

PROBLEMS OF FORMATION OF INNOVATION-ORIENTED INTEGRATED BUSINESS STRUCTURES IN THE DEPRESSIVE REPUBLICS OF NORTH CAUCASIAN FEDERAL DISTRICT

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Abstract. The problems of formation of integrated business structures, as one of the real directions for ensuring the flow of resources into the regional economy of depressed regions are considered in the article. At the same time, in addition to factor analysis, performance indicators are also investigated, in order to obtain detailed and reliable analysis within the framework of innovation-oriented territorial economic cluster. It is proved, that the use of multifactor monitoring of state management by regional economic systems is advisable for an integrated assessment of the effectiveness of involvement of socio-ecological-economic factors and conditions of region development in an increasingly competitive environment, in order to provide the predetermined final results.

Keywords: economic crisis, depressed territories, innovation-oriented development, business structures, sustainable and balanced development, modeling, regional socio-ecological-economic system, innovative cluster, competitive advantages.

1 Introduction

Over the past ten years, two global economic crises have taken place. They significantly affected the economy of the Russian Federation. In addition, the sanctions of the Western powers and the United States also had a negative impact on the economies of the regions. In the governance of many regions there are no modern tools for diagnosing and analyzing the economic situation of the territory. This requires the development of effective apparatus for multifactorial monitoring of the regional economic system of depressed areas.

2 Methodology

The problems of ensuring the sustainable and balanced development of regional socio-ecological and economic systems, based on the formation of innovative-oriented integrated business structures, are the subject of the research. Various methods of economic research are applied: comparative and logical analysis, functional and systemic approach, correlation-regression analysis, and multifactorial monitoring.

3 Research Results

1. Necessity and prerequisites for the formation of innovation-oriented territorial economic cluster in the depressed areas.

In recent years, the necessary structural changes in the regional economic system have occurred in the republics of North Caucasian Federal District, including through the formation of clusters, based on horizontal and vertical integration of business structures, located on the territories of specific regions (Bezirova Z. Kh., Misakov V.S. 2011, Gauzhaev A.Z., Mairov A.Yu., Misakov V.S. 2013., . Misakov V.S. 2006). Increasing

competition forces the governance bodies to develop priority directions, in order to ensure the innovation-oriented development of depressed areas. At the same time, the republics proceed from the fact, that integration processes are the fundamentally important conditions for the development of a vector for sustainable development of the regional economy. Formed clusters should become the basis for the enhancement of innovative activity of the enterprises, belonging to the regional economic complex. This will allow to reduce the gap in the parameters of social and economic development of certain territories.

The experience of the advanced territories convincingly shows that the formation of integrated business structures acts as one of the real directions for ensuring the flow of resources into the regional economy of depressed regions (Granberg A.G., Zaitseva Yu.S. 2007, Misakov V.S. 2016, Misakov V.S., Kuyantsev A.I., Dikinov A.H., Kazancheva H.K., Misakov A.V. 2016). So, for example, in Tatarstan – the region with a stable balanced economy – business integration allowed to reduce the number of intermediaries in the movement of resource flows. This, in turn, not only increased the speed of their movement, but also gave the opportunity to reduce transaction costs. Due to the above information, we can consider the integration of large and small businesses within the framework of newly formed innovation-oriented territorial production clusters as a modern effective mechanism for resource promotion, with a view to the balanced development of depressed areas of the North Caucasian Federal District.

It should be noted, that the Soviet economy had a great deal of experience in the formation of territorial production complexes. The peculiarity of the integration processes of that time was the fact, that they were always initiated by higher administrative structures, and as a rule, they were conditioned and met the interests of the planned system of management (Bekova O.O., Ozdueva D.M., Misakov V.S. 2011, Gulin K.A., Shabunova A.A., Demenieva I.N. 2007, Sinyuk T.Yu. 2012, Tsurova L.A. 2014).

In the conditions of market economy, integration processes are activated under the influence of increasing competition and are aimed at forming mutually concerned stable links between business entities and financial-credit institutions, ensuring survival, and then, subsequent growth. The main condition and criterion for the necessity of such interaction is profitability.

Over the last 10 years, a new vector in the development of integration processes has been observed - ensuring the tasks of innovative development. In this regard, the integration of business in the parameters of innovation-oriented territorial economic cluster can be considered as a prerequisite for mobilization of innovative activity of diversified enterprises, included in its composition. Of course, this is not an easy task, because it is necessary to coordinate and to achieve the involvement of resources in the formed integration processes. They should be in such amount and have such quality, which are required for the development of certain regions. Today, it is already clear, that integration structures are not only able to support and manage resource flows effectively, but also to serve as a basis for the growth of stability and balanced development of the regional economic system, under the conditions of different environmental impacts.

There are many models of formation of innovation-oriented strategy of sustainability and balanced development of the regional economic system in the professional literature. Effective schemes for resource flows management were developed within the framework of the formed integrated structure... (Bernshtein L.S., Karelin V.P., Tselykh A.N. 1999, Matveeva L.G. 2000, Melikhov A.N., Bernshtein L.S., Korovin S.Ya. 1990, Tsurova L.A. 2016). Common features for various similar models are the following. It is necessary:

- to substantiate the forms and methods of interaction between the diversified enterprises, included in the innovation-oriented regional production cluster;
- to determine the structure and the participants of the formed innovative cluster;
- to determine the characteristics and cost of resource flows, taking into account the expenditures for their movement within the cluster;
- to identify the internal and external factors, determining the direction of resource flows, as well as their impact on the effectiveness of final results;
- to assess the effectiveness of interaction between the diversified enterprises of the created innovation-oriented regional production cluster, to determine its impact on the formation of social and economic potential of the region.

It seems that it is expedient to start the process of creation of integrated structures in depressed republics with the choice of interaction mode between diversified enterprises, forming the innovation-oriented regional production cluster.

New integration business structure will be characterized by high self-organization and strictly verified target orientation. Target orientation may be the minimization of cost of resource flows, required for the implementation of project for the removal of backward territory from the doldrums.

When determining the cost of material resources flows, one must proceed from the accepted idea of the flows circulation at the meso level. A number of parameters are used for the determination, such as the methods of transportation, distance, travel time, volumes of transported resources, their frequency, etc. It has to be noted, that the parameters of material flows are well studied and successfully applied in logistics (Bernshtein L.S., Karelin V.P., Tselykh A.N. 1999, Melikhov A.N., Bernshtein L.S., Korovin S.Ya. 1990, Tsurova L.A. 2007).

It should be mentioned, that in the depressed republics, the social efficiency of functioning of the system under consideration is particularly significant, and therefore, the resource flows, which are intended to the creation of new vacancies, development of social infrastructure, etc. are extremely important. Of course, in these conditions, the manifestation of social responsibility comes to the fore, and only then the receipt of profit. Such a situation in the market economy definitely requires sufficient state support.

Speaking about self-actualization, about the forms of interaction of diversified subjects, located in municipalities, where the innovative cluster is created, we consider it appropriate to take as a basis for their development the methodology of problem-oriented assessment of the potential of different forms of associated entrepreneurship (Matveeva L.G. 2000). We proceed from the fact that problem-oriented analysis and diagnostics allow to establish the degree of compliance of the selected form of association with the objectives of territories development for a specific period of time. At the same time, in order to obtain a detailed and reliable analysis within the framework of innovation-oriented territorial economic cluster, it is necessary to study the performance indicators, in addition to factor analysis. In the depressed regions, the formed integrated structure within the innovation cluster should be motivated and oriented not only to ensure its own goals, but also to ensure the set of objectives for strategic development of the regional economic system (4, 5). Moreover, it is necessary to define clearly, that the strategic goal of business structures formation within the specified framework (innovation cluster) is to increase the degree of stability and balance of the regional economic system, through the use of economic and resource potential of depressive republics in the strategy of regional balanced growth. Of course, in this context, we proceed from the fact that it is necessary to take into account the interests of each element of the integrated structure, which involve maximizing profits, minimizing costs, expanding sales markets, etc.

Multifactorial analysis allows to identify the opportunities and contributions of a particular enterprise to the final results of the

integrated structure. In this regard, it is advisable to estimate each enterprise by a set of indicators, which characterize its socio-economic potential: personnel (including scientific); material and technical resources, financial, information and organizational, etc. The final results of such a research allow to establish the internal structure of the created system, to define the enterprises, performing specific functions, necessary to support innovative processes, and to determine the quantitative and qualitative characteristics of the resource flow, circulating among the participants of the created cluster.

Equally important is the participation and contribution of the municipality itself in providing a specific type of resources for the created integration structure. In the professional literature there are many approaches to modeling the structure of the innovation cluster, depending on the forms of municipalities, where they are created (Gulin K.A., Shabunova A.A., Demenieva I.N. 2007, Misakov A.V., Afonin Kh.Kh. 2010, Misakov V.S. 2006). They can be reduced to two approaches.

In accordance with the first concept, the cluster includes the enterprises of municipalities, the peculiarity of which is the presence of low indicators of socio-economic development. At the same time, the motivation for inclusion of such enterprises into innovation cluster may be an acute shortage of own resources for production and financial activities; the necessity to form and control external relations in order to achieve guaranteed resource flows; the need to improve the competitiveness of production, etc.

In accordance with the second approach, in addition to weak economic entities in the territory of the innovation cluster, it is proposed to include enterprises with high social and economic potential. This approach allows more efficient use of all resources, located at this territory, as well as to expand the sphere of influence.

In any case, to analyze and define the effectiveness of the selected form and structure of interaction, it is required to compare the size of resource flows for each enterprise of resource potential with the need for these resources. In other words, the problem is in the necessity to compare a multitude of resource flows $\{R_i\}$ with a multitude of resource requirements $\{X_j\}$. The method of fuzzy modeling can be used for this (Melikhov A.N., Bernshtein L.S., Korovin S.Ya. 1990).

2. Possible options for the formation of innovative cluster.

In the course of analysis and diagnostics of resource flows, such options are possible, when:

- the set of resource flows for all elements is greater than the set of resource requirements. This form of interaction can be considered as effective, because it not only ensures the implementation of the investment project, but also has additional reserves for the development of territory;
- the set of resource flows is greater than the set of resource requirements only for some separate elements. In such case, this form of interaction can be regarded as generally effective, against the background of inefficient structure, which requires the involvement of new (additional) participants in the integration structure, or the revision of participation degree of its elements;
- the set of resource flows is equal to the set of resource requirements. In this case, the form of interaction can also be estimated as effective, since it ensures the implementation of the investment project. However, it is necessary to take into account the high degree of risk, due to the lack of the required safety margin;
- the set of resource flows is less than the set of resource requirements. It is obviously that this form of interaction is ineffective, because it does not allow the implementation of a given investment project.

At the next stage of the formation of innovation-oriented regional cluster structure, it is required to estimate the cost of resource flows and the options for interaction, in order to make the final managerial decision on the structure of the regional cluster being created. Moreover, the minimum cost of the consolidated resource flow will be the criterion for managerial decision.

Especially, it is necessary to study the indicators, reflecting the potential of labor resources (the number of workers according to specialties, to level of education, to age, etc.). Such an approach will make it possible to determine the ability and level of innovative activity of labor resources in the territory. It should be noted, that this is an important part of the study, because in the depressed republics of North Caucasian Federal District, especially in mountainous areas, the majority of population is characterized by a lack of systematic orientation and opening of new opportunities, as well as low susceptibility to innovative development.

In the course of our study, more than 95% of the mountain entrepreneurs make it clear that they do not even think about carrying out their activities in the field of innovative business. They practically did not hear anything and were not interested in information about targeted programs for supporting innovation business. They have never been at the republican competitions and exhibitions of such type. It is obviously, that regional and municipal authorities make precious little efforts to promote innovative development. It is necessary, that the population in depressed republics in the shortest possible time becomes an active object of innovative relations. Of course, this requires significant material costs, but the formation of "innovative" labor resources, the creation of innovative labor potential is the only way to form skilled innovative and active workers in municipal areas. And this is natural, because the rotational system of human resources attraction is ineffective for forming a labor potential in the mountainous territories of depressed republics (Misakov V.S., Herter I.K. 2011, Misakov V.S. 2016).

It should be noted that the availability of human, financial, material and other resources in the region does not guarantee its innovative development, and it is not sufficient imperative. In depressed republics, the development of the regional economy is also influenced by a mass of informal factors, which are the consequences of complex ethno-cultural, socio-psychological, geopolitical and other processes.

All this requires the identification and analysis of factors, affecting the formation of resource flows. Such methods as SWOT (meso level) and PEST (macrolevel) analyzes are successfully used in this case. They allow to explore the state of regional economic system on the basis of parameters of internal and external environment (the conditions in which innovative activity takes place), as well as to assess its competitive advantages.

It is noteworthy that, even if we propose to determine the resource flows using the impact factors of macro- and meso-levels, at the same time they are the instrument for ensuring a set of socio-economic and political goals.

Estimation of final results of the innovation cluster can be determined in two ways:

- the analysis and diagnostics of the effectiveness of integration interaction between different enterprises - participants of cluster;
- the analysis and diagnostics of integration interaction and impact on the socio-economic potential of the territory.

The effectiveness of participants in the innovation cluster can be assessed as positive, only if, as a result of functioning, each participant has the opportunity to fulfill its own goals, which it can't achieve, if he functions outside the cluster. For example, the indicator of profit, access to new markets, etc.

At the same time, regional economic system can't be characterized only by indicators of economic development - it is also necessary to take into account the parameters of socio-cultural sphere, the environment... In this regard, in order to assess the contribution of final results of integrated structure to the potential of the territories, it is necessary to determine the socio-economic potential of the region and its spatial distribution.

In the course of our research, we faced such a problem as the absence of official sources of information. Most of indicators, required for the analysis and diagnostics of republics' potential, are either absolutely absent or have contradictory meanings about the level of innovative activity of business structures, including due to fuzzy understanding of the concept "innovation activity". Of course, it must also be taken into account, that a number of data, necessary for analyzing and diagnosing the cost of resource flows, is rather difficult to obtain, since they relate to the activities of certain entrepreneurial business structures, and are not provided to interested institutions or analysts (such as wages, production costs, etc.). In this connection, in course of our research for modeling of innovative-oriented strategy of management by balance and sustainability of development of the regional economic system, we had to use relative-factual data, established with a certain level of reliability, and derived from the official data of the Federal State Statistics Service of the Russian Federation for the republics of North Caucasian Federal District, and data of the Federal State Statistics Service of the Russian Federation. In addition, we involved experts from the public areas. Despite some margin of error, it can be said, that the use of relative-factual data made it possible to obtain the adequate notion of the socio-ecological and economic situation of the areas under study.

4 Conclusion

In the depressed republics of North Caucasian Federal District, it is necessary to create a favorable socio-cultural environment, to involve new training and development programs in the sphere of innovations, and to attract external innovation-active resources. Such an approach will unconditionally allow to develop a strategy for management by the sustainable social and economic development of the territory, to achieve an additional effect, which will significantly enhance the socio-economic potential of the region.

The analysis of the dominant characteristics of methods, used for the control of regional development in the current period, gives the opportunity to conclude that they are not effective mechanisms for the optimal allocation and involvement of resource potential of depressed areas, and they don't allow for the sustainable development of the regional economy.

Consideration of problems of asymmetric development of depressed territories through the prism of solving problems of systematically balanced development of regional economies made it possible to define as a priority direction in the current regional policy the mobilization of growth points of proportional development of the social and economic potential of the republics of the North Caucasian Federal District, in order to achieve long-term socioeconomic equilibrium.

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