ROLE OF PUBLIC MANAGEMENT IN ELIMINATION REGIONAL DISPARITIES

Mustafin A.N., Shlyakhtin A.E., Kotulič R. [*]

Abstract: The purpose of the work is to identify the causes and estimate regional disproportions using the method based on the use of the ratio of the dynamics of the indicator of Gross regional product per capita of the regions and the average for the districts in which they are included. Based on the application of this method, the following conclusions were obtained: 1) the availability of natural resources from the regions is not a key factor in eliminating regional disparities; 2) financial support from the federal government of some regions led to the formation of a regional dependency on it.

Key words: regional disproportions, regional development, public management, regional gross domestic product (RGDP), sustainable development

Introduction

The economy of each country has undergone a certain historical development that had an impact on shaping of society and economy (Matejková et al., 2008; Korcsmáros et al., 2017). The economy transformation from a centrally planned to a market economy is accompanied by a fall in GDP and industrial production practically in all countries of Central and Eastern Europe (Kotulič, 2006). The decline was due to a variety of factors already known, such as: deformed structure of the economy, trade liberalization, and related work is the very tough competitive environment. Catching up with the developed regions is lengthy in terms of time, what is dealt with in a variety of domestic and international studies and publications (Beugelsdijk et al., 2018; Goto et al., 2018; Ambroziak and Hartwell, 2018; Mura and Ključnikov, 2018; Abdul Hadi et al., 2018; Nowak and Ulfik, 2014; Slavík et al., 2011).

Throughout the time since the beginning of the formation of a market economy in Russia, the topic of many scientific studies, agendas of discussions between representatives of business and government is the question of overcoming the disproportions in the regional socioeconomic development of Russia. These differences always existed between individual regions: a more developed European center of the country and less developed areas in the east. The historical events of

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the 20th century undoubtedly had a positive impact on reducing these disproportions. But with the onset of market reforms, the emergence of a new civilizational model, a number of negative phenomena associated with regional development and the destruction of interregional integration ties arose. Throughout the time, one of the main roles in the process of overcoming them is occupied by the state with all the resources and tools that it possesses.

Speaking about the present time, it is worth noting that the normative and legal acts of strategic importance adopted by the Government of Russia are oriented, in particular, to the spatial development of the country. In particular, the formation of new centers of social and economic development, based on the development of energy and transport infrastructure, and the creation of a network of clusters; reduction of the differentiation of the level and quality of life in the territory of Russia through measures of social and regional policy; strengthening the system of strategic management of regional development.

Russia is a federal state that has a complex structure of subnational governments, the number of which reaches more than 80 subjects of the federation. They are called districts, federal cities, territories (administrative territories), republics, autonomous regions (territorial units) and autonomous regions. Administrative units are grouped into eight federal districts, each of which is headed by a plenipotentiary representative of the President of the Russian Federation. The envoy controls the performance of the regions in each federal district. In the future, all these geographical units will be called "regions".

Regional disproportions can be understood as *"differences in the socio-economic development of regions that are the result of irregularities"* (Matlovič and Matlovičová, 2004). The study of the causes of differences is important, as this is the determining factor in the development of successful managerial policies, through which resources are mobilized and the goals of the development of society are achieved.

Indicators that measure the disproportions of regional development must meet the following requirements (Klamár, 2010):

− indicators should reflect changes in the socio-economic development of the region;
− they are statistically monitored and detected;
− the system of indicators should be optimal for their use in the analysis.

Vincenzo Spiezia and Stephan Weiler (2007) make the thesis that regional development depends on a combination of many factors: geographic location, size of territory, demography, specialization of the region, productivity, physical and human capital, and others. There are 3 sets of factors that determine the economic development of the region.

The first set consists of features of the country and national policy. For example, growth will be higher in the regions of the country at a high peak of the business cycle than in the regions of the country experiencing a recession. The second set of factors is centered on the natural wealth of the region. The most obvious example

is the presence of oil or diamond mines in the region. "Regional assets" represent the third set of factors that affect growth prospects in the region. They can be mobilized through appropriate policies.

According to the methodology of the Organization for Economic Co-operation and Development (OECD), the factors that form the level of regional development are:

− average productivity,
− industry specialization,
− change in specialization,
− employment rates,
− participation rates,
− age activity rates,
− population.

Each of these components can be viewed as an indicator of the determinants of economic performance at the regional level (Kajzar, 2018). Average productivity is a proxy for the level of productivity across all sectors. Industry specialization and changes in specialization capture the contribution of high value-added industries. Employment rates measure the efficiency of the local labor market (Mészáros, 2018). Participation rates summarize the characteristics of the regional labor force. Age activity rates and population control for region-specific developments in working age and overall demographic growth.

The work of Wishlade and Yuill (1997) lists the determinants, of which regional development and imbalances are formed: physical (climate, population change, market accessibility), economic (GDP per capita, economic development, tax revenues, etc.), social (demographic trends, unemployment, level of activity of the population, level of living conditions, etc.).

It should be noted that the role of the state is significant in the issue of regional disproportions. The main, in our opinion, task of the state is to eliminate the very reasons that hamper development (Khafizov and Mustafin, 2017). Kessler and Lessman (2009) in the study show that a high level of transfers in the state leads to an increase in regional disproportions and vice versa.

One of the most widely used methods for studying territorial disproportions is the analysis of the temporal and spatial variation of GDP per capita. In accordance with the method, we obtain a picture of the evolution of territorial disproportions by analyzing the dynamics of the standard deviation value, calculated from the natural log of GDP per capita, and measured in constant use value (Sala-i-Martin, 1996).

There are also more sophisticated methods for calculating the level of regional imbalances. So, in the work of Soares et al. (2003) the calculation technique consists of 33 indicators (demographic, economical, natural, social, etc.) through multidimensional statistical analysis.

Based on the above, focused on analysis of the regions of the Russian Federation, we will try to answer the question: the availability of natural resources is whether

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the main reason for the formation of regional disparities and what role public management plays in sphere.

Material and Methods

Based on the methodology (Kotulič and Marchevská, 2017), we analyzed the situation of individual regions of the country in federal districts, as well as the level of individual federal districts relative to the national average. For calculations, we used the data on the Regional gross domestic product by region and county, as well as the calculated average Regional gross domestic product for the country in prices adjusted for annual inflation, from 2000 to 2016. In the calculations we did not use data on the Crimean Federal District.

Method of the analysis based on the measured speed (m). Input characteristics for evaluation analysis are based on the finding that there are regions A and B with an output value of gross domestic product GDP_A a GDP_B where per capita of the region accounts for a certain level of gross domestic product, expressed in current prices as GDP_A/S_A a GDP_B/S_B. The population of the region A and B represent variables S_A and S_B. The value of A characterizes the level of the territory under consideration, and B is the average level in the federal district to which the region belongs, and in the second case the average level in the country.

Calculation of the specific speed (m) by direct methods of regional development was calculated as follows:

$$d_A = \frac{GDP_A^t}{S_A^t} - \frac{GDP_A^{t-1}}{S_A^{t-1}} \tag{1}$$

$$d_B = \frac{GDP_B^t}{S_B^t} - \frac{GDP_B^{t-1}}{S_B^{t-1}} \tag{2}$$

$$m = \frac{d_A}{d_B} \tag{3}$$

Specific speed of regional development can take the following values:

- $m < 1$, there is no the elimination of disparities in the economic level of regions,
- $m = 1$, the level of differences does not change,
- $m > 1$, it leads to the elimination of disparities in the economic level of regions.

Results and Discussion

As a result of our calculations, we obtained the following results (Table 1). Data for calculations were used from publicly available official statistical sources of the State Statistics Service of the Russian Federation (FSSSRF, 2018).

Table 1. The results of regional disparities valuation
(compiled by the authors, Federal State Statistic Service of Russian Federation, 2018)

	2006	2008	2009	2010	2012	2013	2014	2015
Central Federal District								
Index outsider - Ivanovo region	0.2	0.1	0.1	1.2	-0.2	1.1	1.1	0.1
Index leader - Belgorod region	0.3	0.6	0.1	0.2	5.0	0.3	-0.4	-0.1
Index leader - Moscow city	2.3	1.9	2.8	-1.1	-5.1	2.0	2.4	3.3
Northwestern Federal District								
Index outsider - Pskov region	0.6	0.3	0.3	0.9	0.1	-0.2	0.4	6.0
Index leader - Komi Republic	1.9	1.1	0.7	3.7	2.5	4.6	2.4	20.6
Index leader - St. Petersburg city	1.2	2.0	1.0	-0.2	0.3	-0.3	1.4	9.2
Southern Federal District								
Index outsider - Republic of Kalmykia	0.6	0.3	-0.3	-0.8	1.1	1.0	0.0	-3.7
Index leader - Astrakhan region	0.7	2.3	2.0	-0.1	1.6	4.3	2.3	-2.2
North Caucasus Federal District								
Index outsider - The Republic of Dagestan	1.2	1.8	-9.9	-4.4	1.0	1.6	1.6	1.6
Index leader - Stavropol region	1.0	1.0	9.4	5.4	0.4	0.7	0.5	0.3
Volga Federal District								
Index outsider - Perm region	0.6	1.9	1.5	1.3	-1.3	-5.8	0.8	1.2
Index leader - Republic of Tatarstan	1.3	1.2	1.2	0.7	0.8	0.8	1.8	1.3
Ural Federal District								
Index outsider - Kurgan region	0.5	-2.3	0.1	0.1	0.1	-3.6	0.4	0.7
Index leader - Tyumen region	1.1	4.2	2.2	1.4	1.8	4.0	2.8	2.5
Siberian Federal District								
Index outsider - Kemerovo region	0.4	1.8	2.1	1.1	-14	-6.8	0.2	0.3
Index leader - Novosibirsk region	0.9	1.2	1.4	0.2	14.0	7.8	1.6	1.5
Far Eastern Federal District								
Index outsider - Magadan Region	0.7	1.2	1.8	1.2	-2.0	-5.6	-5.1	-4.6
Index leader - Chukotka Autonomous Region	2.2	11.5	3.9	-3.7	5.5	11.0	5.6	0.3

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From the analysis of the table, are seen facts that the federal districts there are regions, disproportions between which have been increasing since 2000. This can be associated with various factors. Conventionally, determination reasons of regional disparities could be divided all regions into several groups, but in this paper are shows a small amounts of them.

The first group consists of regions with great influence of natural resources and natural conditions: 1. Regions "leaders"- Chukotka Autonomous Region, Tyumen Region, Stavropol region, Astrakhan region; 2. Regions "outsider" -Kemerovo region, Republic of Kalmykia, Komi Republic). Our hypothesis that the increase in regional differences is peculiar only to the regions provided with natural resources has not been confirmed. The second group is the regions that received great financial support (the Republic of Dagestan and, to a lesser extent, the Republic of Tatarstan). In Russia, there is a sufficiently large number of regions characterized by the excess of the financial flow from the region compared to the financial flow to the region from the federal government. For many regions of the North Caucasus Federal District, in a study we saw the fact that with the reduction of financial transfers from the federal government, the total GRP per capita of the district and regions fell in 2008 and in 2014 years more than in other regions and districts of the country. We can assume that the federal government should review the policy of financial support for these regions. Because this, among other things, could have shaped the dependency of the regional authorities from federal government financial support in terms of national and historical factors. The third group is the historical centers of economic and business activity in Russia (the city of Moscow and the city of St. Petersburg), in which the level of economic activity exceeds the level of some "leaders" regions of the country.

Based on the methodology, we conducted an analysis of the level of disproportions between the federal districts of Russia. The results of calculations for the federal districts are given in Table 2.

Table 2. The results of Federal Districts disparities valuation

Name of Federal Districts	2002	2004	2006	2008	2009	2010	2012	2013	2014	2015
Central	1.78	1.22	1.54	2.12	1.81	0.67	0.56	2.76	1.01	1.73
Northwestern	1.37	1.41	0.90	1.30	0.61	0.66	0.91	-1.4	1.24	0.06
Southern	0.97	0.41	0.65	1.14	0.41	0.54	1.71	2.67	0.40	-0.3
Volga	-0.1	0.63	0.79	0.98	0.83	0.65	1.29	0.61	0.58	1.02
Ural	2.23	2.30	1.41	-0.5	2.00	1.69	2.93	-0.9	2.08	1.02
North Caucasus	0.72	0.26	0.40	0.59	0.03	0.02	0.75	2.41	0.01	0.71
Siberian	0.15	1.06	0.83	-0.1	0.54	1.34	0.25	-0.1	0.35	0.71

Far Eastern Federal	1.54	0.59	0.82	0.93	-0.2	1.91	-0.1	-1.7	-0.3	1.12

From the analysis of the table, we see not only an increase in disproportions between regions in the federal districts, but also an increase in the differences between the federal districts among themselves. The revealed negative tendency can also explain the nature of internal migration flows in the country.

During the period from 2000 to 2015, the difference in accumulated RGDP per capita between the Central Federal District and the North Caucasus Federal District reached 360%.

The Russian government is seriously dealing with this problem. In the system of public authority, there are Ministries of the Russian Far East and the Ministry for North Caucasus Affairs, which are engaged in the development of the most problematic regions of the country in order to bridge the gap in the socio-economic level. Their development is included in the country's strategic development documents. In addition to strategic development plans for the country, each district has separate, adopted development documents. For example, the text of the Concept of Long-Term Social and Economic Development of the Volga Federal District includes an analysis of the regional features of the regions, the situation of the main economic sectors, as well as the main challenges and problems (OGRFF, 2011). It establishes target indicators and benchmarks, the implementation of which should contribute to the achievement of the highest welfare of the population residing in the given territory, the growth of productive forces, and the formation of an innovative economy.

In addition to regional programs, territorial entities of the Russian Federation have their own development plans. For example, the Republic of Tatarstan has a development document "The concept of long-term socio-economic development of the Republic of Tatarstan until 2030" (LRT, 2015). It defines target indicators, tasks and main problems that face the region.

The domestic experience of stimulating development in recent years has been reduced to four main areas (Putintseva, 2016): the costly and unprofitable federal "big projects" (Vladivostok, Sochi, infrastructure projects), successful investments in active regions (Tatarstan, Kaluga and Tyumen regions), special economic zones (Kaliningrad until 2016, Crimea from 2014) and the territory of advanced development (the Far East). In addition, a special place in the priorities of regional support received a geopolitical priority, providing for control through investments for the most important outlying areas of the state: the Kaliningrad region, the Far East, the North Caucasus, and since 2014 and the Crimea. According to Federal Service of State Statistics, large-scale financial investments in these regions have not yet brought a proper economic result. The most effective of all these options are shown by the regional investment initiatives of the regional authorities, when the economic result is achieved at the least cost.

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There are recommendations of the World Bank (2018), in which to overcome the problems of regional disparities in Russia they are offered a complex of reforms of the Russian financial system, which would allow subnational governments to be more independent from the federal authorities. This measure would allow, among other things, to increase investments in capital infrastructure projects, raise the level of the well-being of the population, etc.

As noted above, the availability of natural resources can only determine the potential of regions in the development of the economy and reduce the level of regional disparities. From the analysis of federal districts, a conclusion can be formulated that some regions could be given a part of federal taxes and fees, which are funded on their territory, in order to develop their potential. It is also necessary to formulate the personal responsibility of the heads of regions for the economic success of their territories to improvement quality of regional public management and achievement goals of sustainable development.

Summary

Practical experience of developed countries demonstrates that organizational and managerial changes in the economy provided them with an innovative sustainable development even during world crisis at the beginning of the twenty-first century (Mustafin and Gira, 2016; Mustafin et al., 2017; Vasilova et al., 2018). Russia is a developing country, which for two decades has passed the stage of the formation of a new civilizational model. This process is accompanied by both positive and negative phenomena for society. One of which is an increase in regional disproportions between the regions of the country. They can be characterized as differences in the socio-economic development of the region, which are expressed in conditions of conducting and the level of development of business activity, social conditions of life.

There are many methods and approaches to measuring and determining the nature of regional disproportions. The most common and often applicable is the analysis based on RGDP. In our work, we analyzed on the basis of the ratio of the RGDP dynamics of the region in question to the average dynamics of RGDP over the territory. Our calculations affected all subjects of the Russian Federation from 2000 to 2015.

We have obtained the results that during the period under review regional disproportions between the regions of Russia and the federal districts are increasing. It is possible to distinguish regions-leaders and regions-outsiders in each district, between which there is a redistribution of the population and the level of economic activity.

To overcome the existing differences, the Russian government and subnational governments have developed strategic development plans that stipulate the creation of socio-economic clusters – poles of growth, as well as the strengthening of regional specialization for building economic integration between regions.

The limitation of our model is associated with the use of only one relative indicator to identify regional disparities in the country. But this method allows us to compare regions and federal districts with each other on a large time scale. In the future research we will focus on dynamics of regional disparities changes with cluster method approach. The main goal will be to identify the effectiveness of strategic planning documents to achieve sustainable development goals and a favorable level of well-being for the population of the country.

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ROLA ZARZĄDZANIA PUBLICZNEGO W ELIMINACJI NIERÓWNOŚCI REGIONALNYCH

Streszczenie: Celem artykułu jest zidentyfikowanie przyczyn i oszacowanie dysproporcji regionalnych przy użyciu metody opartej na wykorzystaniu wskaźnika dynamiki,

wskaźnika produktu regionalnego brutto na mieszkańca regionów i średniej dla obszarów, w których są one uwzględnione. Na podstawie zastosowania tej metody otrzymano następujące wnioski: 1) dostępność zasobów naturalnych z regionów nie jest kluczowym czynnikiem w eliminowaniu dysproporcji regionalnych; 2) wsparcie finansowe rządu federalnego niektórych regionów doprowadziło do powstania zależności regionów od rządu.

Słowa kluczowe: dysproporcje regionalne, rozwój regionalny, zarządzanie publiczne, regionalny produkt krajowy brutto (RGDP), zrównoważony rozwój

公共管理在消除区域差异中的作用

摘要：分销中包含的区域产品区域分布中最重要的组成部分是什么？。
基于该方法的应用，获得以下因素：1）。 2）金融发展从区域依赖它。
关键词:区域不平衡，区域发展，公共管理，区域国内生产总值（RGDP），可持续发展。