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## **REGIONAL CLUSTER AS A VECTOR OF SOCIO-ECONOMIC DEVELOPMENT OF THE TERRITORY**

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### ABSTRACT

The problems of the steady and coordinated socio-economic development of some regions and the country on the whole are more than ever relevant on the present stage of development of Russia as an equal and stable member of the international community. Until recently the priority in the regions' development was given to the economic component. On the whole, the socio-economic development of the regions significantly depends on the state regional management that assumes the regulation of the regions' economic and social development with the help of active regional policy. The main aims of such regulation are: the consolidation of the state unity and integrity; the overcoming of the significant differences between the regions in the factors development, living standard, suppression of regional separatism, maximizing the potential of the international exchange, creation of the prerequisites for the regions' self-development and functioning without subsidies. Federal regional programmes which are financed on the basis of equity from the federal budget are the forms of the direct state participation in the regulation of the regions' development.

The questions of the economic development of the regions of the Russian Federation are the most important and strained problems of the economic and social development. The current economic situation leads to the necessity of revision of approaches to the regional problems solving on the part of both the public authorities – the development of adequate regional policy, and the regions – the development of tools of measures that allow to pursue the effective regional policy, attracting investments and implementing development of the territory within the innovate development leaning on the resource potential use.

The article's applicability is determined by the important role that is designated by the Russian Government among the main (of top priority) directions of socio-economic development of the regions. Among the priority direction of the long-term development of Russia are the reduction of differences in levels of the socio-economic development of the regions by means of a decrease in the number of the Russia's subjects whose socio-economic development is below average on the one hand. On the other hand, the main role is in the strategy of the economic development of Russia that was set out in the conception of the long-term socio-economic development of Russia until 2020.

**Keywords:** region, socio-economic development of the regions, state regional management, regional policy, potential of the interregional exchange, innovation development, world (global) economic crisis, economic growth, state infrastructure.

# РЕГИОНАЛЬНАЯ ЭКОНОМИКА

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## РЕГИОНАЛЬНЫЙ КЛАСТЕР КАК ВЕКТОР СОЦИАЛЬНО- ЭКОНОМИЧЕСКОГО РАЗВИТИЯ ТЕРРИТОРИИ

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## АННОТАЦИЯ

Проблемы устойчивого и согласованного социально-экономического развития отдельных регионов и страны в целом являются как никогда актуальными на современном этапе становления России как равноправного и стабильного члена мирового сообщества. До недавних пор приоритет в развитии регионов отдавался экономической составляющей. В целом социально-экономическое развитие регионов существенно зависит от государственного регионального управления, которое предполагает регулирование экономического и социального развития регионов с помощью активной региональной политики. Основными целями такого регулирования являются: укрепление единства и целостности государства; преодоление существенных различий между регионами по факторам развития, уровню жизни, пресечение регионального сепаратизма, максимальное использование потенциала межрегионального обмена, создание предпосылок для саморазвития регионов, функционирования без дотаций. Формами непосредственного участия государства в регулировании развития регионов являются федеральные региональные программы, финансируемые на долевых началах из Федерального бюджета.

Вопросы экономического развития регионов Российской Федерации являются одной из самых острых и напряженных проблем экономического и общественного развития. Сложившаяся в настоящее время экономическая ситуация ведет к необходимости пересмотра подходов в решении региональных проблем как со стороны государственных органов власти – формирование адекватной государственной региональной политики, так и со стороны регионов – разработки инструментов мероприятий, позволяющих провести экономически эффективную региональную политику, привлекая тем самым инвестиции и осуществляя развитие территории в рамках инновационного развития, опирающейся на использование ресурсного потенциала.

**Актуальность статьи** определяется той важной ролью, которая обозначена Правительством Российской Федерации в числе основных (приоритетных) направлений социально-экономического развития регионов. С одной стороны, к числу безусловных приоритетных направлений долгосрочного развития России следует отнести сокращение различий в уровнях социально-экономического развития регионов за счет уменьшения числа субъектов РФ, социально-экономическое развитие которых ниже среднего, а с другой стороны, в стратегии развития экономики страны, изложенной в Концепции долгосрочного социально-экономического развития РФ до 2020 года.

**Ключевые слова:** регион, социально-экономическое развитие регионов, государственное региональное управление, региональная политика, потенциал межрегионального обмена, инновационное развитие, мировой экономический кризис, экономический рост, государственная инфраструктура.

**Introduction.** Today, in the terms of the global economic crisis, the main task is the provision of conditions for the limited resources' concentration in the carefully selected directions that give one regions the opportunity to maintain the leading positions and other ones to create the prerequisites for the economic growth. Totality of security conditions and management of the territory development necessitates the creation of the state infrastructure of the strategy of region's development where regions are the basic units. Such a structure creation will demand new culture quality from the state coordinating organs, and the new project culture, science-based forecasts (predictions) and programmes, appropriate means of information support and making effective management decisions from the regional authorities.

At the same time each region, as a part of our country, is a complex and independent subject having its own interests and possessing the unique potential and opportunities, coordinates the balance of regional and state interests by taking into account the dominating trends of our time: globalization and regionalization.

**The purpose of the work is** the development of a complex model and the tools of prediction calculations of the regional economic system development under the influence of the independent external cross effect elements on the facility management.

The creation of the innovation mechanism of projections will allow smoothing the factorial adverse effect and maximize the effectiveness of using the resource potential of the territory based on the concentration of business activity.

**The main part.** The exhibiting problem in the development of the economic systems requires the elaboration of the new tools of the complex regional prediction that will be the base for the goals definition and the strategy and tactics of socio-economic development creation.

Transition of Russian economy to the market form of management has led to the change of the place and role of the traditional management methods, which from the

globally universal have pass into the locally limited management tools.

However, it has not led to the reducing of management significance in system of the economic society's institutes, but, in fact, contributed to its sharp rise and value in providing the dynamic of sustainable socio-economic development of society. First of all, it is subject to the common set of tools of administrative-command management that lost its absolute domination and the right to interlope the practice of market economy [1].

In this regard, considering management as a system, we should bear in mind the following:

Firstly, management is always connected with the specific human activity, when people make decisions (management as a function);

Secondly, management is the command of people, performing the managerial work in the hierarchical structure of production (managers represent the interests of their employers (management as an institution).

The unity of two elements forms the unified management system potential. Clarifying the definition "management potential" we consider it as an "administrative resource – the resource that is created in the system of functional specialization – dependence, which is expressed in the decisions made and management mechanism. It is, first of all, the recourse efficiency, complexity, consistency, adaptability, variability, innovation and adequacy of subjects' behavior, the management resource of professionalism". Thus, the regional differentiated approach to the growth rate of socio-economic development, based among other things on the effective use of human resources, is the special problem throughout our country, because the modern mechanism of conditions for the sustainable region's development formation is associated with the balanced self-development, where the human capital is a source of its providing. It is interesting to note that preserving and enhancing of the human capital is currently difficult, that is why the existing problem requires a complex decision. It is necessary to form the effective model, the use of which is aimed at the intensive solution of the socio-economic

problems of a region in order to provide its sustainable development.

The opportunities of sustainable growth of the effective production activity and non-production sphere in the market economy depend on the availability and size of the potential series, which include:

- Natural, including resource (primary and secondary) and spatial;
- Production – technical, technological, energy, etc;
- Ecological – the state of land resources, air and hydrosphere;
- Economic – financial, infrastructure;
- Demographic – the working population, the level of education and qualification;
- Economic and organizational – the level management continuity, the system flexibility and the ability to self-organization, the stability of the feedback and the integrity of system.

The development of social production is carried out in the framework of functioning and interaction of economic entities with a particular sequence of priorities choice, specialization and concentration, cooperation and integration, differentiation and diversification of economic activity both industrial and territorial. The main driving development force is cooperation as a collaboration of economic agents with the consequent transition to the formation of integrated systems that combine disparate elements that begin to function together as a single entity. That is why, under current conditions it is possible to determine the direction of the effective socio-economic development of Russian regions by means of the active application and use of cluster platform of spatial economy organization combination with in the methods and models of evaluation of the composition and content of the basic and specific factors of the region's development.

The successful experience of using the mechanism of cluster technology for the management of the economic systems of different countries indicates that there is no single mechanism in this sphere and, therefore, the elaboration of the scientific-based balanced state and regional policy to ensure the con-

stant economic growth the development is required [2]. In this regard we need to work out the algorithm of formation and clusters' functioning that are oriented on the establishing of polyvariant vectors to provide the balanced regional space of economy growth.

The specific place in the cluster is reserved to the building of integrated model of the socio-economic activity of the region within a framework of which all subjects are combined in a single entity for the bringing the forecast calculations of their development up to the unified methodology [3, 4]. These forecast calculations are oriented on the whole on the reflection of the main reproduction stages: production, distribution, use of the product taking into account the existing limitations of both the labor force and the basic funds provision. The mechanism of constructing the financial resources forecasting system is built on the directions of paramount importance, the sources of their formation, redistribution and use in connection with the situation in the real sector of the regional economy and the strategy of its subjects' behavior. The forecasting process of the other types of resources, including investment and capital, is carried out analogically.

Methodological and informational support purchases the actual configuration of cooperation in the development of the effective forms of strategic elaborations. But these kinds of support, in particular, extent, in a greater degree, a big number of problems in the practice of regional management system, because the absence of the common methodological base and technology of the regional forecasting is the negative factor that in its turn cannot help being reflected in the final decision. The currently recommended methodological approaches to the development of the estimated figures are mainly based on the use of the systems of direct calculation and expert estimation. The methodology underlying the forecast calculations is fragmentary and does not allow getting the system understanding about the regional reproducing process, because it does not correlate macroeconomic, industrial and sectoral indicators of the economic development. It is connected with the

fact that calculations for these indicators that are carried out separately and their balancing act is not always made. Most of the forecast parameters are derived on the expertise base, and because there is no formal procedure to get these indicators, so the opportunity of their arbitrary and uncoordinated measurement appears and that, in its turn, reduces the reliability of these forecast indicators. In this regard, it should be noted that the model calculations using the production functions of different types and complexity (and the economic systems of small dimension) are provided on the individual blocks of indicators [5]. Following up upon the existing problematics of the forecast parameters, one more problem should be mentioned, that of imbalance of the statistics data and the reforms in the statistical reporting being half-developed. The calculation of gross domestic product, the intermediate consumption, the gross regional product, the calculations of which are made in the system of National Accounts and the main funds and the workforce – in the balance system of the national system economy can serve as an example [6]. The given example obviously shows that these methodological approaches for calculations are unviable. The represented lacuna does not allow comparing the product output with the production and employment potential in the context of the economy. As a rule, official data developed by the organs of the state statistics are characterized by the delays (gross indicators of the regions are calculated in a year and a half or two years after the ending of the financial period), with numerous additional calculations and adjustments (the adjustment of the statistics indicators can be produced in two or three years after the ending of the financial period). Besides, many indicators which have the prime meaning for the evaluation of the level of socio-economic development are formed on the basis of the imperfect methods. It primarily refers to the gross regional product, the indicators of the consolidated balance sheet of financial resources and a number of other indicators. Thus, integrating estimated figures, combining all kinds of the forecasts in the organic whole may be the calculations

of gross regional product carried out with the help of the following methods:

- 1) production method representing the formation of the value added under the sectors of economy;
- 2) distribution method determining the common structure of the value added and incomes;
- 3) qualitative use method characterizing the directions and capacities of the gross value added usage.

The balances of the population's income and expense and the consumer market are connected with the structure of the value added, directions and areas of its usage. As each subject of the Russian Federation forms its own budget, it, inclusive of some correcting, can become the base for the income and expenditure account of the organ of state power of the region. The balance of income and expense account characterizes the excess or shortage of the financial recourses of the regional organs of state power. So, based on the existing problems, it is necessary to create such an infrastructure that in its turn will assist the collective work of the specialists on the development of regional strategies and programmes [7]. Local computer network; general information resources (regulatory, statistics, forecasting and analytical and other databases and documents); all kinds of tools for automation of forecasting and analysis activity; representation in the Internet can be considered as such an infrastructure. Therefore, at the present time, when region is an object of management, a complex system with many processes (economic, social, political, etc.) significantly influencing each other; getting of the actual information on time, its rapid analysis and expressive presentation of the results is becoming one of the most important prerequisites for the successful management of the regional economy [8]. In this regard, the processes modeling in the situation center where the analysis and the forecast of development are based on the new computer technologies may be one of the operative ways of management and coordination of the economic, financial, political and other interests. Creation of such integrated

information-analytical complex for the situational analysis of the regional socio-economic development will allow solving a number of problems [9, 10, 11]:

- to monitor internal and external situational factors determining the current regional's state (the level of development of the fuel and economic complex, financial flows and ratings of industrial companies and banks, demographic and socio-cultural situation in the region, etc.);

- to assess the actual and potential prospects in the elaboration and justification of the possible directions of regional development, depending on the internal and external socio-economic and other conditions;

- to determine possible cooperation mechanisms of economic and political subjects for the achievement of the targeted regional development;

- to establish the effects of the political, socio-economic and other regional transformations;

- to implement the strategic control for the movement and interaction of the basic cash flows, human and other resources in the non-standard and crisis situations (merger, restructuring, bankruptcy and reorganization of companies, natural disasters and the states of emergency, etc.);

- to organize a large-scale researches of natural-economic, demographic, environmental and other regional characteristics (natural-resources potential, regional transport network, unemployment and part-time work, etc.);

- to research the problems of horizontal links (the usage of regional off-budget funds, the formation of inter-regional infrastructure networks and the creation of zones with special economic regime, etc.).

The basis of this modeling is formed first of all by technologies of cognitive and simulation dynamic analysis followed by separation on the phased implementation. The first step is the cognitive modeling for structuring, analysis and making decisions in complex, rapidly changing and uncertain situations (economic, socio-political and ecological), in terms of absence of quantitative data about

changes and behavior experience. The cognitive approach to the analysis and modeling of complex problem situation allows giving the description of the internal structure of the problem under research and ongoing processes (political, economical and social) in cooperation and interdependence of the factors of the external world.

Identification of the environmental factors and the modeling of the consequences of their impact authorize the creation of tools to manage the situation and on the basis of the knowledge received, provide the opportunities to influence on the grounded decision-making, to manage the ongoing processes according to the situation with the aim to minimize the possibilities of the unfavorable events occurrence [12, 13]. As a result of the cognitive approach to the analysis and the modeling, the strategy of the goal directed regional development is elaborated, or rather, a forecast built on the cognitive models, where the model of the region interacts with the model of the environment (economic, social, political, etc). The goal of such a modeling is the determination of the totality of driving forces in the external situation in the relation to the region with the establishing of the cause-and-effect phenomena:

- Firstly, what will help and what will prevent the goal directed regional development;

- Secondly, how to discover and how to use the properties of the external situation in the interests of the region;

- Thirdly, what ways for achievement of the aims are possible taking into account the favorable situation in the region.

The cause-and-effect phenomena established are effectively used on the second stage in the process of the dynamic simulation modeling, which allows:

- 1) forming the high-level descriptions, contributing to the specification and better understanding of the essence of the complex processes' functioning and detection of the hidden inaccuracies and contradictions;

- 2) simulating the behavior of the situation in order to detect the negative effects in the past and mitigating or eliminating their impact in the future;

3) developing the working prototype for their usage as the formal specifications of integrated enterprise applications' fragments within a short time.

As a result of simulation process, the programme of actions for achieving the goals of the regional development is elaborated; the questions of resources distribution in the directions of the development and time management are solved; the potential and real opportunity for the achievement of the goals with the help of the selected leverages and obtained control actions are explored. Further the transition from the elaboration of the strategy of the achieving the goals to the development of the programme of the specific actions is carried, where the tool of strategy's realization is the regional budget and tax policy. For the implementation of the resulting programme, the created dynamic model is used as a tool to coordinate / control the implementation of the programme.

**Conclusion.** Summing up the relevance of the usage of the integrated information and analytical approach to the situation analysis in the system of regional forecasting of the indicators based on the elaboration of the strategy and the programme of the socio-economic regional development, it should be stated that the functional structure of the proposed tools influences on the development of the regional structures and suggests the cross-influence of the individual elements from the external environment to the facility management and the

possibility of assigning a particular leverage to the several groups.

However, analysis of the certain types of influence tools does not reduce, but rather increases the possibility of fusion, the simultaneous usage of some tools in a systematic manner. When designing the information knowledge base of the evaluation and comparative analysis of the regional resource potential, it is necessary that the system of indicators, processing technology and methods allow considering:

1) the tendencies of regional indicators growth in the dynamic to forecast the main development parameters;

2) the types of the structural units of the resource regional potential, which management can be realized on the basis of the algorithms, directed on the usage of the competitive advantages;

3) the opportunity of providing the inter-regional comparing in the reached levels of the economic development of the territory / infrastructure;

4) the probability of the definition of the region's place and its role in the development of the socio-economic system of the country on the whole.

In this regard, it is essential to have a clearly defined economic strategy of development of the national economy, a working model of the interaction of the national and regional economies, to support regional development strategies and the ways to implement it.

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