Things, etc.);
- smart public administration, using project approach and risk management (openness and accessibility of state bodies, high involvement of civil society institutions and residents in solving urgent issues of social and economic development of the Moscow region).

The Moscow region is a major world-class transport and logistics hub. The region's logistics complex has been steadily developing over the last decade and has been one of the growth drivers even in the years of crisis. Development of the transport and logistics complex by 2030 will ensure:

- the creation of modern and sufficient energy and engineering infrastructure;
- high standards in logistics, high-speed and safe transportation;
- Clean Moscow region — an area of rational nature management, which provides a harmonious joint development of industrial-infrastructure and natural-environmental complexes, etc.

The Strategy notes, "in the long term, the Moscow region will have higher requirements for the quality growth of both the living environment and the goods and services produced in the territory of the region. A proper response to these requirements will allow the region to maintain and strengthen its leadership position in the competition for human capital and investment" (Moscow Region Socio-Economic Development Strategy up to 2030, 2021).

The region creates favorable conditions to intensify social and economic development, applies modern approaches to the organization of public administration, motivates business and investments, develops social infrastructure, which creates ample opportunities for further increasing the competitiveness and attractiveness of the Moscow region for living and doing business.

Social and economic development projects in Moscow and the Moscow region have a decisive influence on economic growth, lead to the lifting of infrastructural constraints, the transformation of the institutional environment of the economy, the transfer of positive experience to other Russian regions.

A serious challenge to the development of Moscow and Moscow region is the demographic aging, which leads to lesser in labor supply in the labor market. Thus, the share of people over working age increased throughout 2005-2019 from 21.8% to 26.9% in Moscow and from 23.1% to 24% in the Moscow region (Regions of Russia. Socio-economic indicators, 2020).

The Moscow region labor market is integrated into the single labor market of the Moscow metropolitan area. The Strategy states that the labor force in the region is expensive compared to the nearby Russian regions (except Moscow), and there is a significant outflow of the most valuable and qualified personnel to Moscow, which limits the human resource potential of the regional development. The scale of daily labor (commuting) migration of the region's inhabitants to the capital is linked to higher salaries in the capital, diversity of labor supply, and developed transport infrastructure. Thus, there are internal and external (from other regions) labor flows of migrants in the Moscow agglomeration.

There are long-term studies of the impact of the Moscow agglomeration on the social and economic development of the Central Russian regions. For example, V.Y. Lyubovny notes that Moscow, unlike many world capitals, plays not only the role of the national economy management center, but also concentrates a powerful and highly qualified scientific and production potential and acts as a generator of innovations for

the Russian economy in this regard. Moscow together with Moscow region (where the metropolitan functions are also implemented) forms a special "metropolitan region" (Lyubovnyi, 2007).

B.D. Babaev in his work "Moscow: Donor Or "Vampire"?! (2009) shows the monopolistic-competitive advantages of Moscow, its role in the formation of the Moscow macro-region, defines these processes as high-scale, having an extremely strong impact not only on the social and economic development of the Moscow region, but also on Moscow itself (Babaev, 2009).

B.D. Babaev, E.E. Nikolaeva, and A.I. Novikov study the combination and contradiction of interests in the investment sphere in the influence of Moscow on the Ivanovo region, the development strategy of one of the municipalities (Gavrilovo-Posadsky district) within Moscow's interests, etc. (Babaev, Nikolaeva & Novikov, 2008).

N.V. Zubarevich points to Moscow's agglomeration advantages and the strong attraction of population and investment to the metropolitan region; new task of macro-regions — implementation of major infrastructure projects (Zubarevich, 2019). V.N. Leksin states that material, financial, human, and other resources are pulled into large urban agglomerations (Leksin, 2019). The place and role of the largest agglomerations are considered by O.V. Kuznetsova (Kuznetsova, 2019) et al.

### **Purpose of the study**

The proximity to Moscow and the Moscow region plays an important role in the social and economic development (SED) of the Upper Volga regions – Vladimir, Ivanovo, Ryazan and Yaroslavl regions. This proximity is considered a competitive advantage of these regions in their own Strategies. But in real economic life, on the one hand, there is interregional competition for resources, especially with the leading regions of the CFD, such as Moscow and the Moscow region, and, on the other hand, there are increasing opportunities for regions to build up integration potential with the Moscow agglomeration through development of their own potential (production, investment, innovation, infrastructure, institutional, etc.). In this article our aim is to assess the way the development of socio-economic relations with the Moscow agglomeration is emphasized in the new updated strategies of 4 regions (Vladimir, Ivanovo, Ryazan, and Yaroslavl regions), what the threats of such "neighborhood" are, and what are the ways to overcome them.

Integration aspects are reflected in scientific research (Libman & Kheifets, 2007). L. Grigoryev, N. Zubarevich, and Yu. Urozhayeva note that "the current form of interregional competition is a loser both for its subjects and for society as a whole". The authors distinguish Russia's macroregions and their unique features, noting the increasing connectivity of their main markets (labor, capital, locally produced consumer goods, etc.) (Grigoriev, Zubarevich & Urozhaeva, 2008).

### **Study methodology**

One of the methods for the analysis of SED of regions and regional policy is the analysis of regional development strategies and programs. For example, I. Nikolaeva and O. Tochilkina focus their analysis on the content of regional strategies, their elements (mission, goals and objectives, external environment analysis, strategic alternatives) (Nikolaev & Tochilkina, 2006). The methodological basis of our study was a comparative analysis of regional strategies (Finalized drafts of strategies of constituent entities of the Russian Federation, 2021; Strategy for socio-economic development of the Vladimir region until 2030, 2021), including mission, competitive advantages, development scenarios, strengths and weaknesses, opportunities and threats (SWOT-analysis).

### **Study contents**

Our analysis showed significant differences in population, wages, unemployment, and migration between the Moscow agglomeration and the 4 regions studied. As can be seen from Table 1, the population in the 4 regions under study is declining. As a result, in 2019, population of the Vladimir region was 91% of the 2005 level, 90% in the Ivanovo region, 93% in the Ryazan region, 95.5% in the Yaroslavl region. The average monthly nominal wage of employees of organizations is the lowest in the Ivanovo region (29.4% of the wage in Moscow, 50% of the wage in the Moscow region), in the Vladimir region – 34.5% and 58.8%, in the Ryazan

region – 37% and 62.5%, in the Yaroslavl region – 38.5% and 66.7%, accordingly. According to sample surveys of the labor force in the pre-COVID economy, the unemployment rate was the lowest in Moscow (1.4%) and Moscow region (2.7%), highest in Yaroslavl region (5.4%), while in Vladimir, Ivanovo, and Ryazan regions it averaged about 4%.

**Table 1** – Some indicators of social and economic development of regions

	Population, by the end of the year, thousand people		Average monthly nominal accrued wage of employees of organizations, rubles	Unemployment rate*, % of labour force
	2005	2019	2019	2019
Moscow	10924	12678	94294	1.4
Moscow region	6784	7691	55555	2.7
Vladimir region	1486	1358	33076	4.0
Ivanovo region	1102	997	27553	3.8
Ryazan region	1189	1109	34488	3.9
Yaroslavl region	1313	1254	36016	5.4

\* according to sample labor force surveys, annual average

Source: *Regions of Russia. Socio-economic indicators, 2020*

Population migration plays an important role as an indicator of social and economic well-being of the region. As can be seen from Table 2, for the period 2013-19, there was a stable migration growth of the population only in the Moscow agglomeration and the Yaroslavl region. In 2019, migration growth was observed in all surveyed regions.

**Table 2** – Migration growth rates per 10,000 people population<sup>1</sup>

	2013	2014	2015	2016	2017	2018	2019
Moscow	90	57	92	24	89	79	38
Moscow region	140	149	120	141	111	140	144
Vladimir region	-4	-1	-11	-2	-21	-24	20
Ivanovo region	-5	-7	-22	-13	-22	-33	8
Ryazan region	16	4	0.01	17	8	-4	21
Yaroslavl region	38	35	37	28	7	3	8

<sup>1)</sup> Sign (-) indicates a decrease

Source: *Regions of Russia. Socio-economic indicators, 2020*

As can be seen from Table 3, the pandemic period led to a significant reduction in migration to Moscow, Ivanovo region (2.5% of the previous inflow), Moscow region (less than a half of the previous inflow), and Ryazan region (about 33% of the previous inflow). And in the Vladimir and Yaroslavl regions, the migration growth has changed to a decline.

**Table 3** – Migration growth (+) / decline (-) of population, people

	2019	2020
Moscow	+47,584	+1,614
Moscow region	+110,198	+51,250
Vladimir region	+2,693	-1,594
Ivanovo region	+816	+20
Ryazan region	+2,327	+821

	2019	2020
Yaroslavl region	+1,023	-964

Source: Key indicators of the socio-economic situation of the constituent entities of the Russian Federation in 2020

In the strategies of the studied regions, we put migration to the Moscow agglomeration in the Threats in the SWOT analysis: for example, this is the pendulum migration of the economically active population from the Vladimir region to the Moscow and Nizhny Novgorod agglomerations; centripetal processes in population migration between Ivanovo region and Moscow (resettlement to permanent residence, pendulum and rotational migration); low migration attractiveness of the region for highly skilled labor migrants of Yaroslavl region; migration outflow of the most qualified personnel from the Ryazan region to Moscow and neighboring regions.

For example, the Ryazan region Strategy notes three main attraction points of the region's population: the first is Moscow as a major scientific and educational center, labor market, and sales market. The second is Ryazan as an intraregional center of attraction of population especially from small towns of the region (Kasimov, Rybnoye, Ryazhsk, Sasovo, Skopin). The third are the centers of the neighboring regions, which are within 2-4 hours' reach (Voronezh, Lipetsk, Nizhny Novgorod, Tula) (Ryazan Region Socio-Economic Development Strategy up to 2030, 2021).

The analysis of competitive advantages of Vladimir, Ivanovo, Ryazan, and Yaroslavl regions showed that the strategies of these regions claim a favorable geographical location associated with proximity to Moscow. For example, the Vladimir region Strategy notes "a favorable geographical location within international transport corridors, developed transport network, and proximity of major markets – Moscow and Nizhny Novgorod – are the most important prerequisites for the implementation of its transit potential" (Strategy for socio-economic development of the Vladimir region until 2030, 2021), and the Ryazan region Strategy states "a favorable economic and geographical position: comparative proximity to Russia's largest regional market – the Moscow agglomeration" (Ryazan Region Socio-Economic Development Strategy up to 2030, 2021).

The impact of being a neighbor to the Moscow region is most clearly reflected in the SWOT analysis of SED of the regions.

The SWOT analysis of the Vladimir region points out the Strengths such as the proximity to high-capacity sales markets (Moscow and Nizhny Novgorod agglomerations) and active trade contacts with Moscow and the Moscow region; main industrial centers of the region (Vladimir, Murom, Kovrov, Gorokhovets) along major transport highways, including the federal highway M12 Moscow-Kazan, a fairly good environmental situation in the region, despite the proximity to Moscow. Rich cultural heritage, natural and historical monuments, being a part of the Golden Ring of Russia, availability of the Small Golden Ring (Aleksandrov, Yuryev-Polsky, Suzdal, Vyazniki, Gorokhovets, Murom, Gus-Khrustalny, Vladimir) determine the tourist attractiveness of the Vladimir region, allow it to support small business, create new jobs in the region, form the Vladimir tourist product, including for Moscow residents, for 1-2 days.

The Weaknesses include pendular migration of the economically active population to the Moscow and Nizhny Novgorod agglomerations; strong dependence on the sales markets of Moscow and the Moscow region. A reduction in the number of employees at existing enterprises and high rates of understaffing at the region's enterprises is causing an outflow of working-age people, primarily to the Moscow region, which has a higher standard of living, quality of life, and a higher labor market supply. At the same time, the Vladimir region is dealing with a high level of registered unemployment in comparison with other subjects of the Central Federal District, there is a shortage of skilled workers, qualified managers in the administration of municipalities. And the shortage of qualified personnel, in turn, limits the growth of productive and innovative sectors of the economy.

Significant losses of the region's producers in case of negative phenomena in the markets of Moscow and Moscow region are cited as Threats. The Moscow region acts as a strong competitor in the struggle for federal support of agriculture and for investments, including foreign ones. Moscow and the Moscow region are considered as strong centers of attraction of investments and innovations (Strategy for socio-economic

development of the Vladimir region until 2030, 2021).

Strengthening the presence of Vladimir producers in the markets, including Moscow and the Moscow region, is seen as an Opportunity; another one is attracting foreign investments due to the territorial proximity to Moscow and location on the transport corridor; finally, investment programs in the region by major corporations of the country (Gazprom, Russian Railways, Rosseti) are also considered an Opportunity.

In SWOT analysis of Ivanovo region, here are the Strengths which may be of interest to external investors, consumers of goods and services: high potential of sales markets for goods and services produced in the Ivanovo region; good level of development of transport and telecommunication infrastructure; convenient transport and logistics interchange; availability of vacant production sites with communications and power, heating capacities and relatively low cost of land plots; availability of infrastructure to accommodate production and other investor facilities (industrial parks, business centers, etc.); rich historical and cultural heritage and picturesque natural landscape (Ivanovo Region Socio-Economic Development Strategy up to 2024, 2021).

The Weaknesses include social inequality, low-income levels, contributing to significant migration of able-bodied population to Moscow and neighboring regions.

Among the Threats are the high attractiveness of the Moscow agglomeration for young people; tensions in the labor market; competition from neighboring regions. One of the factors reducing the quality of human capital and causing personnel shortages for the region's economy at present and in the medium term is the "outflow" of specialists to work in neighboring regions with higher wages (Ivanovo Region Socio-Economic Development Strategy up to 2024, 2021).

The analysis of external factors influencing the development of the Ivanovo region highlights macrofactors (macroposition) – the position of the region in the global economy; mesofactors (mesolocation) – the position of the region in Russia and microlocation – the position of the region among its immediate neighbors – the regions of the Center and the North of the European part of Russia. As noted in the Strategy, the most significant impact on the SED of Ivanovo region comes from microfactors, including Moscow and Moscow region, which "determine the centripetal processes of population migration between Ivanovo region and Moscow. At the same time, there is both resettlement for permanent residence (insignificant scale) and temporary migration for employment (pendulum and rotational migration), which is significantly large" (Ivanovo Region Socio-Economic Development Strategy up to 2024, 2021).

The Strategy names interregional differentiation as one of the main problems of Ivanovo region: the region lags far behind a number of neighbouring CFD regions in terms of per capita GRP, average per capita income and average wages; the region is characterized by a reduced level of investment attractiveness. As stated in the Strategy, "the need to reduce the scale of commuting will encourage regional authorities to pay more attention to the growth of salaries in organizations and enterprises in the region and to create conditions for increasing the number of jobs. And in this case, the micropositioning of Ivanovo region will have a positive impact on the level of the regional SED, including on the standard of living of the population. At the same time, the very growth of the population's income will be ensured, inter alia, by expanding the agglomeration influence of Moscow, which is an increase of investment in various spheres of tangible and intangible production. Also, the region's micropositioning will positively impact the development of the region through the strengthening of interregional ties for the supply of food and light industry products" (Ivanovo Region Socio-Economic Development Strategy up to 2024, 2021).

The region's Opportunities are: advantageous geographical position; availability of land plots suitable for agricultural use; vacant sites for investment projects. Opportunities in the region are also related to the export of medical services. There is a large complex of various medical institutions in the region, including the Gorodkov Federal Research Institute of Maternity and Childhood that applies modern reproductive technologies (Ivanovo Region Socio-Economic Development Strategy up to 2024, 2021). Moscow has invested in the reconstruction of the Ivanovo-Yuzhny airport, in housing (SU-155 Construction Company), etc. (Babaev, Berendeeva & Smirnov, 2007). Other large investment projects with money from Moscow (construction of 2 cattle-breeding complexes by Dymov, etc.) are currently underway.

In Ryazan region, here are the Strengths noted in the SWOT analysis. The region has a unique cultural heritage: historical, architectural, and archaeological monuments, more than 30 public and private museums. The region belongs to the regions with favorable opportunities for domestic and inbound tourism; it is possible to develop almost all types of tourism there: cultural and educational, therapeutic and recreational, active, ecological, business, pilgrimage, rural, etc. (Ryazan Region Socio-Economic Development Strategy up to 2030, 2021).

Threats include the migration outflow of the most qualified personnel to Moscow and neighboring regions. The Strategy notes that Ryazan has transformed into a densified, uncomfortable metropolis that has lost its competitive advantage in terms of urban environment over the Moscow agglomeration.

Opportunities for the development of the Ryazan region are related to the development of new technologies (robotics, new materials, medical technologies) due to the increased consumer demand of the population and industry of the Moscow agglomeration; as well as improved interaction with the fast-growing regions of Central and Southern Russia (Voronezh, Krasnodar, Rostov-on-Don, and Sochi). In order to reduce migration outflows, to preserve young people and the inflow of highly qualified personnel, it is noted that it is necessary to develop the science and education sector (Ryazan Region Socio-Economic Development Strategy up to 2030, 2021). Development opportunities of the Ryazan region are also related to forming high-tech health services. For example, the section Priority 1. Human Capital indicates the development of medical tourism (specialization of the Ryazan region – vascular surgery, dentistry, ophthalmology, otorhinolaryngology, cosmetology). Priority 2. High Technologies, Points of Growth provides an active promotion of the brand of medical institutions of the Ryazan region, including dental, in Moscow and the Moscow region (Ryazan Region Socio-Economic Development Strategy up to 2030, 2021).

The section Business Climate, Support for Entrepreneurship provides for "assistance to regional producers for access to networks, including the Moscow agglomeration (emphasis on fast-growing organic food markets)" (Ryazan Region Socio-Economic Development Strategy up to 2030, 2021).

Section 5.8. Priority 8. Spatial Development divides the Ryazan region into 6 economic zones: Metropolitan, Eastern, Eastern Transit, Southwest Transit, Northern Tourist, Southern Agrarian. Metropolitan includes Ryazan, Zakharovskiy, Rybnovskiy, Ryazan districts. It accommodates businesses of all clusters allocated in the region, and the economy of the territory is mainly oriented to the markets of Ryazan and Moscow. These areas have a well-developed suburban agriculture. As written in the Strategy, the development of greenhouse farms is promising here. There is more low-rise construction, including private houses in countryside. Well-developed sphere of services is oriented on transit flows (hotels, trade establishments, restaurants, etc.). Entertainment services are also developed (Ryazan Region Socio-Economic Development Strategy up to 2030, 2021).

Section 5.8.2. Smart Specialization of Municipalities of the Ryazan Region defines the creation of a website Active citizen (a similar website has been operating for 7 years in Moscow), and for Sasovskiy Municipal District, there is a task to further develop a network research platform for mastering modern educational technology Individual Style of Educational Activity, created by the Moscow State Pedagogical University (Ryazan Region Socio-Economic Development Strategy up to 2030, 2021).

The Strategy of the Ryazan region also presents a PEST analysis, which notes that "the economy of the Ryazan region develops in general according to the development dynamics of Russia, to a large extent depends on the development of the Moscow region and the prospects of manufacturing industries <...> Unemployment is at a stable average level (surplus labor force moves out of the region, including leaving to work in the Moscow agglomeration)" (Ryazan Region Socio-Economic Development Strategy up to 2030, 2021).

The SWOT analysis of the Yaroslavl region also takes into account the region's proximity to the Moscow region as its Strengths: advantageous geographical location (transport corridors, proximity to markets, proximity to the Moscow agglomeration (in terms of placement of production facilities to be withdrawn). Also citizens of Moscow and residents of other cities may be attracted by such Strengths of the region as developed transport infrastructure (airport, major railway junction, waterways and motorways); availability

of high potential for improving the quality of social services, large recreational potential, extensive historical and cultural heritage (the region positions itself as a "pearl" of the Golden Ring of Russia), which in general makes it attractive for external tourists. Health services are among the best in terms of quality and accessibility in the CFD, and the level of quality of education services significantly exceeds the standards established in Russia (Yaroslavl Region Socio-Economic Development Strategy up to 2025, 2021).

The Weaknesses, which can affect the interregional movement of labor force, include a shortage of workers and low migration attractiveness of the region for highly skilled migrant workers (Yaroslavl Region Socio-Economic Development Strategy up to 2025, 2021).

Among the Threats is the growing competition from neighboring regions in the markets for investment and labor resources.

The region's broad set of Opportunities is linked to the metropolitan area:

- bringing the borders of the Moscow agglomeration closer to the borders of the Yaroslavl region;
- increasing pace of relocation of production and office functions from the congested and "expensive" Moscow region to other regions;
- presence of foreign companies willing to locate their production facilities in Russia (not only in the Moscow region — author's note);
- availability of mobile skilled workforce in other regions;
- further growth of internal and external tourist flows;
- increasing inflow of investors from the metropolitan agglomeration, etc. (Yaroslavl Region Socio-Economic Development Strategy up to 2025, 2021).

Yaroslavl region is one of the largest centers of domestic and inbound tourism in Russia – such types of tourism as historical, water, recreational, beach, industrial, etc. are developing. As noted in the Strategy, Yaroslavl region is becoming a weekend recreation center for residents of the Moscow agglomeration (Yaroslavl Region Socio-Economic Development Strategy up to 2025, 2021).

Strategic priorities (drivers) of development include, among other things, taking advantage of the close proximity to the Moscow agglomeration to occupy the market in order to transfer office functions and production of Moscow companies (Yaroslavl Region Socio-Economic Development Strategy up to 2025, 2021). Moscow productions are relocating because, as research shows, the regions with a higher level of production activity actively involve labor resources in production activities, attract more investment, and innovate more actively (Babkova & Panakhov, 2018).

The Strategy notes that Yaroslavl is currently an attractive city for Moscow companies in terms of the transfer of some business processes and individual productions.

Target clients for the transfer of functions and productions to the Yaroslavl region are:

- manufacturing companies interested in moving production out of Moscow;
- large companies in the service sector;
- big banks;
- insurance companies;
- major telecommunications companies;
- companies with partial state investment;
- Internet developers, data centers.

A number of companies, both private and state-owned, have already assessed the attractiveness of Yaroslavl for relocation of back offices and service departments, including VympelCom, Raiffeisenbank, Severstal, HeadHunter, and the Agency for Housing Mortgage Lending. Today, companies either themselves or with the help of consultants determine the attractiveness of regions according to several indicators. The experience of these companies shows that Yaroslavl and Rybinsk can become one of the key cities for the adoption of service units and production facilities (Yaroslavl Region Socio-Economic Development Strategy up to 2025, 2021).

It is interesting to analyze regional development scenarios of integration processes with the Moscow agglomeration. For example, the Strategy of the Vladimir region provides for 3 development scenarios

(Strategy for socio-economic development of the Vladimir region until 2030, 2021). The inertial scenario involves a lower economic growth rate compared with the leading regions of the Central Federal District, low attractiveness for Moscow investors, and a limited inflow of new major investment projects.

Innovative scenario of the region stipulates knowledge economy sector and transition to innovative way of development, which will allow to provide domestic and foreign markets with ready-made industrial and consumer goods, to produce goods under the brand Made in Vladimir Region recognized by customers, while withstanding competition, including with the largest Moscow manufacturers. This scenario will provide a significant inflow of capital, enhance the development of the social sphere, more efficient use of resources, increase the parameters of human capital, and increase the role of innovation in the economy. The parameters of the labor force will improve, including an increase in the cost of labor; the use of the latest technology will reduce labor shortages and lead to an increase in labor productivity. If the innovative scenario is implemented, the economic growth rate will be significantly higher than in the leading regions of the CFD.

The target scenario assumes intensive use of all types of resources, intensification of investment and innovation-technological factors of development of Vladimir region, outstripping average Russian rates of economic growth, strengthening integration processes between Vladimir region and Moscow agglomeration (by adoption of complementary strategies and programs of social and economic development). It assumes the development and launch of projects based on public-private partnership, as well as conditions to attract major investors from the Moscow agglomeration. In this case, the Vladimir region can act as a universal techno-promotional platform, using not only its own developments, but also the achievements of the recognized scientific centers of Russia. The development of this scenario may change the flow of labor resources. On the one hand, there will be an inflow of highly qualified specialists, first of all, of technical specialties. Highly qualified specialists moving from other regions of Russia, as well as non-resident graduates of vocational education institutions who will stay to live and work in the region, will be an important reserve for improving the quality of human resources in the regional economy. On the other hand, there will be a growing outflow of labor resources from the Vladimir region, as modernized production technologies make it possible to reduce the workforce due to automation and computerization of production processes. In this case, people will be able to realize their professional abilities in the developed neighboring centers, including Moscow and Moscow region, where working conditions and salary level are much higher than in the Vladimir region. Such movement of labor flows will also increase integration processes between regions.

Tourism development will also unite neighboring regions. In tourism, the Vladimir region plans to develop both traditional directions (historical and cultural tourism) and new ones (health improvement, business, event, ecological, sports, pilgrimage, rural, car trips, weekend recreation). As it is noted in the Strategy of the Vladimir region, "the implementation of the targeted strategic alternative will lead to the Vladimir region taking the path of intensive development due to close interaction with the existing leader, the Moscow region" (Strategy for socio-economic development of the Vladimir region until 2030, 2021).

The Ivanovo region Strategy outlines 2 scenarios – conservative and intensive.

If the conservative scenario is implemented, the region can: reduce investment activity and demand for products of a number of sectors of the economy, grow unemployment and decline in incomes of the population, increase migration flows to more developed Russian regions.

The intensive scenario as a strategic one envisages the attraction of large investors to the textile industry, machine building, and metal processing, and the agro-industrial complex sector; forming conditions for high-class tourists' stay in the region; implementation of promotional programs for Ivanovo-made products on the Russian market; targeted investment marketing of the Ivanovo region, creation of an attractive image of the region among the Russian population, Russian investors. In case of active economic growth in Ivanovo region, it is expected: increase in investment activity, reduction of unemployment and income growth, reduction of population outflow, growth of domestic and external demand (Ivanovo Region Socio-Economic Development Strategy up to 2024, 2021).

The foundation for acceleration of innovative development of the Ivanovo region is, in particular, "the proximity to Moscow – a potential technology supplier, a carrier of the latest knowledge and competencies,

the largest consumer of innovative products" (Ivanovo Region Socio-Economic Development Strategy up to 2024, 2021).

The development of integration potential of regions can be considered in terms of regional potentials. For example, regional power systems have long been integrated. The energy system of Ivanovo region is a part of the unified energy system of the Center and has intersystem connections with Vladimir, Nizhny Novgorod, Kostroma, and Yaroslavl energy systems. At present, the transport infrastructure of the regions of Central Russia, their transport and transit potential is actively developing. The objectives are to improve not only the quality and accessibility of transport services, but also the degree of integration of the region's transport network into the transport network of adjacent areas.

Table 4 presents examples of the development of regional potential (production, transport and logistics, transit) taking into account interregional relations.

**Table 4** – Competitive advantages and objectives, objectives for their development as part of the development of integration potential

	Competitive advantages of the region for the development of this potential	Areas of potential development
Production potential (Yaroslavl region)	<ul style="list-style-type: none"> <li>- availability of qualified workforce;</li> <li>- a high quality higher education system;</li> <li>- advantageous location — 282 km from Moscow;</li> <li>- lower labor costs;</li> <li>- low other operating costs;</li> <li>- relatively low rental rates;</li> <li>- availability of technology parks, ready-made sites with communications;</li> <li>- comfortable environment for living and leisure activities;</li> <li>- transport accessibility (cities located at a distance of 200-300 km from the capital, preferably on the route of the company's logistics flows, good roads and rail express trains are welcomed);</li> <li>- population size (at least 200,000)</li> </ul>	Yaroslavl and Rybinsk may become one of the key cities for the adoption of service units and production facilities
Transit potential (Vladimir region)	<p>The Vladimir region is a major transit hub with a wide range of logistics services and developed transport infrastructure.</p> <p>Competitive advantages:</p> <ul style="list-style-type: none"> <li>- advantageous geographical location of the Vladimir region;</li> <li>- position in the area of international transport corridors;</li> <li>- a developed transport network and proximity to the largest markets — Moscow and Nizhny Novgorod — are the most important prerequisites for the region's transit potential</li> </ul>	<ul style="list-style-type: none"> <li>- construction of the high-speed railway line VSM-2 Moscow-Kazan-Yekaterinburg;</li> <li>- reconstruction of the Dobrynskoye airport airfield;</li> <li>- Construction of a high-speed toll road within the MTC in the direction Moscow-Nizhny Novgorod</li> </ul>

	Competitive advantages of the region for the development of this potential	Areas of potential development
Transport potential (Ivanovo region)	<ul style="list-style-type: none"> <li>- advantageous geographical location for the promotion of goods to the neighboring Russian regions, close proximity to Moscow, the region's close proximity to major federal highways</li> <li>- well-developed transportation network</li> <li>- important railways and waterways that pass through the region and connect the Central and Western regions with the Eastern and South-Eastern regions</li> </ul>	<ul style="list-style-type: none"> <li>- construction of the eastern bypass of Ivanovo as a transit transport corridor that eliminates the transport gap between federal highways and connects 4 administrative centers (Vladimir, Ivanovo, Kostroma, Yaroslavl) with a single highway</li> <li>- organization of high-speed railway traffic on the Moscow-Ivanovo section (Lastochka trains)</li> </ul>
Transit potential (Ryazan region)	<ul style="list-style-type: none"> <li>- good transport accessibility (two federal highways, Russian railway corridors to the east and south)</li> </ul>	<ul style="list-style-type: none"> <li>- organization of high-speed railway traffic on the Moscow-Ryazan section.</li> <li>- reconstruction of railway station Ryazan-1</li> </ul>

Source: composed by the authors

As can be seen from Table 5, completion of major infrastructure projects provides advantages for both the capital and the transit region, which leads to the idea of forming the Moscow macroregion (Babaev, 2009) as a system with developing production, transport, logistics, and other subsystems.

**Table 5** – Regional advantages in the implementation of major infrastructure projects

Project (region)	Advantages for the Moscow agglomeration of Moscow capital	Benefits for the region
Construction of a high-speed railway VSM-2 Moscow-Kazan-Yekaterinburg (Vladimir region)	<ul style="list-style-type: none"> <li>- increased accessibility of cultural-historical heritage and recreational facilities</li> <li>- expansion of the market for logistics services from the center of the country to the regions</li> <li>- unloading of the Moscow transport hub</li> </ul>	<ul style="list-style-type: none"> <li>- additional budget revenues of the Vladimir region — 125 bln rub.;</li> <li>- more than 20 thousand new jobs;</li> <li>- GRP growth (forecast) — 13%</li> <li>- increased accessibility of cultural-historical heritage and recreational facilities</li> <li>- prerequisites cost-effective logistics centers in the Vladimir region, which will contribute to a greater coverage of the territory and markets</li> </ul>
Transfer of service units from the Moscow agglomeration to the Yaroslavl region	<ul style="list-style-type: none"> <li>- focus on the capital's functions as Russia's cultural, social and political center</li> <li>- investment of free capital of Moscow entrepreneurs in facilities at prices significantly lower than those in Moscow</li> <li>- strengthening the position of the capital's businesses in finance, trade, and services</li> </ul>	<ul style="list-style-type: none"> <li>- increasing strategic sustainability of the region's economy, balancing the budget through economic diversification;</li> <li>- the emergence of new highly skilled jobs; new competencies;</li> <li>- reducing the outflow of workforce to Moscow;</li> </ul>

Project (region)	Advantages for the Moscow agglomeration of Moscow capital	Benefits for the region
		<ul style="list-style-type: none"> <li>- investments in the facilities preparation and production development;</li> <li>- increase in budget revenues in the form of taxes;</li> <li>- stimulation of the consumer and service market;</li> <li>- development of a system of related businesses and outsourcing;</li> <li>- Increasing the region's human resource potential through job creation in modern technology area</li> </ul>

Source: composed by the authors

The efficiency of these projects is quite high. For instance, according to the estimates of the Center for Strategic Research, only during the first 10 years of operation of the Moscow-Kazan high-speed railway, additional budget revenues of the Vladimir region may reach 125 bln rub. More than 20 thousand jobs will be created to serve the airport complex and high-speed railway. The growth of GRP is predicted at 13% of tourist flow (Strategy for socio-economic development of the Vladimir region until 2030, 2021).

In the Transport Strategy of Russia for the period up to 2030, it is planned to build a high-speed toll road in the Moscow-Nizhny Novgorod direction as part of the MTC, which will relieve the burden on the Moscow transport hub to connect the administrative centres of neighboring regions bypassing Moscow (Kaluga-Tver-Vladimir-Ryazan-Tula).

Certainly, an important factor in using the advantages of geographical location and other competitive advantages of the regions is the administrative resource, activity, and efficiency of not only the federal, but also the regional authorities. For example, back in 2006, the government of Ivanovo region and the Northern Administrative District of Moscow signed an agreement on trade-economic, scientific-technical and cultural cooperation, and a similar Agreement was signed between the administration of Furmanovsky municipal district and the administration of Molzhaninovsky district of the Northern District of Moscow (Babaeva, Berendeeva & Smirnov, 2007).

The social capital of the governors of the subjects of Russia also plays an important role. S.S. Voskresensky, the Governor of Ivanovo region, Deputy Representative of the President of the Russian Federation in the Northwestern Federal District from 2012 to 2014, Deputy Minister of Economic Development of the Russian Federation from 2014 to 2017, since October 2017 is in charge of the Ivanovo region. Governor of the Yaroslavl Region D. Yu. Mironov since 2013 is in administration at the Ministry of Internal Affairs of the Russian Federation, since July 2016 runs the Yaroslavl region. Governor of the Ryazan region N.V. Lyubimov served as Minister of Economic Development of Kaluga Region since 2004, Deputy Governor of Kaluga Region since 2016, was elected as a member of the State Duma of the Russian Federation, was a member of the Budget and Taxes Committee, and headed a subcommittee for cooperation with the Accounts Chamber of the Russian Federation.

### Conclusions

The strategies we have analyzed are large-scale science-based research, the result of an in-depth analysis of the current social and economic situation, the potential of the regions, trends in the development of macro-, meso- and microeconomics.

The strategies of SED in Russian regions reflect the ongoing integration processes between the regions

through the movement of labor flows, investments, innovations. Moscow agglomeration (Moscow and the Moscow region) is seen as a strong center of attraction for labor, investment, and innovation.

In the SWOT-analysis of the regions (Vladimir, Ivanovo, Ryazan, Yaroslavl regions), the Threats include the migration outflow of the most qualified workforce to Moscow and neighboring regions, associated with significant interregional wage difference. At the same time, the regional Strengths and competitive advantages include the proximity to the Moscow region.

The Strategies note that the territorial location close to the Moscow agglomeration dictates the change of industrial production of the regions to the needs of these major markets (in the Vladimir region, it is also an attention to the Nizhny Novgorod agglomeration). It is noted that the regions will embark on a path of intensive development through close interaction with Moscow and the Moscow region, and the development of specialized types of production and the creation of joint clusters with the Moscow agglomeration on their basis will significantly accelerate economic growth and the living standards of the population.

The opportunities of Central Russian regions to enter the markets of Moscow agglomeration and other regions with their products and services expand, developing new technologies, implementing certification of products, ensuring their compliance with international standards, promoting them in the markets by holding exhibitions, fairs. The strategies also note the opportunities for regional development in connection with the formation of high-tech services (in health care, etc.)

Since these regions are crossed by federal highways from Moscow, the strategies consider incorporation into federal transit corridors and access to markets, development of roadside infrastructure services on transit highways.

Interregional competition poses serious tasks to the regional authorities economically (development of the region's competitive advantages and positioning of the region within the development of Russia as a whole and the Moscow macroregion in particular) and socially (ensuring high quality of life and comfortable environment for the population).

## References

1. Babaev, B. D. (2009). *Moscow: Donor or "Vampire"?* Ivanovo-Moskva (in Russian).
2. Babaev, B. D., Nikolaeva, E. E., & Novikov, A. I. (2008). *Influence of Moscow on socio-economic development of Ivanovo region: directions, forms, mechanisms, evaluations*. Ivanovo: ISU (in Russian).
3. Babkova, E. G., & Panakhov, A.U. (2018). Rating assessment of balanced development of the regions of the Central Federal District. *Nauchnyi zhurnal NIU ITMO. Ser.: Ekonomika i ekologicheskii menedzhment*, (2), 19-27 (in Russian).
4. Babaev, B. D., Berendeeva, A. B., & Smirnov, A. Yu. (2007). Integration resource of the region (on the example of Ivanovo region). *Ekonomist*, (1), 72-79 (in Russian).
5. Veselovskii, M. Ya., & Nikolaev, V. I. (2021). Moscow region industry as a key factor in over coming the crisis in the Russian economy. *Beneficium*, (1), 83-89 (in Russian).
6. Grigoriev, L., Zubarevich, N., & Urozhaeva, Yu. (2008). Scylla and Charybdis of regional politics. *Voprosy ekonomiki*, (2), 83-98 (in Russian).
7. Zubarevich, N. V. (2019). Spatial development strategy: priorities and tools. *Voprosy ekonomiki*, (1), 135-145 (in Russian).
8. Kuznetsova, O. V. (2019). Problems of selecting spatial development priorities. *Voprosy ekonomiki*, (1), 146-157 (in Russian).
9. Leksin, V. N. (2019). Roads that we do not choose (about the governmental "Strategy of Spatial Development of the Russian Federation for the period until 2025"). *Rossiiskii ekonomicheskii zhurnal*, (3), 3-24 (in Russian).
10. Libman, A., & Kheifets B. (2007). Subregional aspects of corporate integration in the post-Soviet space. *Obshchestvo i ekonomika*, (8), 137-150 (in Russian).
11. Lyubovnyi, V. Ya. (2007). Socio-economic development of Moscow inurban, regional and national dimensions. *Rossiiskii ekonomicheskii zhurnal*, (4), 3-17 (in Russian).

12. Nikolaev, I., & Tochilkina O. (2006). Strategies and programmes for regional development (comparative analysis). *Obshchestvo i ekonomika*, (7-8), 269-287 (in Russian).

13. (2021, March 12). Key indicators of the socio-economic situation of the constituent entities of the Russian Federation in 2020. *Rossiiskaya gazeta*. (8403). Retrieved from <https://rg.ru/2021/03/12/percapita-dok.html> (accessed: 02.06.2021) (in Russian)/

14. Ministry of Economic Development of the Russian Federation. (2021). *Finalized drafts of strategies of constituent entities of the Russian Federation*. Retrieved from [https://www.economy.gov.ru/material/directions/regionalnoe\\_razvitie/strategicheskoe\\_planirovanie\\_prostranstvennogo\\_razvitiya/strategii\\_socialno\\_ekonomicheskogo\\_razvitiya\\_subektov\\_rf/dorabotannye\\_proekty\\_strategiy/](https://www.economy.gov.ru/material/directions/regionalnoe_razvitie/strategicheskoe_planirovanie_prostranstvennogo_razvitiya/strategii_socialno_ekonomicheskogo_razvitiya_subektov_rf/dorabotannye_proekty_strategiy/) (accessed: 02.06.2021) (in Russian).

15. Federal State Statistics Service. (2020). Regions of Russia. Socio-economic indicators. 2020: statistics compilation. Retrieved from <https://rosstat.gov.ru/folder/210/document/13204> (in Russian).

16. Ministry of Economic Development of the Russian Federation. (2021). *Strategy for socio-economic development of the Vladimir region until 2030*. Retrieved from <https://drr.avo.ru/strategia-socialno-ekonomicheskogo-razvitiya> (accessed: 02.06.2021) (in Russian).

17. Ministry of Economic Development of the Russian Federation. (2021). *Ivanovo Region Socio-Economic Development Strategy up to 2024*. Retrieved from [https://www.economy.gov.ru/material/directions/regionalnoe\\_razvitie/strategicheskoe\\_planirovanie\\_prostranstvennogo\\_razvitiya/strategii\\_socialno\\_ekonomicheskogo\\_razvitiya\\_subektov\\_rf/dorabotannye\\_proekty\\_strategiy/](https://www.economy.gov.ru/material/directions/regionalnoe_razvitie/strategicheskoe_planirovanie_prostranstvennogo_razvitiya/strategii_socialno_ekonomicheskogo_razvitiya_subektov_rf/dorabotannye_proekty_strategiy/) (in Russian).

18. Ministry of Economic Development of the Russian Federation. (2021). *Moscow Region Socio-Economic Development Strategy up to 2030*. Retrieved from [https://www.economy.gov.ru/material/directions/regionalnoe\\_razvitie/strategicheskoe\\_planirovanie\\_prostranstvennogo\\_razvitiya/strategii\\_socialno\\_ekonomicheskogo\\_razvitiya\\_subektov\\_rf/dorabotannye\\_proekty\\_strategiy/](https://www.economy.gov.ru/material/directions/regionalnoe_razvitie/strategicheskoe_planirovanie_prostranstvennogo_razvitiya/strategii_socialno_ekonomicheskogo_razvitiya_subektov_rf/dorabotannye_proekty_strategiy/) (in Russian).

19. Ministry of Economic Development of the Russian Federation. (2021). *Ryazan Region Socio-Economic Development Strategy up to 2030*. Retrieved from [https://www.economy.gov.ru/material/directions/regionalnoe\\_razvitie/strategicheskoe\\_planirovanie\\_prostranstvennogo\\_razvitiya/strategii\\_socialno\\_ekonomicheskogo\\_razvitiya\\_subektov\\_rf/dorabotannye\\_proekty\\_strategiy/](https://www.economy.gov.ru/material/directions/regionalnoe_razvitie/strategicheskoe_planirovanie_prostranstvennogo_razvitiya/strategii_socialno_ekonomicheskogo_razvitiya_subektov_rf/dorabotannye_proekty_strategiy/) (in Russian).

20. Ministry of Economic Development of the Russian Federation. (2021). *Yaroslavl Region Socio-Economic Development Strategy up to 2025*. Retrieved from [https://www.economy.gov.ru/material/directions/regionalnoe\\_razvitie/strategicheskoe\\_planirovanie\\_prostranstvennogo\\_razvitiya/strategii\\_socialno\\_ekonomicheskogo\\_razvitiya\\_subektov\\_rf/dorabotannye\\_proekty\\_strategiy/](https://www.economy.gov.ru/material/directions/regionalnoe_razvitie/strategicheskoe_planirovanie_prostranstvennogo_razvitiya/strategii_socialno_ekonomicheskogo_razvitiya_subektov_rf/dorabotannye_proekty_strategiy/) (in Russian).

© Alla B. Berendeeva, Olga O. Korobova, 2021

Received 02.07.2021

Accepted 28.08.2021

# INTERNET SERVICES MARKET: ASSESSMENT OF THE LEVEL OF COMPETITION AND COMPETITIVENESS OF THE MAIN PROVIDERS

Margarita I. Berkovich 

Kostroma State University, Russia  
E-mail: M\_berkovich@ksu.edu

Mursal I. Ismailov

Head of the Department of the Federal Antimonopoly Service in the Kostroma Region, Russia  
E-mail: ismailov@fas.gov.ru

Nikita M. Zhegalov

Kostroma State University, Russia  
E-mail: zhegalov.98@mail.ru

**Abstract.** The article presents a study of one of the most dynamic markets of communication services - Internet access via wired and wireless connections in Kostroma oblast. We identify barriers to entry to this segment. Also the authors quantified and graphically interpreted the level of competition in this market. We determine its significant factors and the competitiveness of providers; give a picture of potential Internet users by ranking them according to significant characteristics - age, income level, need to use wired Internet, priority in choosing providers, users' attitude to the cost of Internet access services and the degree of user satisfaction with the quality of services. We analysed the official websites of Internet service providers operating in Kostroma oblast to determine the availability of the most important information for the consumer and the ease of obtaining it.

**Keywords:** communication services, Kostroma oblast, competitiveness of ISP providers, consumer value, Internet access, Herfindahl-Hirschman Index.

**JEL codes:** R19, O33

**For citation:** Berkovich, M. I., Ismailov, M. I., & Zhegalov, N.M. (2021). Internet services market: assessment of the level of competition and competitiveness of the main providers. *Journal of regional and international competitiveness*, 4(3), 57-69. Retrieved from <http://jraic.com/index.php/tor/article/view/58>

**DOI:** 10.52957/27821927\_2021\_3\_57

## Introduction

The Internet is the greatest scientific breakthrough and its use in all sectors of the economy is an important component of any country's economic growth. Globally, 4.7 billion people were connected to the Internet by the second quarter of 2021, more than half of the world's population. In Russia the number of users was 124 million, exceeding 80% of the country's population.

Internet changes companies and industries. Some sectors of the Russian economy, primarily retail, public services, online tourism, online banking and others, are benefiting due to the Internet – new sales channels are emerging and developing, modern, innovative and efficient business models are being introduced, and the structure of operational processes is changing. By Internet people have the opportunity to express their professional skills, make it easier to find a job, advertise and develop their own business. Thanks to the Internet communication has not been interrupted and many areas of society have not collapsed in COVID-19 pandemic.

In Russia Internet access services are the communication services, which requires organisations to obtain a licence from the Ministry of Communications of the Russian Federation, as well as business project

approvals and equipment certificates. This type of activity implies its implementation only in the status of a legal entities, i.e. JSC and PJSC. Internet access services are of interest to a high number of first-time users, which determines the highest growth rate of this sector. It has been doubling every year in terms of profits for several years, and traffic consumption is even faster. It is gradually becoming a mass market. It removes the information asymmetry of the market and solves the crucial problem of minimising the cost of securing business contracts. Thus, the development of the Internet services market contributes to improving the efficiency of decision-making at all levels of the economic system, ensuring a new quality of growth. The rapid development of the Internet service provider (ISP) market is primarily due to the fact they provide all participants in social and economic relations with equal access to information and prompt communication with almost any subject.

An ISP is a company providing internet access services to everyone. It's main function is to provide a quality Internet connection (Market review of Internet access services, 2020).

In general, the range of services provided by ISPs is considerable and may include:

- providing broadband, dial-up and wireless Internet access;
- the forming of private corporate networks;
- the providing of mobile phone services;
- digital TV connection;
- locating the customer's equipment on the customer's own property;
- providing servers for rent.

### **Results and discussion**

In the beginning, many ISPs in Russia provided an extensive range of related services more suitable for organisations developing websites and online shops. Many of them provided hosting for developed websites, but nowadays the main trend is to provide mobile services, digital television and, most importantly, wireless network access.

The largest ISPs in Russia are:

- «Rostelecom»
- «Megafon»
- MTS
- «VimpelCom»
- «TransTeleCom»
- «Start Telecom»
- «Rascom»
- Orange Business Services
- RetnNet
- TeliaSonera International Carrier Russia

The top five are federal Russian providers who have invested heavily in developing their networks and are major for many segments of the high-speed Internet market in Russia. The smaller operators provide services to private Russian users and work mainly with other providers, lending their networks. Thus, the ISP market remains an oligopolistic type of market, with a small number of large sellers with great influence on prices and consumer behaviour. But there are smaller sellers, who have to target oligopolists or look for small vacant market segments.

In Kostroma oblast the number of users in 2019 was 403 thousand (64% of the total number of inhabitants). The following ISPs operate:

- Telecomservice-Kostroma LLC
- TV-Service N LLC
- PLC "Kostroma City Telephone Network"
- Svyaz-Energo LLC
- InterConnect LLC

- MediaLan LLC
- Axioma LLC
- LokalNet LLC
- CJSC Digital Network Logos
- PJSC “Megafon”
- PJSC “Rostelecom”
- PJSC “MTS”
- Beeline
- Tele2
- Yota
- PJSC “Sberbank”

Different companies are involved in selling internet traffic. In particular, traditional telephone operators; mobile operators; cable television operators; and foreign companies.

The level of monopolisation of the Internet access services market was assessed for 2018-2019 by two tracks:

- assessment of the level of competition in the market for wired Internet access services;
- assessment of the level of competition in the market for Internet access services via wireless connectivity.

According to the Russian Classification of Economic Activities OK 029-2001, activities in the field of documentary telecommunications (code OKVED 64.20.12), which includes

- telegraphic communications;
- telematic services: facsimile service, messaging and e-mail service, teleconferencing service, information service including helpline and information resource access services, voice services, voice transmission service using packet communication;
- data transmission and exchange of information between personal computers, providing access to global computer networks.

The barriers to entry include:

- economic restrictions:
  - the need for substantial initial capital investment with long-term payback periods;
  - absence of the necessary funding for network modernisation;
  - limited financial resources and high tariffs for renting telephone lines, light and trolleybus poles, laying telephone cables and fibre-optic cables in houses;
  - the cost of gaining access to the necessary resources and intellectual property rights, high cost of advertising;
- state and local authorities and other bodies and organisations administrative restrictions imposed (not inconsistent with competition law), including:
  - obtaining a licence to provide the service;
- other:
  - this market major companies behaviour in terms of setting tariffs for leasing mainline traffic;
  - the speed of demand for high-speed Internet access service outstrips the technical capacity of the providers' network facilities.

These barriers are not very complex, as evidenced by the large number of IPS providing services.

Table 1 presents the data for calculating the level of concentration and monopolisation needed to assess the level of competition in the market for wired Internet access services.

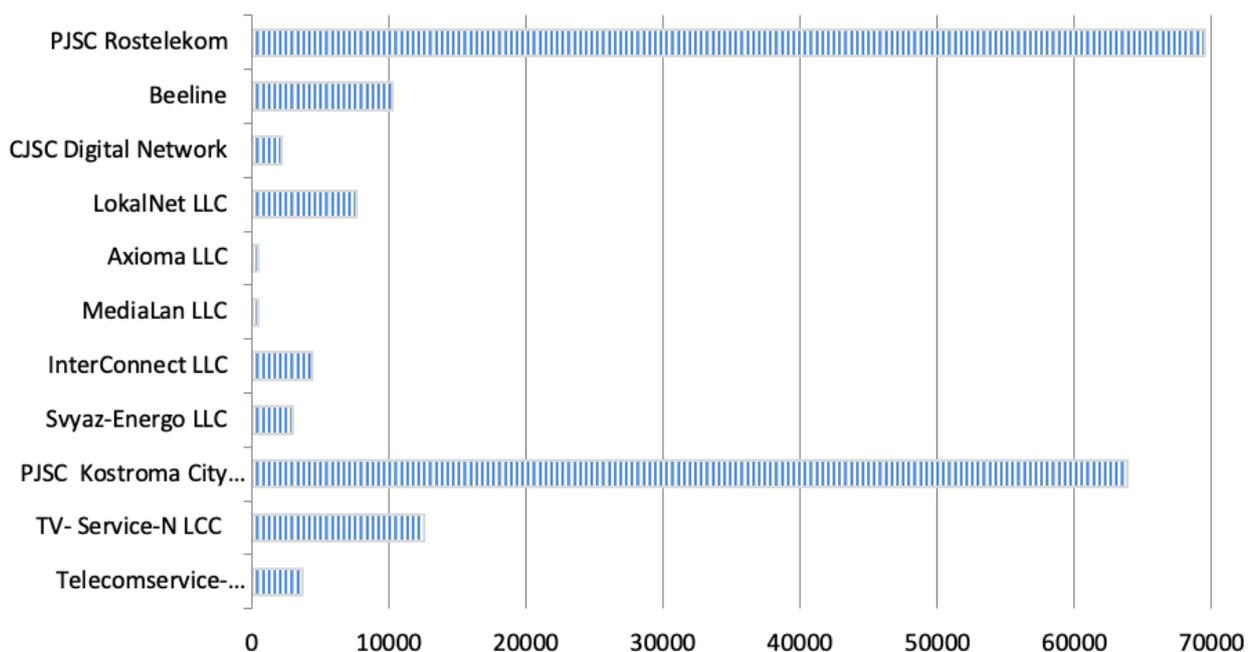
By Table 1, in 2019 the total number of wired Internet users in Kostroma oblast increased by 5 thousand (It should be noted that the number of users of Internet provider «Svyaz-Energo» decreased, which is explained by customer dissatisfaction with the quality of services).

**Table 1** – Data on the number of users provided with wired Internet access services in Kostroma oblast

	Number of users				Column 4 data squared	Column 5 data squared
	2018, thousands of people	2019, thousands of people	2018, % of total volume	2019, % of total volume		
Telecomservice-Kostroma LLC	3283	3689	1.89	2.07	3.6	4.29
TV-Service N LLC	11376	12566	6.58	7.06	43.34	49.86
PLC "Kostroma City Telephone Network"	63679	63877	36.85	35.89	1358.04	1288.59
Svyaz-Energo LLC	3129	2978	1.81	1.673	3.27	2.8
InterConnect LLC	3792	4347	2.19	2.44	4.81	5.96
MediaLan LLC	533	479	0.308	0.26	0.09	0.07
Axioma LLC	239	485	0.14	0.27	0.01	0.07
LokalNet LLC	7321	7599	4.23	4.27	17.94	18.23
CJSC Digital Network Logos	1977	2121	1.14	1.19	1.3	1.42
Beeline	9531	10253	5.51	5.76	30.42	33.19
PJSC "Rostelecom"	67938	69551	39.31	39.08	1545.78	1527.68
Total	172798	177945	100	100	3008.67	2932.22

Source: composed by the authors

The data of Table 2 are shown graphically in Figure 1.



**Figure 1.** Distribution of wired internet users by ISP

Source: composed by the authors

By Figure 1, the main market share is held by the largest organisations of Kostroma oblast (Rostelecom and KGTS), confirming a high concentration in the market.

We can calculate the concentration index and the Herfindahl-Hirschman index (Table 2).

**Table 2** – Summary of the concentration index and the Herfindahl-Hirschman index calculation

The index	Service	Internet access service	
		2018	2019
Number of sellers, units.		11	11
Concentration coefficient, %		92.48	92.06
Herfindahl-Hirschman index		3008.67	2932.22
Level of concentration		high	high

Source: composed by the authors

By Table 2, the concentration levels index as well as the Herfindahl-Hirschman index shows the high concentration for Internet access services. But at the beginning of 2019 there is a slight decline, which indicates a positive trend towards an increase of competitiveness.

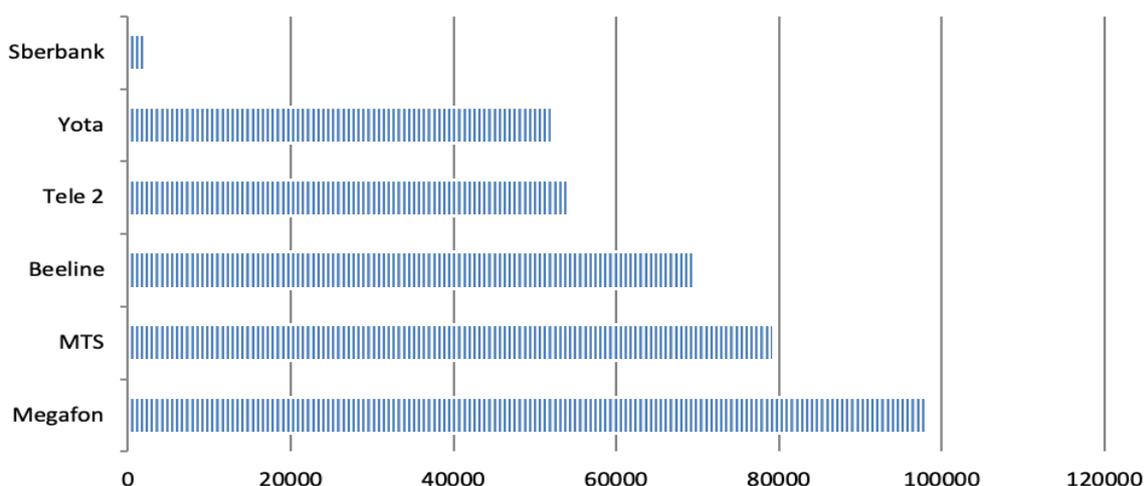
Table 3 shows the basic information for assessing the level of competition in the market for wireless Internet access services.

**Table 3** – The number of users provided with wireless internet access services in Kostroma oblast

	Number of users				Column 4 data squared	Column 5 data squared
	2018, thousands of people	2019, thousands of people	2018, % of total volume	2019, % of total volume		
PJSC “Megafon”	93158	98327	27.5	27.63	756.25	763.42
PJSC “MTS”	77935	79431	23	22.32	529	498.18
Beeline	66700	69532	19.7	19.54	388.1	381.81
Tele2	53599	54231	15.82	15.23	250.27	231.95
Yota	47354	52239	13.98	14.68	195.44	215.5
PJSC “Sberbank”		2139		0.6	0	0.36
Total	338746	355899	100	100	2119.06	2091.22

Source: composed by the authors

Table 3 shows a significant increase of mobile Internet users, with a total of 355899 users in 2019. Also, in 2019, a new provider, Sberbank PJSC, appeared on the market of wireless Internet access services in Kostroma oblast. This fact indicates the increasing competition in the market and a possible improvement of the quality of services.

**Figure 2.** Distribution of wireless internet users by providers, 2019

Source: composed by the authors

By Figure 2, the market shares of the users are approximately equal, with the exception of Sberbank, which has a market share of only 1% of the total market. Megafon has the leading position with a market share of 28%. It is followed by MTS, Beeline, Tele2 and Yota with market shares of 22, 19, 15 and 15% respectively.

Table 4 shows the calculation of the competition indices for wireless Internet access in Kostroma oblast.

**Table 4** – Summary of the concentration index and the Herfindahl-Hirschman index calculation

The index \ Service	Internet access service	
	2018	2019
Number of sellers, units.	5	6
Concentration coefficient, %	100	100
Herfindahl-Hirschman index	2119.06	2091.22
Level of concentration	high	high

Source: composed by the authors

By Table 4, the market for wireless Internet access services is highly concentrated, with a concentration ratio of 100%, indicating a low number of ISPs. The Herfindahl-Hirschman Index indicates a high level of concentration in the market, but is slightly below that of wired access.

The competitiveness of ISPs is interesting as well as assessing the level of competition in the market. An important tool for attracting potential users in this market is the quality and price of the services provided, as assessed by consumers in terms of the level of subscription fees.

Table 5 shows the tariff plans of the main ISPs in Kostroma.

**Table 5** – Internet subscription fees, 2020 (RUB)

ISP	Residential internet costs	Mobile internet costs
KGTS	350 to 1200	-
«Rostelecom»	440 to 890	-
PJSC “MTS”	990 to 2490 (with mobile internet)	420 to 2900
Yota	400 to 600	200 to 1300 (tariff setting option)
Megafon	400 to 900	300 to 650
Tele 2	-	350 to 600
Beeline	350 to 650	350 to 2500
LocalNet	250 to 850	-

Source: composed by the authors

By Table 5 for «Residential internet» the best offer is LokalNet, and mobile Internet is Yota, but when choosing a provider it is important to consider the quality of the connection.

It is interesting to compare the average cost of mobile and residential internet subscriptions with the regional centres of the neighbouring regions - Ivanovo, Yaroslavl and Vologda (Table 6).

**Table 6** – Average subscriber fee for mobile and residential internet in regional centres of neighbouring regions, 2020 (RUB)

Region	Residential internet	Mobile internet
Yaroslavl	590	450
Ivanovo	600	450
Vladimir	434	450
Vologda	680	450

Source: composed by the authors

By Table 6, the highest cost of Internet services is in Vologda - 680 rubles, and the providers with lower tariffs are based in Vladimir, the average cost of monthly use is 434 rubles there. Kostroma is in the middle

of the list with an average connection cost of 600 roubles per month. As for mobile internet, the price change in this segment of the internet access market does not depend on geographical location – it is the same at 450 RUB.

Each company offers its own connection conditions and tariff plans, which determine the competitiveness of a particular provider. The assessment of competitiveness was carried out in two stages: the first stage involved compiling a list of key success factors in the market for Internet access services and determining the weight of each factor by expert judgement; the second stage involved a sample survey of Kostroma residents.

The main competitiveness factors are: cost of connection; price/speed ratio; range of tariff plans; availability of «external» sales service; availability of advertising support; availability of exclusive connection technologies; financial sustainability of the company.

Five experts from two major communications companies were recruited: a sales manager and employee, a technical support person, a programmer and a system administrator. They assessed each of the factors by ranking them and assigning them an appropriate value (Table 7).

**Table 7** – Value of key success factors identified by experts

Factor	Average factor value
Cost of connection	0.07
Price/speed ratio	0.24
Range of tariff plans	0.06
availability of «external» sales service	0.19
Availability of advertising support;	0.234
Availability of exclusive connection technologies	0.12
Financial sustainability of the company	0.09
Total	1.0

Source: composed by the authors

By Table 8, the most significant factors were the price/speed ratio, with a value of 0.24, and advertising support with a value of 0.23, while the least significant was a factor of the range of tariff plans with a value of 0.06. This ranking allowed for an assessment of the competitiveness of the main ISPs in the market of Internet access services (Table 8).

**Table 8** – Assessment of the competitiveness of the main ISPs in the market for Internet access services

Indicators of competitiveness 1 - very weak position 10 - very strong position	Value	«Rostelecom»	KGTS	LocalNet	PJSC “MTS”	MegaFon	Beeline	Tele2	Yota
Subscription fee costs	0.07	5/0,35	6/0,42	8/0,56	8/0,56	10/0,7	8/0,56	10/0,7	9/0,63
Price/speed ratio	0.23	10/2,3	6/1,38	4/0,92	8/1,84	8/1,84	7/1,61	7/1,61	6/1,38
Range of tariff plans	0.06	3/0,18	3/0,18	2/0,12	9/0,54	8/0,48	9/0,54	10/1,8	8/0,48
Availability of «external» sales service	0.19	6/1,14	7/1,33	4/0,76	6/1,14	5/0,95	4/0,76	7/1,33	5/0,95
Availability of advertising support;	0.24	6/1,44	5/1,2	4/0,96	7/1,68	7/1,68	6/1,44	8/1,92	8/1,92

Indicators of competitiveness 1 - very weak position 10 - very strong position	Value	«Rostelecom»	KGTS	LocalNet	PJSC «MTS»	MegaFon	Beeline	Tele2	Yota
Availability of exclusive connection technologies	0.12	3/0,36	3/0,36	3/0,36	8/0,96	8/0,96	8/0,96	8/0,96	9/0,96
Financial sustainability of the company	0.09	10/0,9	9/0,81	5/0,45	10/0,9	10/0,9	9/0,81	8/0,72	8/0,72
Total	1								
Total		6.67	5.68	4.13	7.62	7.51	6.68	9.04	7.04

Source: composed by the authors

By Table 8, Tele2 is the most competitive company, with a strong position in terms of such indicators as the cost of subscription fees and the range of tariff plans. The least competitive ISP is LokalNet, which may be due to its low market coverage.

The second stage involved a survey of 101 potential Internet users in Kostroma oblast. Interviewees were ranked by - age, income level, need to use wired internet, priority in choosing providers, users' attitude towards the cost of connecting to internet access services.

Figure 3 shows the distribution of interviewees by age.

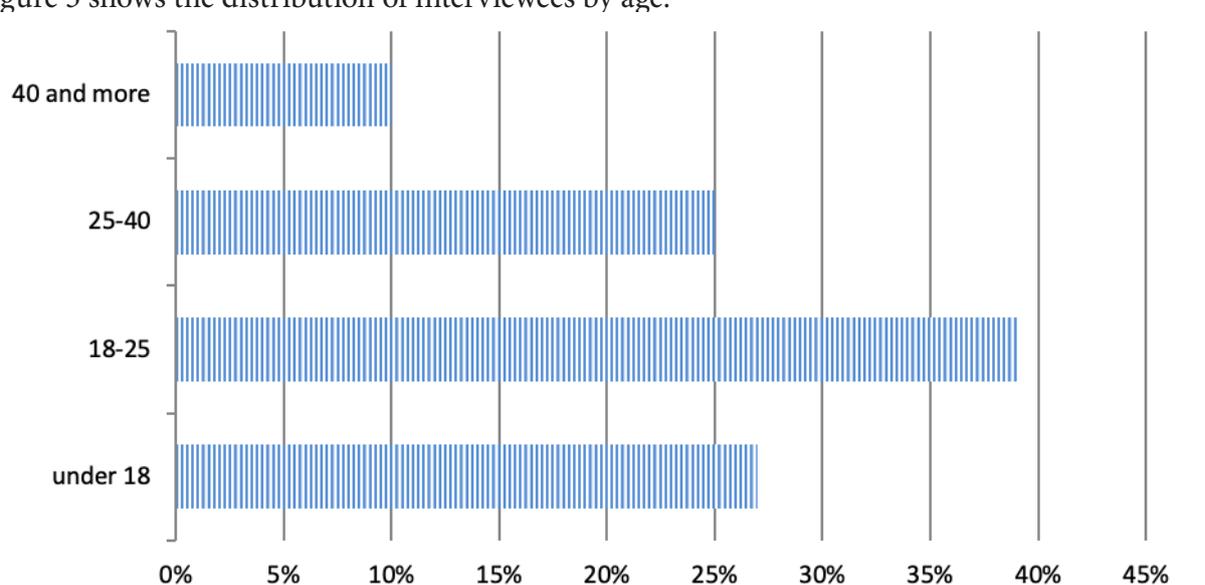


Figure 3. Distribution of Internet users by age

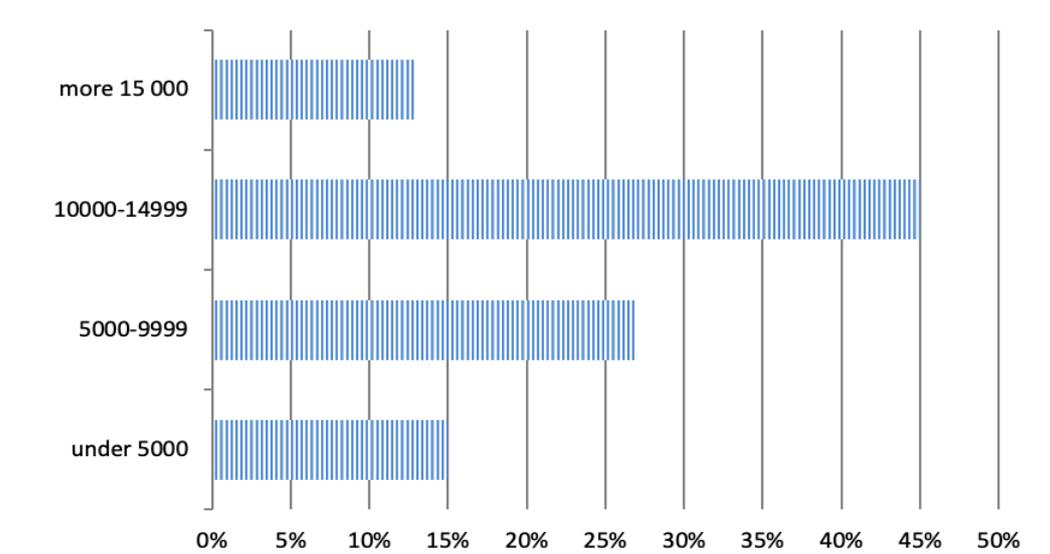
Source: composed by the authors

By Figure 3, the main group of users (65%) are under 25 years old.

The user income per family member is shown in Figure 4.

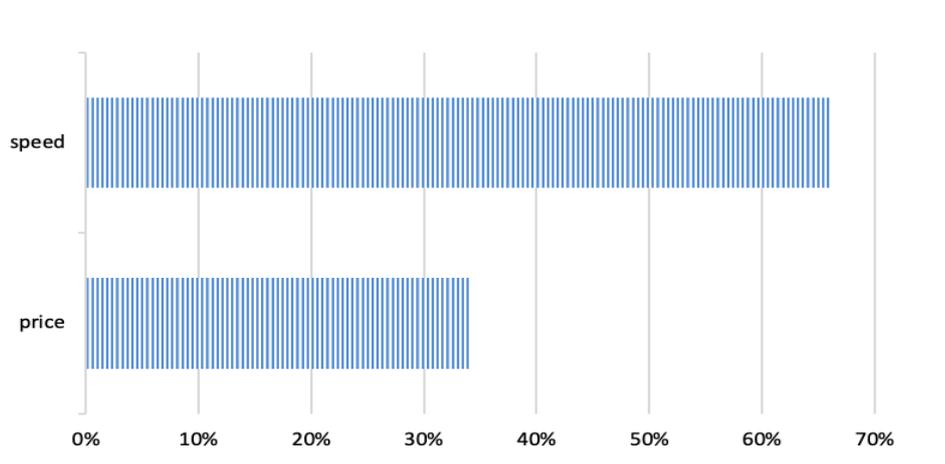
By Fig. 3 and 4, 65% of Internet user are under 25 years old, and 72% of them have a monthly income per family member of 5000 to 15 000 rubles.

The price and speed (Figure 5) were the predominant criteria of users' choice of ISPs. It was very relevant for identifying of their competitiveness.



**Figure 4.** Distribution of Internet users by income

Source: composed by the authors

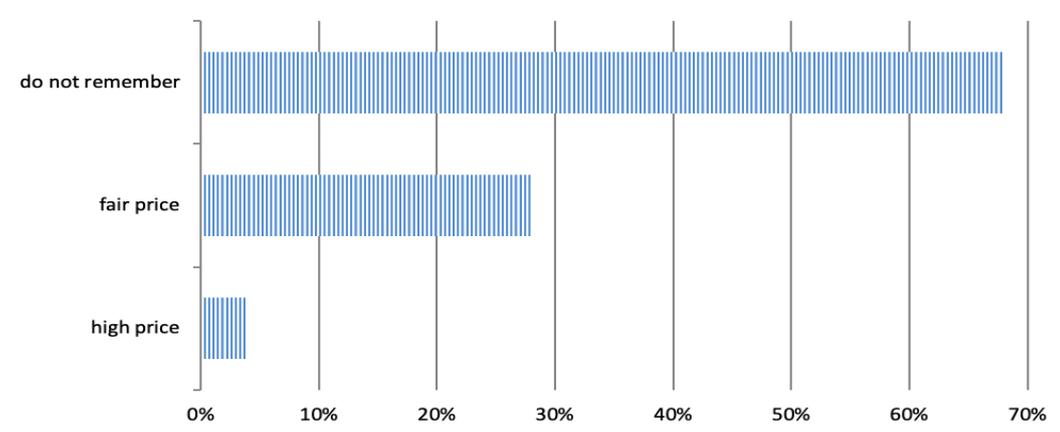


**Figure 5.** Distribution of users by priority in choosing IPS

Source: composed by the authors

It was identified that users initially focus on speed, i.e. connection quality (67.7%), and then on the cost of the service.

Figure 6 shows the users' attitudes towards the cost of connecting Internet access services.



**Figure 6.** Users' attitudes towards the cost of connecting Internet access services

Source: composed by the authors

By Figure 6, users do not consider this factor as significant one, even in case of user charges for

connecting Internet access services.

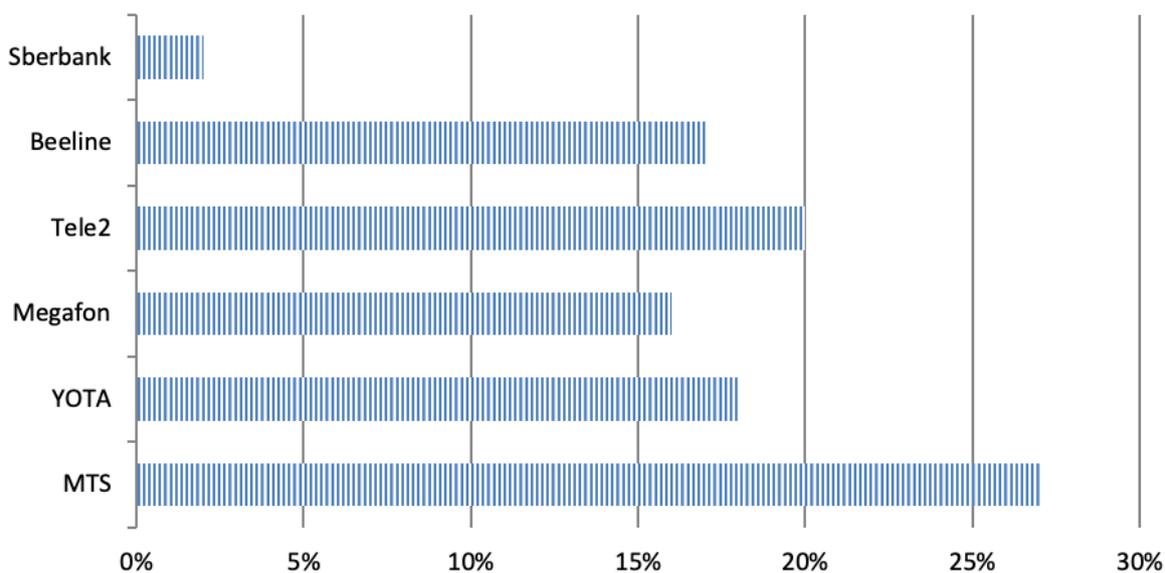
To compare the quality of services provided by ISPs, an Internet survey was conducted among Kostroma residents to find out which operator they use and what difficulties they encounter when using the Internet.

The survey is the research method. 184 respondents were interviewed.

Questions:

- What mobile phone operator do you use?
- Are you satisfied with the quality of service provided by your mobile phone operator?
- What residential internet service do you use?
- Are you satisfied with the quality of service provided by your mobile phone operator?

Below is a chart showing the structure of responses to the first question of the anonymous questionnaire (Figure 7).

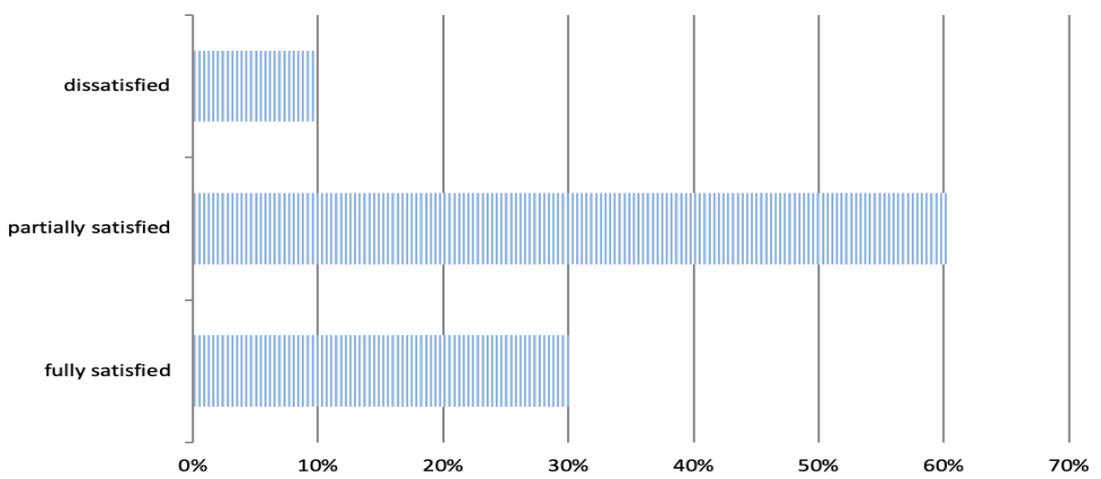


**Figure 7.** Distribution of answers to the question: «What mobile operator do you use?»

Source: composed by the authors

By Figure 7, the respondents use the services of each operator equally, but of Sberbank: only 2% of those surveyed use them. The majority of respondents - 27% - use MTS services, 20 % use Tele2, followed by YOTA, Beeline and Megafon at 18, 17 and 16%, respectively.

Figure 8 shows the structure of responses to the question about satisfaction with the quality of services.



**Figure 8.** Distribution of answers to the question: «Are you satisfied with the quality of service provided by your mobile operator?»

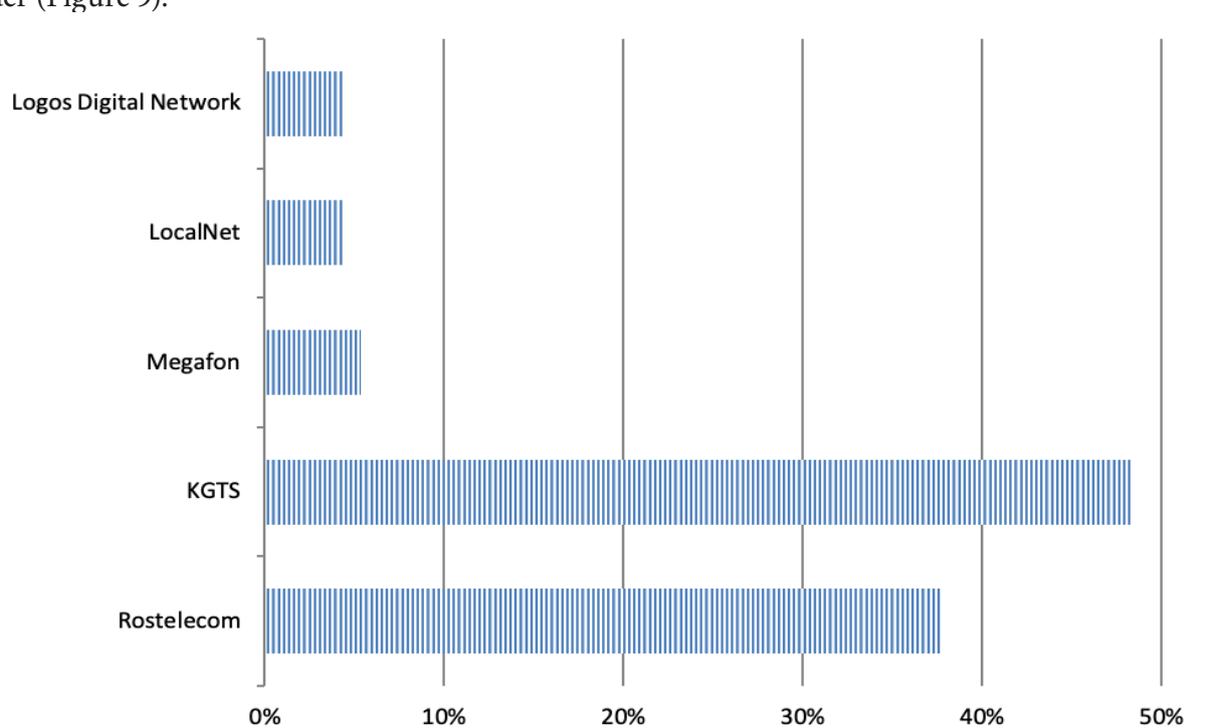
Source: composed by the authors

About one-third of respondents are fully satisfied with the service. By their opinions, the scale of network coverage for their own needs is more than sufficient.

60% claim that overall service delivery is high, but frequent network disruptions, lack of signals, and reduced speed and the inability to connect to unlimited internet at many operators are often. It is also noted that the network is not large enough for comfortable use both within and outside the city.

By one tenth of respondents are not satisfied with the quality of services provided by the operator because of the frequent cases of imposition unnecessary for the respondents services. These services are activated without the customer's permission and fee based. The list of negative factors is complemented by the unnecessary roaming.

The most significant are the respondents' opinions on their preference for a residential internet service provider (Figure 9).



**Figure 9.** Distribution of responses to the question «What residential internet service do you use?»

Source: composed by the authors

By Figure 9, the most use the services of KGTS and Rostelecom. KGTS - 49% and Rostelecom - 38%. LokalNet, Logos Digital Network, Megafon and other operators have extremely small roughly equal shares of 4, 4 and 5% respectively.

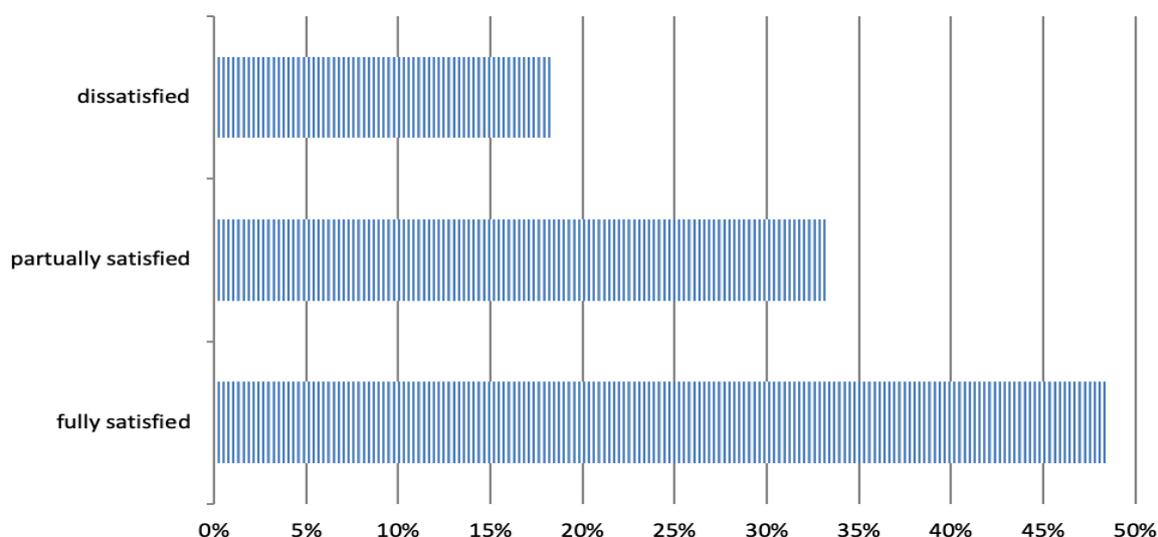
Also we studied the question of satisfaction with the quality of services. Figure 10 shows the structure of the responses.

By Figure 10, the half of the respondents claim to be completely satisfied with the quality of the services provided. They also note that the actual internet speed is fully in line with the claimed speed.

About a third of the respondents - 33% - found the internet service provided by their provider to be satisfactory; however, they also noted often internet disconnections. Some of the respondents noted unreasonable slowdowns of residential internet speeds.

About one-fifth of those surveyed - 18%, report that the internet services they receive from their ISPs are not satisfactory. Some of the respondents noted unsatisfactory service of technical support team.

In order to determine the potential competitiveness of market participants, we analysed 16 official websites of Internet service providers operating in the Kostroma oblast. The aim was to determine the presence of the most important information for the consumer and the ease of obtaining it according to three parameters - quick access to tariffs on the home page; availability of a personal account; availability of unique offers on the website. Table 9 shows the results of the analysis of ISP websites.



**Figure 10.** Distribution of answers to the question: «Are you satisfied with the quality of service provided by your residential internet operator?»

Source: composed by the authors

**Table 9** – Comparison of websites of ISPs in Kostroma oblast

	Quick access to tariffs on the home page	Availability of a personal account	Availability of unique offers on the website
Telecomservice-Kostroma LLC	+	-	-
TV-Service N LLC	-	+	-
PLC “Kostroma City Telephone Network”	+	+	-
Svyaz-Energo LLC	-	-	+
InterConnect LLC	+	+	-
MediaLan LLC	+	+	+
Axioma LLC	+	+	+
LokalNet LLC	+	-	-
CJSC Digital Network Logos	+	-	-
PJSC “Megafon”	+	+	+
PJSC “Rostelecom”	+	+	+
PJSC “MTS”	+	+	+
Beeline	+	+	+
Tele2	+	+	+
Yota	+	+	-
PJSC “Sberbank”	+	+	-

Source: composed by the authors

## Conclusion

By Table 9 we can conclude that the majority of ISP websites have a similar structure - the home page presents basic tariffs, it is possible to log in a personal account, some ISPs presented unique offers both for new users and for regular ones. The information is usually can be found on the official websites of mobile ISPs, probably because they provide communication services in addition to Internet access services. Wired internet operators are Rostelecom, MediaLan and Axioma. The websites of these ISPs contain all the analysed

indicators.

## References

1. KonsultantPlus (2020). *Constitution of the Russian Federation of 12.12.1993, with amendments of 01.07.2020. Art. 71*. Retrieved from [http://www.consultant.ru/document/cons\\_doc\\_LAW\\_28399/7faf10d5db4889ccd421abd45b63fd2b43a3dea7/](http://www.consultant.ru/document/cons_doc_LAW_28399/7faf10d5db4889ccd421abd45b63fd2b43a3dea7/) (in Russian).
2. KonsultantPlus (2020). *Federal law of 26.07.2006 N 135-FZ (ed. of 01.04.2020) "About protection of competition". Art. 23*. Retrieved from [http://www.consultant.ru/document/cons\\_doc\\_LAW\\_61763/55a3746dfde0a1bf154c63db656a823a81ecl1a33/](http://www.consultant.ru/document/cons_doc_LAW_61763/55a3746dfde0a1bf154c63db656a823a81ecl1a33/) (in Russian).
3. KonsultantPlus (2020). *Constitution of the Russian Federation of 12.12.1993, with amendments of 01.07.2020. Art. 15*. Retrieved from [http://www.consultant.ru/document/cons\\_doc\\_LAW\\_28399/54dd4e1f61e0b8fa47bff695f0c08b192a95f7a3/](http://www.consultant.ru/document/cons_doc_LAW_28399/54dd4e1f61e0b8fa47bff695f0c08b192a95f7a3/) (in Russian).
4. Arkhipova, L. S., Gagarina, G. Yu., & Arkhipov, A. M. (2020). *Competition as the basis of economy: conceptual approaches to the study of the role of competition*. M.: Infra-M. Retrieved from <http://new.znaniium.com/catalog/document?pid=1036532>. (in Russian).
5. Economics.Studio (2020). *Competition, its essence and role*. Retrieved from <https://economics.studio/ekonomicheskaya-teoriya/konkurenciya-suschnost-rol-70432.html> (in Russian).
6. Federalnaya antimonopolnaya sluzhba (2018). *Control over observance of the antimonopoly legislation by the authorities*. Retrieved from <http://fas.gov.ru/documents/615020> (in Russian).
7. Knigi.News (2020). *Regulation of Competition and Restrictions on Monopolistic Activities on Markets for Commodities and Financial Services*. Retrieved from <http://knigi.news/predprinimatel/121-normativno-pravovoe-regulirovanie-36279.html> (in Russian).
8. *Assessing the level of competition in the market*. Retrieved from [http://spravochnick.ru/marketing/ocenka\\_urovnya\\_konkurencii\\_na\\_rynke/](http://spravochnick.ru/marketing/ocenka_urovnya_konkurencii_na_rynke/) (in Russian).
9. Federalnaya antimonopolnaya sluzhba (2011). *Analysis of the market for Internet access services*. Retrieved from <http://spb.fas.gov.ru/analytic/5060> (in Russian).
10. BSNSS.Net (2014). *The market of Internet providers of Russia*. Retrieved from <http://bsnss.net/internet-biznes/vidyi-zarabotka/kak-stat-provayderom-interneta.html> (in Russian).
11. Federalnaya antimonopolnaya sluzhba (2013). *Information about the state of competition on the market for wired Internet access services in Chita*. Retrieved from <http://zab.fas.gov.ru/analytic/7485> (in Russian).
12. Federalnaya antimonopolnaya sluzhba (2018). *National Plan for the Development of Competition in the Russian Federation for 2018-2020*. Retrieved from <http://fas.gov.ru/documents/614337> (in Russian).
13. SBIS. *Procurement search and analysis*. Retrieved from <http://sbis.ru/tenders?p=tenders> (in Russian).
14. Federalnaya antimonopolnaya sluzhba (2019). *On the results of FAS Russia's activities in 2018*. Retrieved from <http://fas.gov.ru/documents/685117> (in Russian).
15. Textarchive.ru (2011). *Market for Internet access services*. Retrieved from <http://textarchive.ru/c-2139859.html> (in Russian).
16. Federalnaya antimonopolnaya sluzhba (2019). *Project of road map action plan ("road map") to promote competition in a constituent entity of the Russian Federation*. Retrieved from <http://fas.gov.ru/documents/685506> (in Russian).
17. *The essence of competition, its role, functions and forms*. Retrieved from [http://www.alley-science.ru/domains\\_data/files/decembel17r/sushnost%20konkurencii,%20eyo%20rol,%20funkcii%20i%20formy.pdf](http://www.alley-science.ru/domains_data/files/decembel17r/sushnost%20konkurencii,%20eyo%20rol,%20funkcii%20i%20formy.pdf) (in Russian)

© Margarita I. Berkovich, Mursal I. Ismailov, Nikita M. Zhegalov, 2021

Received 11.06.2021

Accepted 20.08.2021

# THE ROLE OF DEVELOPMENT INSTITUTIONS IN ENHANCING REGIONAL COMPETITIVENESS

Elena G. Patrusheva 

Yaroslavl State University named after P.G. Demidov, Russia  
E-mail: patr5@ya.ru

Anna V. Rajhlina 

Financial University under the Government of the Russian Federation, Russia  
E-mail: AVRajkhлина@fa.ru

---

**Abstract.** At the turn of 2000-2010, in all Russian regions, a large number of regional development institutions (RDIs) were created. These are specialized organizations that are supposed to contribute to the competitiveness and investment attractiveness of the territory. However, the analysis of the correlation between the investment dynamics for 2019-2020 in the Central regions and the number of RDIs shows unevenness and multidirectionality of its vectors for individual regions. The study attempts to assess the role of development institutions in enhancing regional competitiveness on the example of development corporations as an institution that is widely represented in the Russian regions. The study identifies a number of significant legal, economic, and organizational problems that reduce the effectiveness of this type of institutions. The authors prove the necessity and present both system-wide changes with functioning RDIs, which is relevant to all regional institutions, and changes in the internal environment of development corporations. The paper also discloses the mechanism of building a regional system of development institutions that will contribute to improving the procedures for interagency cooperation in creating a favorable business environment and, consequently, strengthen the competitive position of the region.

**Keywords:** regional development institutions, competitive advantages of regions, investment attraction, conditions of development institutions' activity.

**JEL codes:** G38, H70, H83, R58

**For citation:** Patrusheva, E. G., & Rajhlina, A. V. (2021). The role of development institutions in enhancing regional competitiveness. *Journal of regional and international competitiveness*, 4(3), 70-78. Retrieved from <http://jraic.com/index.php/tor/article/view/59>

**DOI:** 10.52957/27821927\_2021\_3\_70

---

## Introduction

A favorable investment climate and the measures stimulating entrepreneurial activity contribute to the competitiveness of regions. The actors responsible for these tasks are regional development institutions (RDIs).

In a broad sense, development institutions are a set of tools and mechanisms that reduce the negative effects of crisis phenomena and stimulate economic growth (Ezangina et al., 2020; Matveev, 2015; Sahasranamam & Nandakumar, 2020). These include the development and implementation of relevant regulations, state and regional programs, various economic, administrative, educational activities, activities of infrastructure organizations, trade unions and associations, etc. (Kalyuzhnova, 2011; Evans & Harding, 1997; Rodríguez-Pose, 2013). In a narrower applied sense, development institutions are organizations created to implement public policies to enhance investment and innovation processes (Ergunova et al., 2017). This is how they are interpreted in the currently adopted federal and regional regulations (Frumina, 2017).

The scientific literature presents a variety of approaches to RDIs classification (Chashkin, 2012). They are classified by type (organization or territory), by formalization degree (formal, informal), by instruments of support (financial and other), etc. Regional public-private partnership institutions deserve special attention (Comarova & Chernya, 2020). The report of the Institute of Economics of the Russian Academy of Sciences

(Bakhtizin et al., 2015) names as such development corporations, small and medium enterprise (SME) support funds, business incubators, industrial and technology parks, as well as territories of special socio-economic development (TSSED). A number of studies also consider cluster structures as development institutions (Nikitaeva, 2017).

### Background and methodology

Most Russian regions represent a variety of development institutions with different functional and organizational-legal forms (Domnina & Maevskaya, 2017; Ivanov & Bukhvald, 2018). Almost all regions have Development Corporations and SME Support Funds. Table 1 presents data on other types of formal development institutions in the Central Federal District (excluding Moscow as the leading federal region) found in open sources.

**Table 1** – Regional Development Institutions of Central Federal District of the Russian Federation

Russian region	Business Incubator / Accelerator	Industrial / Tech Park	Cluster
Belgorod region	3	7	2
Bryansk region	1	1	1
Vladimir region	1	6	-
Voronezh region	4/1	8	6
Ivanovo region	2	3	1
Kaluga region	1	11	2
Kostroma region	2	-	1
Kursk region	2/1	3	1
Lipetsk region	1	6	6
Moscow region	10	84	6
Orlov region	1	3	3
Ryazan region	1	5	6
Smolensk region	-	2	3
Tambov region	4/1	2	-
Tver region	2	4	1
Tula region	2	1	3
Yaroslavl region	1	7	-

Source: composed by the authors

It is logical to assume that the results of RDIs present in a particular region are to some extent reflected in the investment attractiveness of the territory – one of the competitiveness factors. However, the number of RDIs created is no guarantee of their effectiveness. The data in Table 2 show that, for example, the Tula region, where at least six support organizations operate, manages to attract a larger volume of investment than, for example, Yaroslavl region, where there are eight of them.

**Table 2** – Dynamics of the volume of investments in fixed assets by regions of the Central Federal District

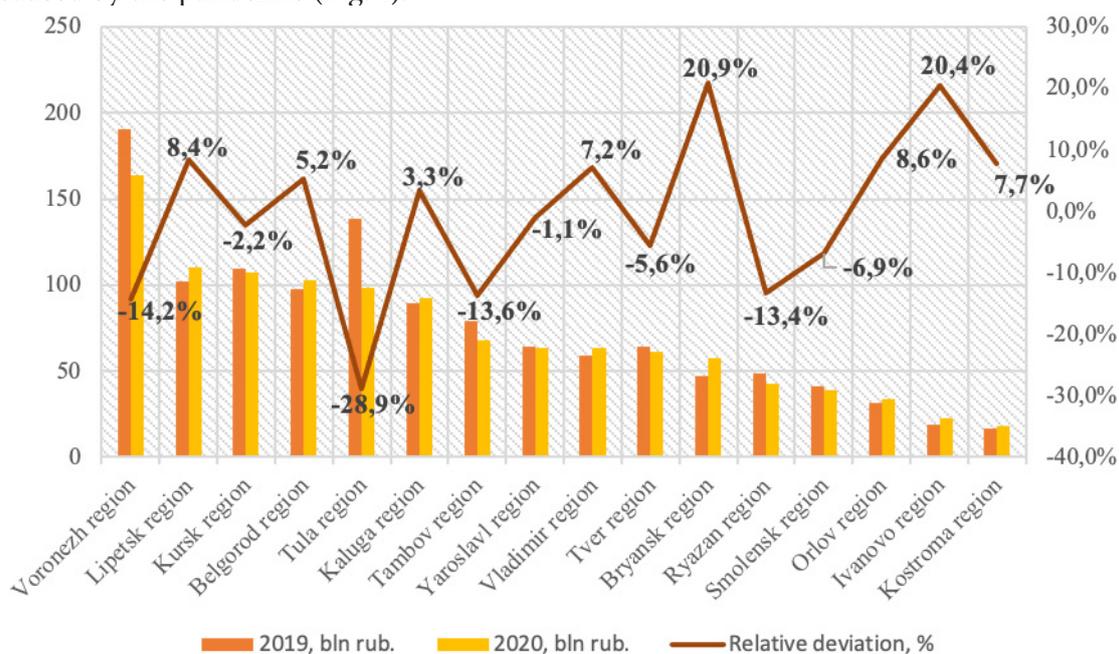
Region	Investments in fixed capital, bln. rub.			
	2017	2018	2019	2020
Moscow region	1 942.3	2,449.37	3,142.59	3,551.51
Voronezh region	180.1	177.84	190.69	163.55
Tula region	92.08	119.05	138.84	98.73

Region	Investments in fixed capital, bln. rub.			
	2017	2018	2019	2020
Belgorod region	81.01	75.13	97.46	102.52
Lipetsk region	80.77	70.48	101.95	110.53
Kursk region	78.84	93.67	109.8	107.39
Tver region	74.6	80.08	64.56	60.97
Tambov region	70.3	58.9	78.8	68.06
Kaluga region	61.58	71.5	89.16	92.08
Yaroslavl region	58.69	58.15	64.36	63.66
Ryazan region	46.92	45.59	48.85	42.33
Vladimir region	46.5	46.36	59.26	63.55
Bryansk region	38.17	42.65	47.36	57.27
Smolensk region	32.17	47.28	41.53	38.66
Ivanovo region	13.42	13.52	18.97	22.83
Orlov region	23.67	29.15	31.22	33.91
Kostroma region	12.91	14.03	16.69	17.97

Source: composed by the authors on the data from the analytical portal 3DPRO.INFO <https://3dpro.info/panel/group/07e2d729-c959-420e-a827-e36807d88851>

As can be seen, only 6 regions out of 17 show a steady growth in the volume of investment in fixed assets since 2017: Moscow region (the total volume of investments exceeds the sum of investments in other CFD regions presented in Table 2), as well as Bryansk, Ivanovo, Orel, and Kostroma regions, where the number of created RDIs is relatively small.

To analyze the quality of the established institutional environment, it might be interesting to compare the investment numbers for 2019 and 2020, as they reflect the regions' ability to cope with the economic problems caused by the pandemic (Fig. 1).



**Figure 1.** The volume of investments to the fixed capital in the regions of the Central Federal District for 2019-2020

Source: composed by the authors

The data presented show that regions with a large number of RDIs, such as Voronezh and Ryazan

regions, were rather noticeably affected by the crisis. At the same time, regions with a smaller number of them, such as Bryansk or Ivanovo regions, showed better results. As a reminder, these are the regions that have also shown steady growth in fixed asset investment since 2017.

Since quantitative methods do not provide a comprehensive picture of the role of development institutions in enhancing regional competitiveness, a qualitative assessment of the contribution of a certain group of RDIs to this process is necessary. Development Corporations were chosen for the analysis as the institution most widely represented in the Russian regions.

**Results**

Development Corporations were created to meet the requirements of the Standard of Activities of the Executive Authorities of the Russian regions (Order of the Ministry of Regional Development of the Russian Federation, September 24, 2013. N 408). Indicators of implementation of items 6 and 9 of this Standard is "availability in a constituent entity of the Russian Federation of a specialized organization for attracting investments and working with investors", as well as "for support of investment projects". The Standard had to be implemented as soon as possible and thus there was not enough time to prepare quality methodological support for the activities of this Institute (Mitrofanova & Pozhilova, 2018).

The authors' analysis of the activities of the Central Federal District Development Corporations allowed them to highlight a number of significant problems that hinder the full-fledged contribution of RDIs to the enhancement of regional competitiveness. They can be classified as system-wide problems concerning not only Development Corporations, but also other institutions, as well as problems specific to this particular institution (Table 3).

**Table 3** - The complex of the main problems in functioning of regional development institutions

System-wide	<ul style="list-style-type: none"> <li>- Lack of a concept of development of institutions as a holistic system</li> <li>- Insufficient methodological tools for performance evaluation</li> </ul>		
Typical for Development Corporations	legal	economic	building interaction
	<ul style="list-style-type: none"> <li>- uncertain status of RDI</li> <li>- contradiction in the form of JSC and development goals</li> </ul>	<ul style="list-style-type: none"> <li>- low economic efficiency</li> <li>- the need for additional funding sources</li> </ul>	<ul style="list-style-type: none"> <li>- between institutions</li> <li>- with regional authorities</li> <li>- with regulatory agencies</li> <li>- with investors</li> </ul>

Source: composed by the authors

Since there was no concept of institutional development as a holistic system, the creation of RDIs was mostly tactical and situational (Bondarenko et al., 2017). The functioning of individual RDIs is overly focused on short-term objectives and insufficiently embedded in long-term priority objectives. There is a significant methodological gap concerning the assessment of their contribution to the socio-economic development of the region. This generates often unfounded conclusions by the public about misuse of budgetary funds allocated by the RDI.

The problems of functioning specific to development corporations can be divided into legal, economic, and organizational ones.

In the field of law, the issue of uncertain status and place in the system of regional governance is, in our view, the most relevant and largely determinant for the rest of the problems. The concept of a Regional Development Institute with the corresponding powers is not enshrined in either federal or regional legislation. Legal uncertainty of the status exacerbates the whole set of problems of RDI activities.

The widely used form of joint stock company for development corporations also presents a number of challenges. RDIs in the form of JSCs are quasi-commercial companies. At the same time, development institutions perform functions of ensuring the most favorable outcome for investors and do not have administrative and financial independence, coordinating all current operational decisions with the authorities. It means that there is an objective contradiction between the interests of a commercial organization and the

objectives of creating a comfortable investment environment in the region.

The unclear legal status determines a number of economic problems in the functioning of RDIs. The lack of stable funding sources severely limits the RDI's ability to work with investors. Regional budgets are mostly deficit-ridden. The amount of investment allocated to attracting investments (for the activities of regional development institutions as well) often do not provide the necessary parameters for it.

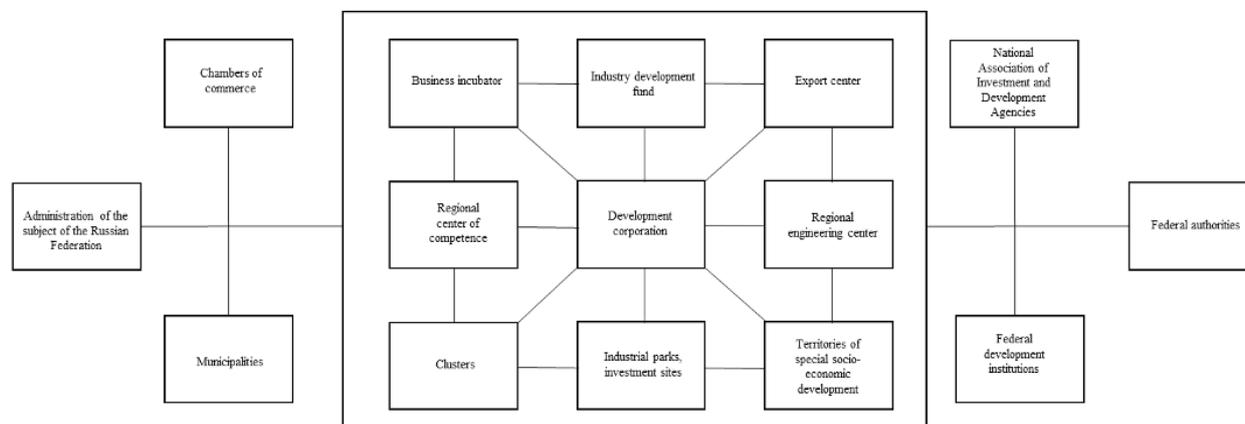
An important area of the RDI's activity is the creation of investment sites and development of projects significant for the region, which is largely non-commercial in nature. Membership in public organizations and associations, participation in forums, various public events, negotiations, and work with potential investors require additional mechanisms for obtaining subsidies to reimburse the cost of work performed on promising projects.

As for building interactions, there is an important aspect of creating a unified legal framework for development corporations, as for other RDIs. Since the work with investors is interdepartmental, in order to agree and promote investment projects, it is necessary to communicate with various organizations. The unclear authority of RDIs in the regional governance system is exacerbated by the need to review traditional investor outreach tools against the backdrop of increasing digitalization of socio-economic processes.

In order to strengthen the role of RDIs in enhancing the competitiveness of territories, in our opinion, a set of measures at the federal, regional levels, and in the institutions themselves is needed. First of all, the notion of a Regional Development Institution needs to be enshrined in the legal framework. According to research, in 2013, only 10% of experts thought it was necessary to introduce the term into federal law, while in 2016, already 53% of respondents agreed to that (Ergunova et al., 2017).

It seems that it could be defined by a separate federal legal act, which would regulate various issues of RDI activities. Some organizational solutions are also required. Currently, several structures, such as the Ministry of Economic Development, the Ministry of Industry and Trade, and the ASI, are in charge of coordinating RDIs in Russia. Therefore, it seems appropriate to identify one center of responsibility when making recommendations to the regional institutions. The centralized organization of business trips abroad (possibly under the supervision of the Ministry of Economic Development of Russia) in order to present the investment potential of individual regions and establish business contacts also seems to be a relevant direction. In order to overcome RDIs' economic problems, it is worth considering the creation of specialized financial products for them by state banks, federal development institutions, or the federal fund for their support. One of the solutions could be the development of the state program of investment activity development in the regions, which would solve the issues of training and professional development of RDI specialists, development of business plans of priority projects, conducting market research, etc.

Since the organizational-legal forms and practices of the development institutions established in the regions differ, reflecting the specifics of a particular region, it is necessary to provide for a comprehensive regulation of the system of their interaction at the regional level to improve the effectiveness of RDIs (Fig. 2).



**Figure 2.** Framework model of the regional development institutions system (on the example of the Yaroslavl region)

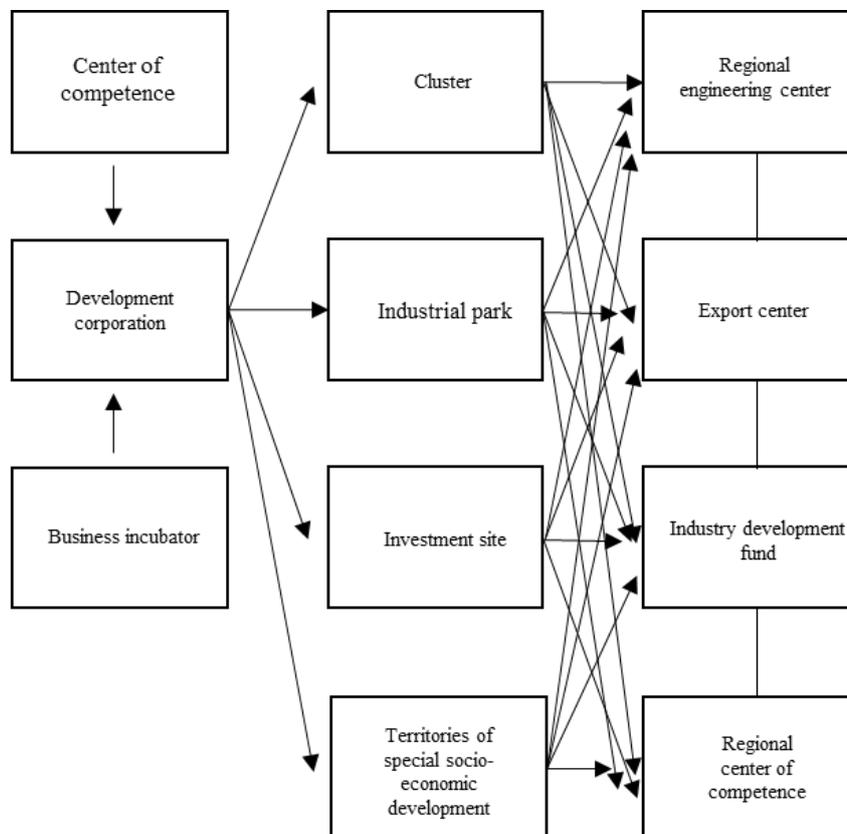
Source: composed by the authors

This document should outline the points of convergence of all participants in the processes of creating a favorable business climate in the region: RDI, the Chamber of Commerce and Industry (CCI) and other business associations, the regional administration, municipalities, and determine the procedure for their interaction. Also, this regulation should define how RDIs should interact with federal authorities (FA), institutions, and non-profit organizations, such as the National Association of Investment and Development Agencies (NAIDA).

Over the past ten years of active completion of development institutions, the socio-economic situation has changed significantly, including the intensive processes of technological transformation. Investors are interested in obtaining a new quality of project support service, speeding up decision-making and documentation. They also need a clear and informative picture of the opportunities available in a particular region for their initiatives. As a consequence, development institutions need to look for new effective procedures for working with investors.

Currently, the information required by investors is posted on the websites of each regional institute, i.e., is fragmented and not systematically integrated. This situation is a consequence of the established isolation of the institutions themselves, their different organizational-legal forms and jurisdictions. The undeveloped system of automation of actual infrastructure, engineering, communication and other resources of the region and municipalities leads to slow decision-making to enter the region. One of the options for solving the problem of information scarcity is building individual project trajectories. The entrepreneur enters the main indicators in the dialog window on the page of the Investment portal of the Russian region in a special tab and can view various options for the development of his idea along various trajectories involving RDIs (Fig. 3).

It leads to the emergence of a network of contacts during interaction. A business network of participants in regional investment projects could be formed through a specialized digital platform integrated into the region's investment portal, which would host a database of businesses that use RDI services.



**Figure 3.** The model of building individual project trajectories by regional development institutions (on the example of the Yaroslavl region)

Source: composed by the authors

This is how investors and manufacturers could find possible business partners to work with in the

region, and the RDI could send newsletters and provide services offering preferential conditions to users. But most importantly, the platform would allow for informal feedback on the quality of the RDI activities and their improvement. However, the establishment of an additional information system requires efforts of the regional administration.

### Discussion

Inadequate methodological frameworks, as well as numerous limitations in the legal and economic areas of RDis have repeatedly been studied in Russia (Tatarkin & Kotlyarova, 2013; Baranov et al., 2015; Budagov, et al., 2017; Novosyolov, 2020).

The decisive importance of the regional institutional environment for economic growth is emphasized in foreign scientific literature (Glaeser, et al., 2004; Aoki, 2007; Hall & Sobel, 2008; Xu, 2011). It is defined through the interaction of formal and informal institutions (Morgan, 2007; Raza, et al., 2019). Various methodologies have been proposed to measure the contribution of institutions to social development (Voigt, 2013).

Foreign studies have also been monitoring the phenomenon of the construction of business networks with technologies of exchange of ideas, projects through this format for a couple of decades (Legendijk & Cornford, 2000; Jansson et al., 2007; Acs et al., 2018). These informal associations are recognized as an effective regional institution that emerges from the principles of self-organization and information sharing (Leeds, 2009; Hawkins et al., 2016; Liu, 2016). According to the researchers, the government should be actively involved in these processes (Luedtke, 2005), including providing platforms for discussions, in order to receive live feedback on certain solutions, as well as timely support for business initiatives born in the network.

### Conclusion

In Russia, development institutions are usually understood as the activities of specialized organizations aimed at creating a favorable business climate. Over the past 15 years, more than 200 regional development institutions (RDIs) of various organizational and legal forms and functions have been established in the Russian regions. The diversity of RDIs makes it difficult to develop a unified approach to assess their contribution to the competitive position of the region; the analysis of absolute indicators of socio-economic development of regions in this regard can serve only as an indirect tool to assess the activities of RDIs.

Analysis of the activities of development corporations has shown that even within one group of institutions there can be regional differences. However, the absence of a legally enshrined norm of a Regional Development Institution gives rise to system-wide implementation problems common to all RDIs. Against the backdrop of increasing competition among regions for investment and the growing pace of digitalization, these problems require an urgent and comprehensive solution both at the federal level and at the level of constituent entities of the Russian Federation and on the part of the institutions themselves.

The study has shown that there remains a high level of controversy about the role of development institutions. Suggestions made on new tools in RDIs, such as strengthening informal communication, building business networks and using digital solutions, are of an applied nature. In the context of increasing regional competition, it is necessary to discuss more in-depth questions about the goals and strategic objectives of RDIs in understanding what are the practical ways to transform them to a more systemic image and to obtain effective mechanisms that contribute to the effective development of regional economies.

### References

1. Acs, Z., Estrin, S., Mickiewicz, T., & Szerb, L. (2018). Entrepreneurship, institutional economics, and economic growth: an ecosystem perspective. *Small Business Economics*, 51(2), 501-514. DOI: 10.1007/s11187-018-0013-9.
2. Aoki, M. (2007). Endogenizing Institutions and Institutional Changes. *Journal of Institutional Economics*, 3(1), 1-31. DOI: 10.4337/9781783476213.00026
3. Bakhtizin, A. R., Valentik, O. N., Bukhvald, E. M., & et al. (2015). *Development institutions as a tool of the regional economics*. Moscow: Institute of Economics of the Russian Academy of Sciences. Retrieved from:

[https://inecon.org/docs/Vilensky\\_paper\\_20151222.pdf](https://inecon.org/docs/Vilensky_paper_20151222.pdf) (in Russian).

4. Baranov, A. Yu., Malkov, E. S., Polischuk, L. I., Rokhlits, M., & Syunyaev, G. R. (2015). Measuring Institutions in Russian Regions: Methodology, Sources of Data, Analysis. *Voprosy Ekonomiki*, (2), 69-103 (in Russian).

5. Bondarenko, V. V., Tanina, M. A., Yudina, V. A., & Kharitonova, T. V. (2017). Development of Model of System of Regional Institutes of Development in the Conditions of Formation of the Innovative Knowledge-Intensive Economy. *Mir novoy ekonomiki*, (4), 88-98 (in Russian).

6. Budagov, A. S., Gagulina, N. L., Zhulega, I. A., & Novikov, A. V. (2019). Analysis of institutional transformations of the regional economy. *Actual'nye problemy ekonomiki i upravleniya*, 1(21), 46-54 (in Russian).

7. Chashkin, V. V. (2012). New Approaches to Classification of Development Institutions. *Finansovaya analitika: problemy i resheniya*, (33), 31-38 (in Russian).

8. Domnina, I. N., & Maevskaia, L. I. (2017). Regional Development Institutions in the Framework of the Strategic Planning of the Innovation Structure of the Russian Economy. *Vestnik Vladimirskego gosudarstvennogo universiteta imeni Aleksandra Grigor'evicha i Nikolaya Grigor'evicha Stoletovykh. Seriya: Ekonomicheskie nauki*, (2), 62-80 (in Russian).

9. Ergunova, O. T., Plakhin, A. E., & Fominykh, K. A. (2017). Regional development institutes and their role in modernizing the economy of the constituent entities of the Russian Federation. *Voprosy innovatsionnoi ekonomiki*, 7(4), 323-338 (in Russian).

10. Evans, R., & Harding, A. (1997). Regionalization, Regional Institutions and Economic Development. *Policy and Politics*, 25(1), 19-30. DOI: 10.1332/030557397782213765

11. Ezangina, I. A., Vodolagina K. S., & Malovichko, A. E. (2020). Regional institutions of development: structure, directions of activity, effectiveness. *Vestnik Instituta ekonomiki RAN*, (3), 129-141. DOI: 10.24411/2073-6487-2020-10034 (in Russian).

12. Frumina, S. B. (2017). Development institutions in the Russian legal field. *Finansovaya zhizn'*, (4), 19-23 (in Russian).

13. Glaeser, E., La Porta, R., Lopez-de-Silanes, F., & Shleifer, A. (2004). Do Institutions Cause Growth? *Journal of Economic Growth*, 9(3), 271-303. DOI: 10.2139/ssrn.556370

14. Hall, J., & Sobel, R. (2008). Institutions, Entrepreneurship, and Regional Differences in Economic Growth. *American Journal of Entrepreneurship*, 1(1), 69-96.

15. Hawkins, Chr. V., Hu, Q., & Feiock, R. (2016). Self-Organizing Governance of Local Economic Development: Informal Policy Networks and Regional Institutions. *Journal of Urban Affairs*, 38(5), 643-660. DOI: 10.1111/juaf.12280

16. Ivanov, O. B., & Bukhvald, E. M. (2018). Regional development institutions in the strategic planning system. *ETAP: Ekonomicheskaya Teoriya, Analiz, Praktika*, (1), 61-77. DOI: 10.24411/2071-6435-2019-10004 (in Russian).

17. Jansson, H., Johanson, M., & Ramström, J. (2007). Institutions and business networks: A comparative analysis of the Chinese, Russian, and West European markets. *Industrial Marketing Management*, 36(7), 955-967. DOI: 10.1016/j.indmarman.2007.05.013.

18. Kaliuzhnova, N. Y. (2011). Institutes of regional development and competitiveness in the conditions of modernization. *Ekonomika regiona*, (2), 57-64 (in Russian).

19. Komarova, O. V., & Chernya, D. A. (2020). Regional institutions of public-private partnership in the Ural Federal District: assessment of the level and prospects of development. *Upravlenie v sovremennykh sistemakh*, (4), 41-51. DOI: 10.24411/2311-1313-2020-10011 (in Russian).

20. Lagendijk, A., & Cornford, J. (2000). Regional institutions and knowledge: tracking new forms of regional development policy. *Geoforum*, 31(2), 209-218. DOI: 10.1016/S0016-7185(99)00031-7.

21. Leeds, B. A. (2009). The design and performance of regional institutions. *International Studies Review*, 11(2), 386-388. DOI: 10.1111/j.1468-2486.2009.00862.

22. Liu, J. (2016). Regional Institutions and Their Impact on the Connectedness of Firm's Innovation

Networks. *Institutions and Economies*, 8(1), 102-129.

23. Luedtke, A. (2005). Regional Institutions and Governance in the European Union. *International Studies Review*, 7(1), 101-103.

24. Matveev, Yu. V., & Matveev, K. Yu. (2015). Regional development institutions in a non-equilibrium economy. *Vestnik Samarskogo gosudarstvennogo ekonomicheskogo universiteta*, (7), 11-17 (in Russian).

25. Mitrofanova, I. V., & Pozhilova, I. V. (2018). Modernization of development institutions as a strategic direction for improving regional economic policy. *Teoriya i praktika obshchestvennogo razvitiya*, (7), 55-61 (in Russian).

26. Morgan, K. J. (2007). The learning region: Institutions, innovation and regional renewal. *Regional Studies*, 41(1), 147-159. DOI: 10.1080/00343409750132289

27. Nikitaeva, A. Yu. (2017). Regional institutional structure in the context of innovative industry development. *Zhurnal institutsional'nykh issledovaniy*, 9(1), 134-149. DOI: 10.17835/2076-6297.2017.9.1.134-149 (in Russian).

28. Novosyolov, A. S. (2020). Institutional environment of socio-economic development of municipalities. *Region: ekonomika i sociologiya*, (1), 200–232. DOI: 10.15372/REG20200109 (in Russian).

29. Raza, A., Muffatto, M., & Saeed, S. (2019). The influence of formal institutions on the relationship between entrepreneurial readiness and entrepreneurial behaviour: a cross-country analysis. *Journal of Small Business and Enterprise Development*. 26(1), 133-157. DOI: 10.1108/JSB-01-2018-0014.

30. Rodríguez-Pose, A. (2013). Do Institutions Matter for Regional Development? *Regional Studies*, 47(7), 1034-1047. DOI: 10.1080/00343404.2012.748978.

31. Sahasranamam, S., & Nandakumar, M. K. (2020). Individual capital and social entrepreneurship: Role of formal institutions. *Journal of Business Research*, 107, 104-117. DOI: 10.1016/j.jbusres.2018.09.005.

32. Tatarin, A. I., & Kotlyarova, S. N. (2013). Regional development institutions as an economic growth factors. *Ekonomika regiona*, (3), 9-18 (in Russian).

33. Voigt, S. (2013). How (Not) to Measure Institutions. *Journal of Institutional Economics*, 9(1), 1-26. DOI: 10.2139/ssrn.1336272.

34. Xu, Ch. (2011). The Fundamental Institutions of China's Reforms and Development. *Journal of Economic Literature*, 49(4), 1076-1151. DOI: 10.2307/23071664.

© Elena G. Patrusheva, Anna V. Rajhlina, 2021

Received 01.05.2021

Accepted 01.07.2021

# STRATEGIZING THE MUSIC INDUSTRY: TRENDS, PRINCIPLES AND PRIORITIES

Anna S. Khvorostyanaya 

Center of Strategic Studies at Lomonosov Moscow State University, Russia  
E-mail: Khvorostyanayaas@gmail.com

Gevorg N. Tevanyan

Lomonosov Moscow State University, Russia  
E-mail: Tevanyangn@gmail.com

**Abstract.** Subject: the music industry as a part of the creative economy. Goals: theoretical foundations determination of the strategy development and implementation of the music industry and its actors. Methodology: we used the methods of economic analysis, synthesis, comparison and benchmarking. For strategic analysis, the well-known concepts of strategic marketing and branding are used, as well as the methodology of strategizing by Foreign Member of the Russian Academy of Sciences (Life-time), Dr.Sc. (Econ.), Professor of Political Economy, Honored Fellow of Higher Education of the Russian Federation – title given by the President of the Russian Federation V.L.Kvint. Results: the study identifies the features of the functioning of music industry brands, substantiates the theoretical foundations of developing a strategy for music industry brands, analyzes global trends in the development of the music industry. The authors also developed a strategic communication system for a music brand. Application and conclusions: the conducted research has an applied orientation and can be used by all actors for their long-term strategic development.

**Keywords:** strategy, music industry, strategic communications system, trends.

**JEL codes:** O33, O34

**For citation:** Khvorostyanaya, A. S., & Tevanyan, G. N. (2021). Strategizing the music industry: trends, principles and priorities. *Journal of regional and international competitiveness*, 4(3), 79-92. Retrieved from <http://jraic.com/index.php/tor/article/view/60>

**DOI:** 10.52957/27821927\_2021\_3\_79

## Introduction

The modern music industry is a complex of socio-economic agents involved in the development, promotion and sale of various musical products. The music industry is a part of the entertainment industry, which also includes the films, computer and video game industries, the book industry, television, radio and gambling.

The development of the music industry as a cultural and creative business directly depends on its constituent parts: record companies, musicians, tour organizers (booking companies), concert halls and music clubs, music TV and radio channels, companies directly involved in the marketing of music products. Thus, the most of the market actors in the music industry are engaged in various economic activities to make a profit. We can characterise the music industry as having intense competition. Many organisations of the industry are keen to make use of all the available tools to increase competitiveness. One of the tools is the development of meaningful music brands through the design and implementation of a strategy.

There is an urgent practical and research task to examine aspects of music brand strategy development and to identify its main elements of a strategic communications system.

## Results and discussion

### 1. Specific features of the functioning of music industry brands

The most important strategic development priority for companies of the music industry is the establishment of successful music brands, which is based on analysing and applying a whole range of strategic marketing tools. As a brand in the music industry market may be a particular artist, band and their musical works, a record company's trademark and other products having high consumers demand and can be

economically productive.

By theoretical studies on marketing of goods and services strategy, brand building is the one of the elements of a company's marketing management, irrespective of its sectoral affiliation. Any brand has a number of competitive advantages by which consumers can identify brands by their distinctiveness and their own experience of buying and using goods and services. In marketing management, the development of a unique brand and its further launch into the marketplace is called branding.

Today's music industry is a complex industry involving many actors. They share the artistic and commercial aims of creating musical products and marketing them using all possible marketing channels.

The modern music industry attracts a large number of researchers who study issues of various kinds:

1. the specificities of industry functioning in sectoral and regional contexts (Astapov & Khvorostyanaya, 2021; Aryandari, 2021; Cusic, 2019; Cloonan & Williamson, 2017; Dyce & Smernicki, 2018);
2. business modelling of the whole industry and its individual actors (Joshi & Patole, 2019; Fox, 2004; Berry, 2021; Russ, Kuilboer & Ashrafi, 2016);
3. the strategic impact of trends, tendencies and regularities (Owen (Baldock) & O'Dair, 2020; Hujran, Alike & Durrani, 2020; Snezhinskaya, 2018);
4. The commercialisation of technology and the innovation capacity of the industry (Zilber, 2016; Nordgaard, 2018; Mozumder et al., 2021).

The music industry has changed considerably in the past few years, aided by the rapid development of innovative technology, primarily thanks to the Internet. The main functions of organisations involved in the music industry are:

- the creation of music;
- the recording of music;
- replication of media and their subsequent sale;
- digital music distribution;
- organisation and management of concerts;
- the development and promotion of music brands;
- production and sale of musical instruments and sound equipment.

For many years, the work of the actors in the music industry has remained unchanged. This market was controlled mostly by major record companies with the rights to produce, promote and commercially distribute musical works. The main source of record companies income is a percentage of sales of performers' records. Until the beginning of the 21st century, this business model focused primarily on the production, replication and subsequent sale of musical media: vinyl records, audio cassettes and CDs. Since 2002, the situation has begun to change dramatically with the rapid development of digital technologies and the gradual transition to new formats of the musical works distribution.

Figure 1 shows the dynamics of the global music industry from 2002 to 2019.

By the graph, market volumes remained at the same level throughout 2002-2006. This period was characterised by a high level of record company activity and the appearance of a large number of commercially successful music projects with long-term contracts with the record companies. Since 2004, the first commercial digital music formats have begun to appear in the music industry's market. Their revenue in 2004 was to US\$400 million (approximately 2% of the total market). By 2012, it was \$4.2 billion (28.5% of the total market). By 2012, it was \$4.2 billion (28.5 per cent of the total market).

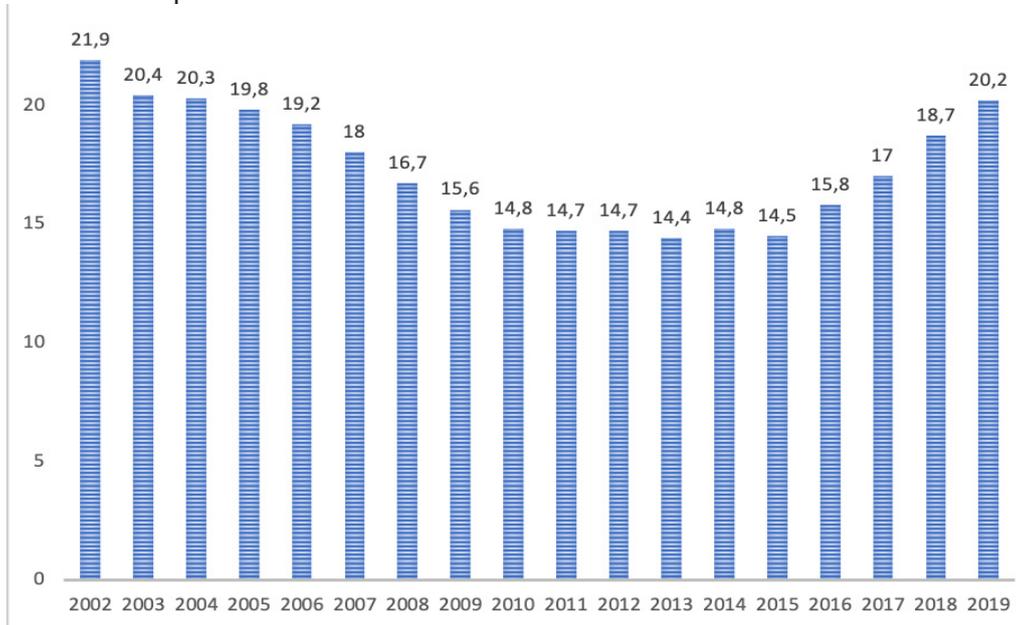
The main elements of the business model used by most record companies today:

- 1) The production and replication of musical works;
- 2) Strategic marketing of brand development and promotion;
- 3) A set of distribution channels: physical media, digital distribution, realisation of a set of copyrights, organisation of concert activities.

Record companies remain the main market players in the music market today. Their market success is largely determined by the number of contracts with popular musicians and the effectiveness of the various music brand development strategies. The market structure of the industry is oligopolistic. But recent years the

music market has been operated by 3 major multinational recording corporations:

- Universal Music Group;
- Sony Music Entertainment;
- Warner Music Group.



**Figure 1.** Dynamics of global music industry market size from 2002 to 2019, (US\$, bln.)

Source: IFPI Global music industry report 2019

As of the beginning of 2020, these companies control more than 85% of the music industry market, and most of the famous artists from different countries have long-term contracts with one of the above-mentioned record corporations.

In order to operate successfully in the market and meet their strategic goals and objectives, record companies take a strategic approach to the formation and promotion of music brands.

## 2. Theoretical basis of strategy development for music industry brands

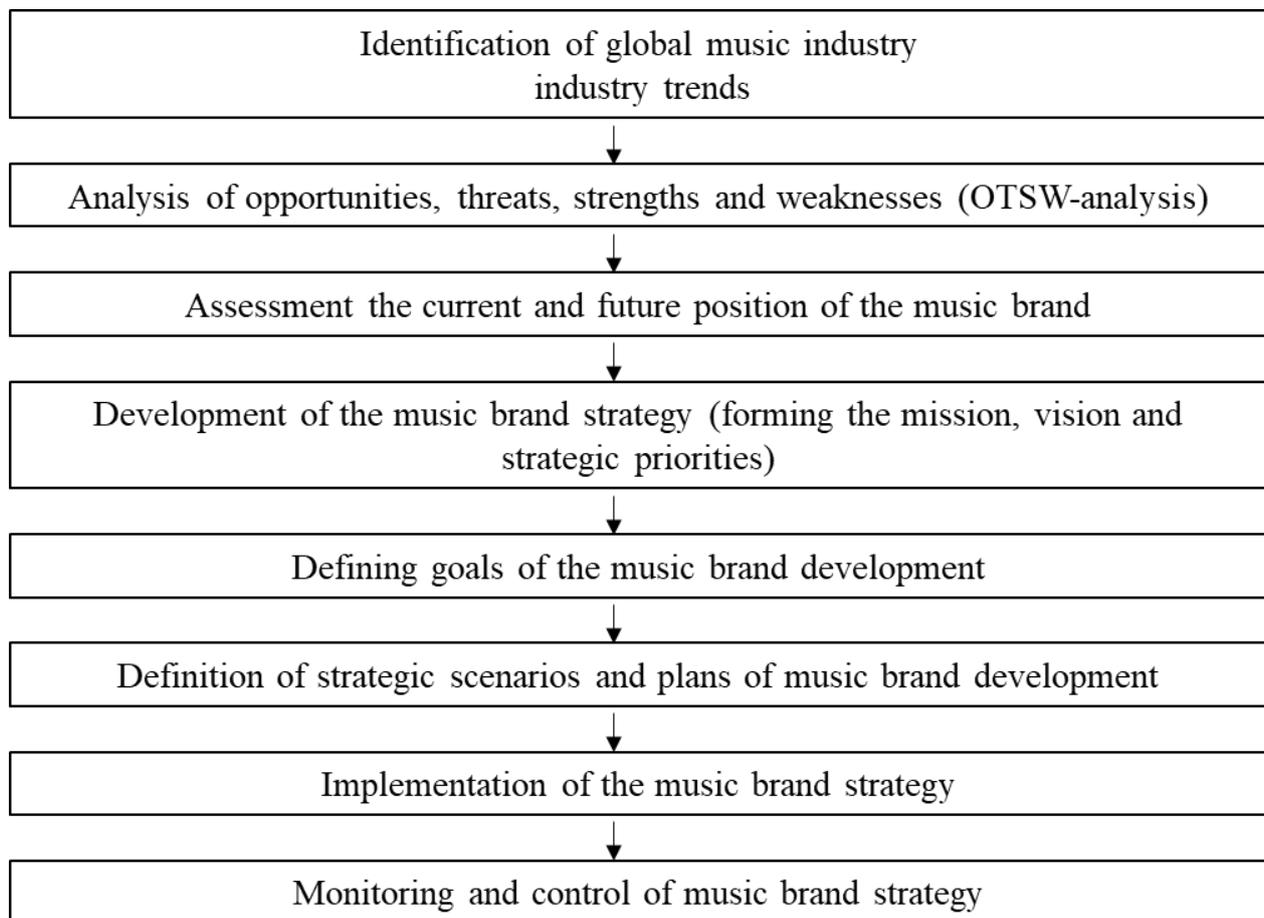
The brand strategy in the music industry is crucial to the total concept of strategic development of all actors in the market. Methodologically correct strategy of music brands significantly increases their chances of commercial success. It is the basis for increasing the competitiveness of companies operating in the music industry market. Before considering a conceptual approach to the implementation of a music brand strategy, it is necessary to define the meaning of 'strategy'.

The famous American marketing and management expert F. Kotler viewed the concept of "strategy" from a marketing point of view. By 'strategy', Kotler meant a set of logically structured activities aimed at solving the market challenges faced by an economic entity. He did not point out that any economic entity must have a strategic mission and a set of strategic goals. Thus, the Kotler's definition does not reflect the meaning of 'strategy' (Kotler, 2019).

Professor of the University of Alabama Arthur A. Thompson defined strategy as a formulated and approved plan for managing an organisation in the prevailing market conditions to meet consumer demands comprehensively (Thompson, 2018). Thompson's definition largely reflects the meaning of modern strategy, but focuses on the current business environment and does not consider the prospects of strategic development of an economic agent in future.

The most complete definition of the term 'strategy' is that of Academician V.L. Quint. He defines a strategy as a set of activities in the field of searching, formulating and implementing the concept of management of organizations based on its mission, goals, objectives and strategic priorities in the current and future business environment (Kvint, 2019).

The process of establishing and realising of any strategy, including a music brand strategy, is based on a sequence of strategic steps. The strategy algorithm for music industry brands is shown in Figure 2.



**Figure 2.** Algorithm for developing a music brand strategy in the market

Source: Kvint, 2019

The first strategy phase is an analysis of global and industry market trends in the music industry. In establishing and promoting a music brand, global and industry trends occupy an important place, as they determine the total strategic development vector of the industry. By the strategic analysis of global and industry trends, the company identifies what music brands are able to achieve market success.

One of the trends of mid-2000s was the music industry digitalisation. Demand for physical media declined significantly in that period and is still declining today (in 2019, physical media in the music industry represented only 21% of the total market, down from 55% in 2010 and 98% in 2001). But digital is the main format for selling music brands' products, a new global trend in music content distribution - digital streaming (audio streams) - is currently gaining popularity. In it is the provision of access to music through the use of various commercial services (Apple Music, Google Music (from December 2020 - YouTube Music), Yandex. Music, etc.). The consumer is able to access music without limit through the use of the Internet, either for a fee or free of charge. Paid subscribers pay a monthly fee to access audio content and to download it to any computer device (desktop computers, mobile phones, tablets, etc.). A free subscription means the user has limited access to audio content. In the contrary he is required to receive additional promotional content while listening.

This global trend is related to the increasing number of computer devices worldwide and the increasing speed of access to the global network, including through the use of mobile internet. These technologies allow consumers to access audio libraries online no matter where they are.

The streaming audio market was US\$11.4 billion at the end of 2019 (more than 56% of the total music industry market).

The second stage of strategic planning involves an OTSW analysis of the music brand, which considers its market opportunities and threats, strengths and weaknesses. The promotion of specific brands of music (musicians and the works they produce), the opportunity to maximise their popularity among listeners is subject to primary assessment. Thus, the development of a music brand strategy considers various communication channels, including the possibility of presenting works on popular thematic resources, participation in popular entertainment shows with a large TV audience, distribution of works through social networks, etc.

The OTSW analysis helps to identify the current and future status of the music brand and to assess the future market opportunities and competitive advantages.

Developing a music brand strategy involves establishing its mission and strategic plan. Developing of a music brand mission is a complex process, due to the personalized nature of perceptions of music works and brands. Every music consumer has his own preferences in music style, genre, etc. In this regard, the development of a music brand's mission should take into account the specifics of the consumer audience, contain a specific value and benefit.

Music companies usually formulate the strategic priorities are formulate during the development of a music brand strategy. These priorities may differ for older and newer brands. The strategic priorities of a music brand can be related to reaching the maximum possible audience, developing the performer's brand-community, maximising the number of appearances in rating TV and radio programmes, attracting sponsors to make additional investments in promoting the music brand.

Also music companies formulate the specific brand development goals and objectives based on the strategic priorities. The goals of the music brand strategy are qualitative. They based on the total strategic vision of the brand in the current and future periods. The tasks within the goals should be qualitative because they form the basis for developing a strategic plan for the music brand - specific activities related to brand positioning and promotion in the market.

The music brand strategic plan is used during the implementation phase of the strategy. The specific tasks of a strategic plan for a music brand might include:

- regular rotation on a certain number of thematic radio stations;
- certain number of downloads of a music track on streaming audio services;
- certain number of views/listens to the song on social media resources, etc.

The strategy is monitored and controlled at the end of its implementation phase. At this stage, the results obtained during the implementation of the strategy are benchmarked against the planned indicators. If the tasks have not been completed, we have to make an additional research to identify the key causes (factors) having a negative impact on the promotion and development of the music brand in order to further adjust the strategy and improve the results.

### **3. Global trends in the music industry development**

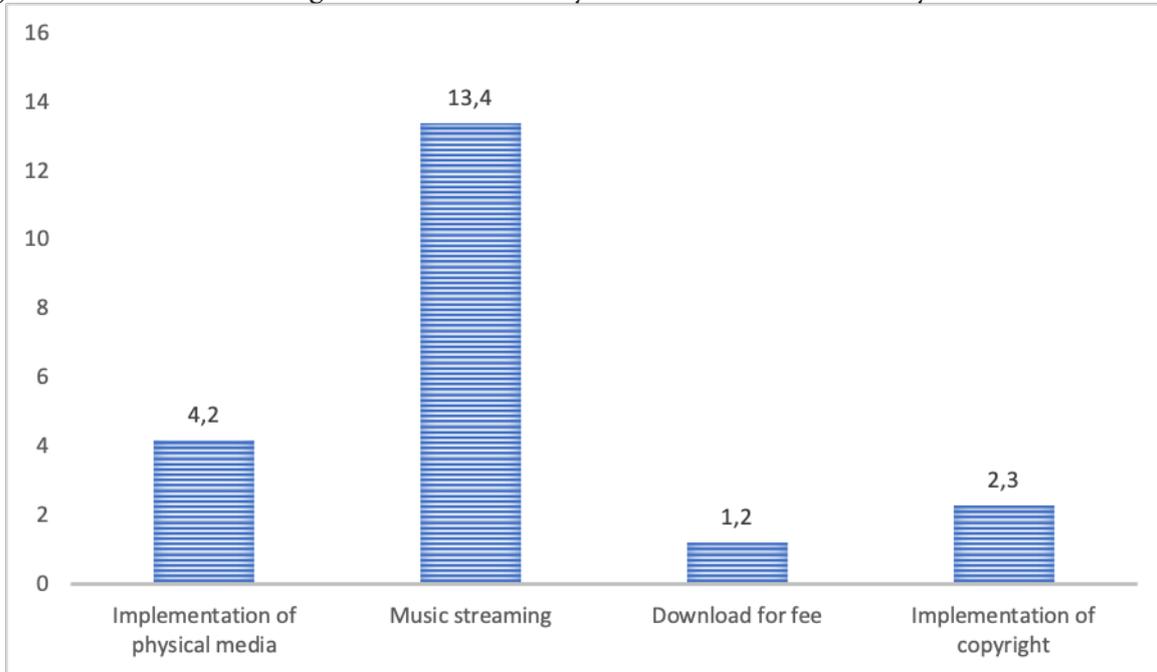
The modern music industry is a specific area of the entertainment and media market. Also it is the one of the fastest growing markets in recent years. Nowadays, the entertainment industry is in a transitional phase of its development, largely driven by global digitalisation. The development, implementation and active use of digital technologies are changing the way people live and digitising most processes, including various services. Recent years the media industry, which includes the music market, shows a positive trend. By estimates, the industry is expected to grow at a rate of 4% to 5% through 2023 and the total media entertainment market will reach US\$2.6 trillion (Media Outlook. PwC Report 2019, 2019).

A characteristic features of the industry in recent years is an active cooperation with companies in other sectors, primarily financial and telecommunications, to create new business models target to increasing the loyalty of the audience and, as a result, increasing the effectiveness of the media sector commercialisation.

As the music industry recognizes the importance of current trends and changes in traditional consumption patterns, it have to develop and implement new models of interaction with consumers and update innovative approaches to the development and promotion of media products in a competitive market.

Digitalisation is the most important global trend for the music industry in 2020. PwC's annual 2020 study notes that the gap between digital and non-digital sources of income for the total media industry has grown radically in the face of the pandemic. In fact, during the isolation, which has become a major limiting measure in many countries, including the Russian Federation, the digital media segment has become one of the few market segments to show positive dynamics.

Figure 3 shows the level of global music industry market income in 2020 by selected sectors.

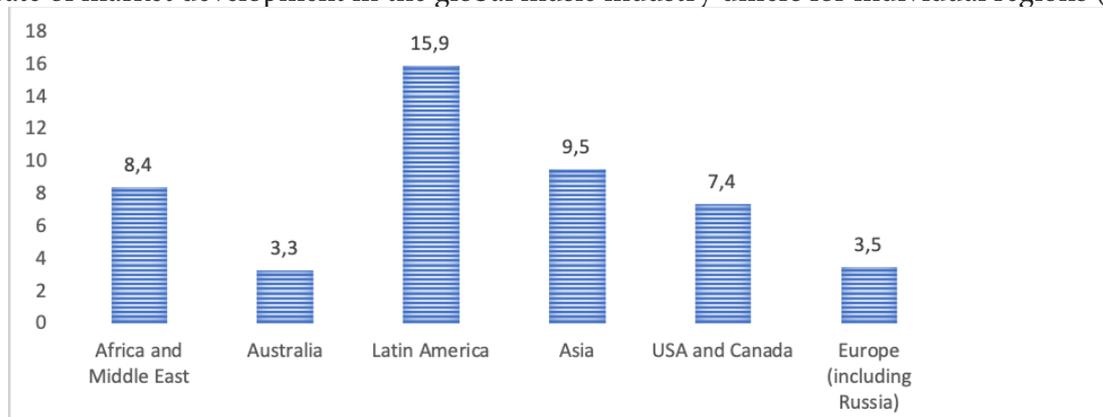


**Figure 3.** Global music industry market income in 2020 by selected sectors, (US\$, bln.)

Source: GMI Report 2020

The music streaming shows the steady growth rate every year over the past few years, with a record 19.6% increase between 2019 and 2020 (from \$11.2 billion to \$13.4 billion). Music streaming was the only format to show growth over the past year, with other formats showing a decline of between 5% and 15%. It can be explained by the consumers' behaviour. Most consumers are listening to music and other audio content on mobile devices. The sales show the positive results every year. The most of the mobile devices based on the Android and iOS operating systems. Each of these operating systems uses its own application system, including music subscription services. The mobile device uses to play audio content when there is access to the network.

The rate of market development in the global music industry differs for individual regions (Figure 4).



**Figure 4.** Music industry market growth rate by world region, % (2020 to 2019)

Source: GMI Report 2020

The music streaming business model is the ultimate evolutionary stage (Figure 5).



**Figure 5.** Global music industry evolution of business models

*Source: composed by the author*

Global music industry evolution of business models has paralleled the development and widespread implementation of new information technologies. In the mid-2000s digital formats replaced the physical media. These digital formats allowed users to download music for a fee. This format offered unlimited access to audio content, but was largely unprofitable for artists and labels, as it popularised the illegal distribution of content online. Once purchased, content could be replicated digitally and distributed illegally. The rise of "piracy", low income determined the transition to a new modern format - music streaming with digital downloading options. This business model is based on conditional free and paid subscriptions. The main advantage is the providing of different monetisation approaches. Services monetise access by providing advertising from partner organisations, generating income through advertising when conditional free subscriptions are used. The service earns part of this income as its own income. The part of this income is used to pay copyright to music labels or to individual musicians. In the most cases, paid subscriptions provide access to audio content without integrated advertising and remove various restrictions on the use of this content, such as the ability to download it to the user's device in order to listen to it offline.

The consumption of audio content predetermined the success of music streaming services. In most cases, streaming is considered by consumers as a priority listening format due to the following:

- if the network is accessible, the consumer has the possibility not to download the audio content;
- streaming provides a user-friendly interface (the mobile application) for searching for audio content and playlists.

Labels and musicians are also interested in using streaming services. It allows them to popularise their work and earn a steady income from copyrights.

Another important global trend is the development of a communication process between members of the music industry and the target audience. As modern technology allows rapid and effective communication with consumer audiences, the music industry has also embraced the use of a range of these technologies to communicate with the target audience, identify their preferences, and conduct initial non-commercial distribution of content.

Mostly this trend is being realised through the high activity of both labels and individual musicians on various social media and online services. The most popular are Facebook, Instagram, TikTok, etc. The main challenge the music industry faces in using electronic consumer communication channels is to establish the community and maximise the number of fans. Increasing the number of subscribers allows music marketers to make use of modern communication techniques associated with word-of-mouth marketing. This technology actively involves consumers in the communication process and disseminating information about the artist, their concerts, new tracks and so on through reposting and sharings. The audience posts information on their own social media profiles independently. It allows to attract the maximum number of users in a relatively short period of time.

The realisation of this mechanism usually involves various participation activities such as raffles, quizzes and others.

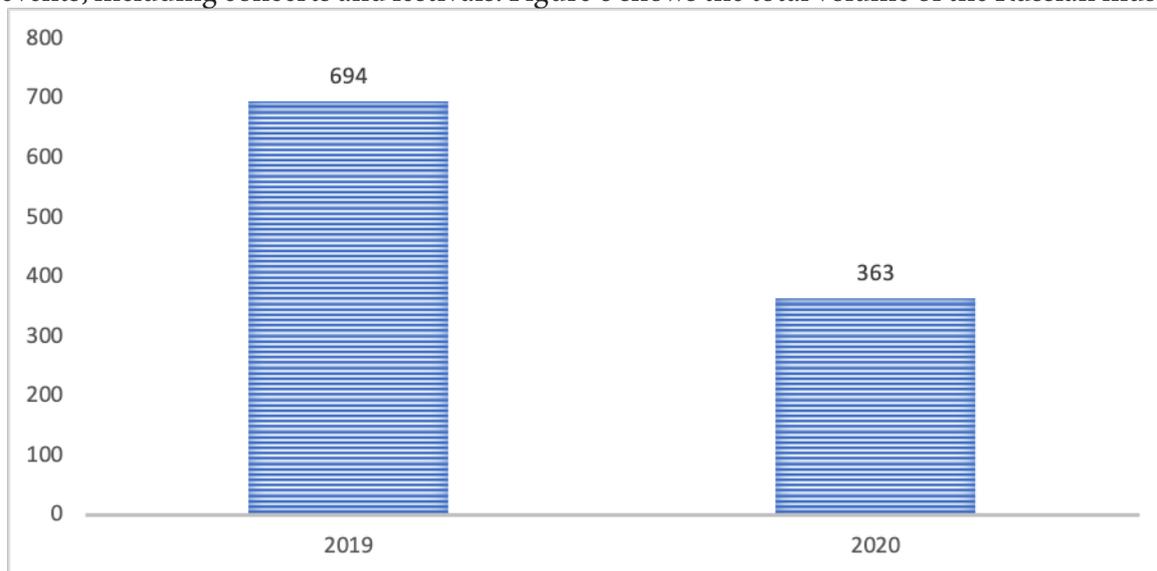
The additional promotional tools are the musicians' personal profiles. They post additional content also attracting the interest of the audience. This includes audio and video content from sessions, recording new tracks and albums, shooting video clips and so on. Musicians often use live video streaming through various social media services. These services include the live communication with the target audience.

All these trends are commercial. The increasing of the number of subscribers through active communication increases the number of potential consumers of streaming services and the level of popularity of labels and artists.

#### **4. The music industry development trends in the Russian Federation**

The Russian music industry traditionally developed through active concert and festival activity. In Russia this trend developed historically. The main mode of commercialisation of musical projects in the Soviet Union was based on regular concert activities. It generated the main income both for record companies, which held legal rights to performers' content, and artists, who worked mostly on a fee-for-service basis.

2020 became a serious test the music industry. The pandemic was the reason of mass cancellations of cultural events, including concerts and festivals. Figure 6 shows the total volume of the Russian music market.



**Figure 6.** Average subscriber fee for mobile and residential internet in regional centres of neighbouring regions, 2020 (RUB)

Source: PwC Media Outlook 2020

As concert activity was and still is limited for most market players, the main source of income during this period was the active development of digital tools. The main is music streaming – a way of distributing music content (audio and video) without the use of physical media. This service allows to download the content to the user's devices (personal computer, mobile devices) at any time, as long as they have access to the Internet. Industry experts predict that music streaming will become a major industry trend over the next few years, with the share of live music shrinking by 20-30%. By the analytics of 2019, the Russian music recordings market cost is \$156 million. The market is projected to grow at an average annual rate of 20-22%. The main trend contributing to such growth will be the development of music streaming, which has recently become the main channel for the distribution of musical works. Nowadays, the Russian market is 80.7% of the total music recordings market (US\$ 126 million), and in the next five years this share could rise to 95-97% and almost completely displace all types of physical music media. The consumer audience regards physical audio media as antiques. The number of retail outlets for such products in the Russian Federation declined to a minimum over the past few years.

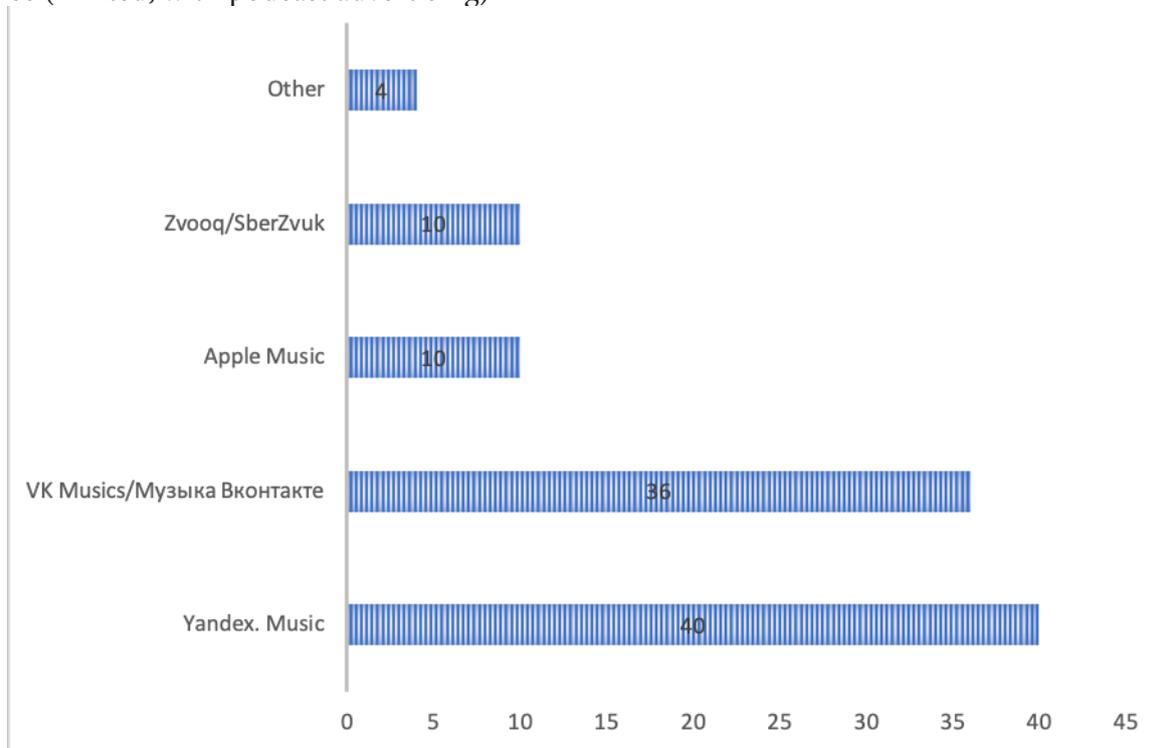
Figure 7 shows the largest Russian streaming platforms by audience share

The major foreign music streaming platforms develop the new services although there are a number of dominant companies in the market.

In the summer of 2020, Spotify (Sweden), the largest foreign streaming service, entered the Russian market along with the markets of Ukraine, Belarus and Kazakhstan. This service considered the Russian market as one of the most promising and profitable strategic development markets during the pandemic. Spotify's total subscribers were 286 million at the end of 2020. 130 million are premium subscribers and pay a monthly fee for the service.

Its important strategic advantage is the use of a price differentiation tool, which aims to actively attract the target audience through flexible tariffs. The monetisation of any online service is a very important element of the market strategy and determines the total income level. Spotify developed differentiated tariff plans for the Russian market:

- Premium (169 rubles a month);
- Family (269 rubles a month);
- Student (85 rubles a month);
- Free (limited, with podcast advertising)



**Figure 7.** Share of streaming music platforms in the Russian Federation, 2020

Source: PwC Media Outlook 2020

The high popularity of the service worldwide and the active growth of musicians' interest to digital positioning and promotion allow Spotify to developed a special service for artists. it helps them to receive statistical information about their tracks, audience and communicate with them directly.

In September 2020 Sberbank bought Zvooq.ru, the one of the first music streaming services in Russia. Sberbank made a strategic decision to integrate the music service into its own ecosystem. Today the name of the service is SberZvuk and it is part of subscription to the bank's non-financial services.

Also there is a segment deals with the sale of artists' rights to public broadcasting of musical works. Its market volume was USD 19.7 million in 2020. The activity of audio branding companies was a major factor of the music industry growth. These companies effectively mediate between rights holders and companies that are interested in acquiring rights to music for further use in their activities. For example, for advertisements sounding or as soundtracks for films.

The pandemic significantly reduced the industry's income from concert and festival activity. All major mass events have been cancelled, including annual music festivals (Picnic Afisha, Usad'ba Jazz, Alfa Future People, Aliye Parusa, Nashestviye, VK Fest, Rock nad Volgoi, etc.). These events attract large audiences every year. The public authorities are supporting them as a part of regional social policies. For example, Europe's largest one-day rock music festival, Rock Nad Volgoi, had an audience of 300,000 to 500,000 people. There was a record in 2013 - 692,000 spectators attended the festival.

However, many musicians used this time to organise online concerts through various online streaming services (Okko, Yandex and others) in order to promote their creativity and positive image. These collaborations provided a series of free live performances, which have attracted a large number of spectators. For example, the concert of the rock band Bi-2, hold via Okko video streaming, attracted a large online audience (more than 2.5 million people). By its own streaming service the social network Vkontakte realised a week-long festival, VK Fest, attracting over 41 million viewers from more than 200 countries around the world.

Last years the separation of popular artists from music labels is an important trend of the Russian music industry market. It is related to the artists' desire to achieve commercial autonomy which would allow them to increase their income from the sale of musical products. The basis of commercial interaction between an musicians and a label is a contract signed for a specific period of time, within which the rights to musical works, fees from live performances and sales of music compositions in digital format and on physical media belong mainly to the music label. Under the terms of the contract, a part of the artists' commercial income goes to the label, holding the rights. The artist will be required to perform a certain number of concerts, participate in major festivals and release the songs at a certain interval. And the label commits to providing information and financial support for the artist, which includes:

- payment of various items of expenditure (music equipment, services, transport, accommodation, etc.)
- realisation of a set of marketing promotional activities (advertising, public relations activities, communication activities);
- looking for collaborative activities opportunities (recording tracks together, finding composers, musicians, etc.).

By various sources, many music labels took 40-70% of an musicians' income. So they refuse to cooperate with labels is primarily explained by commercial reasons. The main driver of this process is digitalisation. When becoming popular, many musicians promote themselves through numerous online channels, including social media and services that allow them to post audio and video material in a convenient format. The active development of streaming services also contributes to the self-promotion of musicians through the availability of music charts - ratings of the popularity. The Russian musicians want to develop their own images. But in most cases music labels manage this process based on studies of current global trends and consumer audience behaviour.

The increasing independence of musicians has a significant impact on the music industry and provide a number of new industry trends. Firstly, an musicians' promotion and level of income are directly depend on their digital activity and the amount of online media content. It effects positively on the audience, increases the musicians' media potential and popularity.

### 5. OTSW analysis of the music industry in the Russian Federation

The global and domestic trends determine the development of the music industry in the Russian Federation. But in recent years the global ones have become increasingly important. They focus on improving the quality of the business models and target to improve the cost-effectiveness of all market players. The commercial success of the music industry market plays a major role both for the market itself and for the development of musicians and labels.

In order to understand the strategic prospects of the music market, it is reasonable to conduct an OTSW analysis to identify opportunities and threats to the development of the Russian music industry and determine its main strengths and weaknesses (Table 1).

**Table 1** – OTSW analysis of the Russian music industry

Features	Threats
Digitalisation of music content	The increasing level of competition between labels and artists Increasing competition between online services Decreased quality of content
Developing of music brands strategic communications system	
Multichannel marketing system through the interest of large corporations in building their own ecosystems	
Strengths	Weaknesses
Market potential	Low public capacity to pay Issues of copyright legal regulation High share of illegal content
An developing system of strategic communications	

Source: composed by the authors

The main strategic opportunity for the music industry market for the Russian Federation and other countries is the active transition of its participants to a digital format. The COVID 2019 pandemic limiting concert activity reinforced this opportunity, reflected in an increased level of demand for online services. Many musicians are actively using the online format to promote their own brand and to communicate with consumers.

The development of communication technologies in the Russian Federation is associated with the most important priorities of the national programme "Digital Economy" – cultural and entertainment services are becoming available to a larger number of potential consumers. But there is an objective risk for the Russian market. It can be the increased internal competition between services. Many large Russian corporations began to pay attention to the digital services, which are the foundations of digital ecosystems. This trend originates from the desire of large companies to diversify their business based on current market trends related to the digitalisation of various business areas. Large market players bought the music services in order to form a portfolio of their own brands and provide a wide range of services. Sberbank is an example of this market trend - the company aims to diversify its business portfolio by introducing various non-financial services for its clients in order to generate new sources of income.

The development of telecommunications technologies and high-speed Internet access enhanced the communication strategy and marketing opportunities for musicians. The active social media promotion reduces the time for the new artist's track launching. But there is a risk of a rapid decline of the quality content being and its clear commercial nature. For example, the active involvement of the commerce in promoting of brands through the musical audio and video content of popular artists is a serious problem. Consumers interpret this as advertising content. So it is causing a negative reaction to the artist's or music label's work.

The great problem of the Russian market is the low consumer demand. Despite the online music services offer quality content and a differentiated approach to pricing their services, the level of demand for these services is still significantly lower than in the US and Europe. The another problem is illegal content as Russian consumers prefer to the legal one. The Russian legislation has little or no regulation of copyright infringement for consumers of content, And the level of illegal content remains relatively high. The possibility to obtain music and also any other entertainment industry content for free in Russia reduces the desire to buy relatively inexpensive online services. This problem can be solved only by strengthening of existing legislation for individuals.

## **6. Developing a strategic communications system for a music brand**

Thus, the most important challenge for companies and brands operating in entertainment industry is applying the right methodological approach to their own development. As discussed earlier, establishing a communication system for a music brand is a strategic aspect of enhancing its competitiveness. The communication solves many problems related to brand promotion, expanding the target audience and increasing the project economic effectiveness.

The communication is essential for a music brand and successful implementation increases brand value for consumers, resulting in higher sales and more effective commercialisation of music products. The main goal of music industry communication system is to provide audience growth through the development and distribution of information and the active use of other marketing methods. The effectiveness of a music brand communication system depends on the strategic approach of its further development.

The economic actor (music label or individual artist) is able to identify the key strategic priorities by using the tools of strategy in the design of a music brand communication system. It allows to achieve the market success and realise the key development goals.

The strategic characteristics of a music brand communication system consist of:

1) Using digital channels to communicate with target audiences allows a music brand to take a strategic approach to its development and generate a unique competitive advantage, which is very important for publicity increasing and audience loyalty;

2) We should take into account the modern regional market trends, when developing a concept for a

music brand's strategic communication system;

3) The strategic success of a music brand is in maintaining the necessary level of publicity by creating awareness and regular communication through various tools, including social media;

4) All possible communication platforms should be used to promote the music brand and ensure equal access in order to reach the maximum target audience.

### **7. Strategic priorities for establishing a music brand communication system**

The strategic communication system of any brand, including a music brand, deals with a number of important strategic tasks related to promotion and commercialisation. These challenges resolving enhances both the social and economic effectiveness of the brand and makes it relevant to the competitive market. By contrast with the market for consumer goods/services, the music industry is largely driven by the current tastes of listeners. This change is impossible to predict from a scientific point of view. In this regard, the development of strategic priorities for a music industry brand is probabilistic, but also takes into account existing trends in music brand development practices both internationally and in the Russian markets.

Strategic Priority No. 1. Development of digital distribution channels by maximising coverage of popular services.

Many services provide the digital music distribution in Russia, the most popular are Yandex.Music, the Mail.ru music ecosystem, Spotify, and many others. For most musicians, there are 3 ways to collaborate with these services:

- 1) posting through the label;
- 2) self-posting through the paid services;
- 3) self-posting through free services.

In case of placement through a label, the label conducts the digital distribution itself, but the musician will have to pay a charge by the terms of the contract. The charge is defined individually for each singer and depends on many parameters, but on average in Russia it ranges from 30% to 50%. Thus, the label can take up to 50% of total musician's income for placing songs on digital distribution services.

If the musician is self-hosting, the services accept tracks for posting only through official partners (ONErpm, AWAL, UnitedMaster – paid agents), FreshTunes, Amuse - free). Paid services are fast and offer additional services for musicians, and their fees range from 10 to 15% of the musician's income. Free services do the hosting for free, but are monetised by providing various services by track promotion, attracting additional audiences, additional track processing, etc.

Table 2 presents income from track placement on digital distribution channels in the Russian Federation.

**Table 2** – Level of track listening fees on streaming services in Russia

Service	The price of 1,000 auditions according to data of the beginning of 2020, rub.
YouTube Music Premium	280
Yandex Music	60
Spotify	160
Apple Music	160
Google Music	150

*Source: composed by the authors*

But the data in the table are also relevant for private singers. For well-known artists and the labels that represent them, the rates of digital services may vary. However, the realisation of the strategic priority will increase the level of income from audio content distribution.

Strategic Priority No. 2. The promotion of digital channels of communication with consumers through the development and support of the music brand's social media profiles.

The second priority proposed by the author of the paper is the promotion of digital channels of communication with the consumer. The popularity of music brands and independent artists largely depends

on the number of their fans. The modern world today can be characterised by a strong shift towards communication through digital formats. The promotion of brands in social media is a strategically important step to ensure a positive fan dynamic, which will be reflected in an increase in the number of followers and members of the brand's official social media communities. The world today is characterised by a strong shift towards communication through digital formats,

The realisation of this priority lies in increasing the number of publications about the music brand, regular posting of industry news and artists, which has a positive effect on the number of newsbreaks and attracts special attention to the brand. Modern artists who have become popular in the Russian Federation actively support personal blogs and social media pages, posting a variety of content for their fans, which allows them to constantly keep the necessary level of engagement and inform them about important upcoming events (concert, track release, etc.).

As an example in the Russian music industry is the active use of communication channels by popular Russian singer Yulia Zivert (Zivert), who used a YouTube channel to post her music in 2017. The channel now has an audience of more than 777,000 people and a total number of views of more than 629 million. In 4 years, the singer has managed to build a loyal audience. The successful integration of social media and digital distribution tools has enabled her to succeed in the Russian market - the singer's compositions topped the charts on many online services throughout 2019-2020.

Thus, we can conclude that a strategic communication system when forming and developing a music brand should be implemented through a combination of different tools, which can attract an additional audience of listeners and fans. This will successfully monetise the content being posted through cross-posting.

Strategic Priority No. 3. Popularise the music brand by increasing activity in non-core (non-music) directions.

In a competitive environment, many music brands (both labels and individual artists) need to develop new promotional tools. The strategic directions can be considered:

- participation in the advertising campaigns of commercial organisations;
- participation in socially important projects supported by the state and public authorities;
- actively maintaining their own blogs (both for promotion and monetisation);
- participation in media projects.

These trends positively influence the level of awareness of the target audience and increase the number of information occasions, which leads to an increase of the socio-economic effectiveness of the music brand in both domestic and foreign markets.

## Conclusion

The music industry today is a dynamic creative industry, driven by current trends. The strategy as a long term system allows to interact with other market actors, which is essential for improving social and economic efficiency. The practical recommendations proposed by the authors in the field of music brand strategy and strategic priorities have the significant value.

## References

1. Astapov, K. L., & Khvorostyanaya, A. S. (2021). The role of the brand in the strategy of companies in mergers and acquisitions. *Finance and credit*, 27(6), 1241-1269. DOI: 10.24891/fc.27.6.1241 (in Russian).
2. Kvint, V. L. (2019). *The Concept of strategizing*. St. Petersburg: NWIM RANEPА (in Russian).
3. Kotler, F., & Keller, K. (2019). *Marketing management. Express course*. SPb.: Peter (in Russian).
4. Porter, M. (2019). *Competitive strategy. Techniques for analyzing industries and competitors*. M.: Alpina Publisher (in Russian).
5. Snezhinskaya, M. G. (2018). The music industry in the era of big data: prospects of sociological and marketing research. *Sociologicheskaya nauka i social'naya praktika*, 6(4), 161-172 (in Russian).
6. Gamble, J., Strickland, A., Peterof, M., & Thompson, A. (2018). *Strategic Management. Creating a competitive advantage*. Kiev: Dialectika (in Russian).

7. Aryandari, C. (2021). The Indonesian Popular Music Industry. *Made in Nusantara* (pp. 164-171). Oxford: Routledge. DOI: 10.4324/9780367855529-19.
8. Berry, J. (2011). Welcome to the Machine?: Changing Music Industry Value Frameworks and the Key Characteristics of New Music Industry Business Models.
9. Cloonan, M., & Williamson, J. (2017). The music industries. *Higher Education in Music in the Twenty-First Century*. London: Routledge. DOI: 10.4324/9781315586793-6.
10. Cusic, D. (2019). The Asian Music Industry. *Proceedings of the 2019 International Summit*, 25-27. DOI: 10.25101/19.16.
11. Dyce, A., & Smernicki, R. (2018). Bridging the Gap: Music Business Education and the Music Industries. *Proceedings of the 2018 International Summit of the Music & Entertainment Industry Educators Association*, 56-60. DOI: 10.25101/18.20.
12. Fox, M. (2004). E-commerce Business Models for the Music Industry. *Popular Music and Society*, 27(2), 201-220. DOI: 10.1080/03007760410001685831.
13. Gamble, J., Brennan, M., & Mcadam, R. (2016). A rewarding experience? Exploring how crowdfunding is affecting music industry business models. *Journal of Business Research*, 70, 25-36. DOI: 10.1016/j.jbusres.2016.07.009.
14. Hujran, O., Alikaj, A., Durrani, U., & Al-Dmour, N. (2020). Big Data and its Effect on the Music Industry. *ICSIM'20: Proceedings of the 3rd International Conference on Software Engineering and Information Management*, 5-9. DOI: 10.1145/3378936.3378957.
15. Joshi, K., & Patole, S. (2019). A Study of Transition of Business Models for Music Industry. *Journal of Commerce and Management Thought*, 10, 184. DOI: 10.5958/0976-478X.2019.00011.9.
16. Mozumder, F., Shahriar, F., & Tisha, T. Y. (2021). Music Industry and Intellectual Property Rights in Bangladesh.
17. Nordgard, D. (2018). The Music Business and Digital Impacts: Innovations and Disruptions in the Music Industries. *The Music Business and Digital Impacts*. Springer International Publishing. DOI: 10.1007/978-3-319-91887-7.
18. Owen (Baldock), R., & O'Dair, M. (2020). How blockchain technology can monetize new music ventures: an examination of new business models. *The Journal of Risk Finance*, ahead-of-print. DOI: 10.1108/JRF-03-2020-0053.
19. Russ, H., Kuilboer, J.-P., & Ashrafi, N. (2016). Business Intelligence in the Music Industry Value Chain. *International Journal of Business Intelligence Research (IJBIR)*, 5(1), 50-63. DOI: 10.4018/978-1-4666-9562-7.ch077.
20. Zilber, S., & De Abreu, O. F., Jr. (2016). The music industry business model after internet: Effects of innovation. *International Journal of Business Innovation and Research*, 10(4), 543-562. DOI: 10.1504/IJBIR.2016.076766.

© Anna S. Khvorostyanaya, Gevorg N. Tevanyan, 2021

Received 01.06.2021

Accepted 01.09.2021

**JOURNAL  
OF REGIONAL  
AND INTERNATIONAL  
COMPETITIVENESS**

