

## Building of the Model of Sustainable Competitive Advantages of the Region

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**Abstract:** In the study was developed and proposed a model of sustainable development of competitive advantages of the region which has a universal address orientation because it makes it possible to include management tools for a variety of vectors functioning of the life in the region whether it is questions of the formation of regional management, the definition of objectives, current and strategic tasks, the main trends and laws, principles and ways of implementing the regional development programs to the microeconomic processes of effective planning and using of functional, resource, competence, technological, organizational, structural, methodical and instrumentation and other types of internal production potentials. The model has the property of a system of harmonization of activities of all participants in the process of sustainable development of competitive advantages of the region (including the functions, relationships and their interaction with each other) which greatly improves the efficiency and competitiveness of the regional administration. Strictly defined sequence of procedures in the model provides a set of both direct (immediate) and indirect interventions (e.g. regulations, incentives, activation, coordination, unification, etc.) to the changing conditions of functioning of the regional community with a wide range of methodological tools that contribute to the positive dynamics of the effectiveness of the regional economy.

**Key words:** Regional development model of sustainable development, regional economy, competitive advantage, property, resource

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### INTRODUCTION

In modern conditions, the competition between regions is composed not only of the possibilities of lobbying interests of territories by regional authorities aiming to redistribute of financial resources from the federal government but also real attraction of investments to the region, initiating activity of local business communities which determines the identification and implementation new changes and improvement of real competitive advantages.

Sustainable development of competitive advantages of the region is aimed to create a comfortable environment for people and its consistent improvement, increasing effectiveness of business structures which ultimately should lead to improving the quality of population life of controlled territory.

### MAIN PART

**The genesis of the concept of cluster policy:** Multiple aspects of the regional development problems are considered by many Russian economists. Most of them converge in the opinion that in the present conditions of

economic development the cluster strategy represents one of the most important instruments of state policy to improve the region's competitiveness.

According to recent new studies (Rokotyanskaya and Gerasimov, 2015; Rokotyanskaya, 2012; Rokotyanskaya *et al.*, 2011; Tatuev and Zhankaziev, 2015; Tatuev and Shirokova, 2015), the industry with the highest degree of competition develops on the basis of supporting and creation of clusters there by increasing the competitiveness of most companies in the clusters and the economy as a whole. Gradually, the development of scientific thought in the cluster direction began to involve not only scientists but also the ideologist of state economic policy. In practice, the government created artificial conditions for the development of clusters that achieved certain results. For example, according to the Harvard Business School in the US economy >32% of employment, not including the public sector is provided by clusters.

The Swedish economy which is much less than the US but more open in clusters occupied 39% of the working population, not including the public sector.

There is an interesting fact that in clusters there are more level of labor productivity and wages in comparison

with the country. For example, in the usual US state with the cluster development of the productive sectors, exporting goods and/or services outside the region, the salary of 29% US average.

According to the Harvard Business School, “a cluster sector is the main driving force behind the development of sectors that cater to the local market”.

According to the M. Porter's theory, we can conclude that the most developed clusters in a single country favor a higher level of living of the population and the competitiveness of enterprises and companies. At the same time, the state has to spend much money for the cluster policy implementation that can afford not every country. The cluster policy is provided by many developed and developing countries such as Japan and South Korea, Singapore, Finland, Slovenia and Canada.

The study of cluster policy is based on practical developments affecting on the successful implementation of the policy. At the same time, the cluster policy has development stage, passing the way from the initial idea to assess the implementation of «the study of the regional economy allows to select the unique clusters and define objectives of their development; the use of the regulatory framework for the study of the cluster approach; cluster development strategy which is oriented on results; implementation of supporting measures of the clusters development in the region which is provided for the creation of cluster policy; continuous monitoring of the implementation of measures for implementation of cluster policy; the study of factors affecting to development of the cluster in the region».

The lack of a precise definition of the cluster and the existence of a multiplicity of interpretations of the cluster concept allows to use different approaches to cluster policy. Many Western analysts believe that the cluster policy in its pure form does not exist due to the lack of functioning policy instruments.

Thus, cluster policy is aimed to the development of individual sectors and specific measures for these sectors, taking in to account the interaction between business, research and education institutions and other business environment. The cluster policy has a specific role in the development of small and medium-sized businesses. Combining the role of technological development, the relationship of related economic sectors and the growth of private businesses as well as various tools associated with each policy area there is the following conclusion that competitive advantages are based on the combination of these different policy areas.

**Model of cluster policy:** The main idea of the cluster policy is self-reinforcing business networks (rather than individual companies) as well as factors affecting the competitiveness of the sector (such as the availability of

certain competencies, technology and finance). Cluster policy is carried out through a network in which policy support is not centralized and distributed among the various public and private agents which are coordinated within the overall strategic objectives.

Ongoing studies of clusters in European countries revealed some significant differences in the policies of clusters. First of all, the cluster policies of various regions differ significantly scale that is characterized by a system of funding based on the size of projects. Secondly, the differences are in the immediate objectives and instruments of cluster policy.

The cluster approach in politics is manifested in various forms: a strategically certain policies aimed to develop industrial sectors; policy is focused on a specific factor in the development of the cluster; policy which is part of other strategies of economic development; the overall goal in a series of other uncoordinated activities aimed to a specific industry.

In world practice, two main models, within which the cluster policy in individual countries-liberal and dirigisme model. The liberal cluster strategy is typical for those countries (US, UK, Australia and Canada) which is traditionally carried out liberal economic policies and a lot left to the market. Dirigisme cluster policy, respectively, carry out the authorities of those countries that are actively involved in the economic life of the country. Among them, for example, France, Korea, Singapore, Japan, Sweden, Finland, Slovenia.

There are three basic differences dirigisme model of cluster policy from the classical liberal. The first is to select priorities. Deregisters at the state level select sectoral and regional priorities and those clusters that are going to develop. For example, the Korean government has allocated five regional industry clusters that are endowed with a clear specialization. The Kazakh government has also identified specific clusters to prioritize with the fact that they should not be associated with the extraction and processing of natural resources. The liberal cluster policy also grows clusters that were originally formed by the market.

The second difference is that deregisters purposefully create infrastructure for the priority clusters: branches of universities, research institutions, airports, roads and so on. Liberal government by contrast is rarely involved in the creation of infrastructure for clusters.

Third, the fundamental difference between the dirigisme cluster policy expressed by the liberal role in the region where the cluster is created. Deregisters independently choose the region to create a cluster and determine the scope of its financing. Liberals also create incentives for regional authorities which bear the entire responsibility for creating cluster. For example, the US Department of Economic Development, responsible for

regional policy, funds research projects, the purpose of which the identification of clusters and provides special grants to the states on the development of clusters in particular in depressed areas. Currently, the development strategy of each American state is based on the development of clusters.

A huge role in the implementation of cluster policy in the United States plays a business association in particular the National Council on Competitiveness which includes businessmen, academics and politicians are not included. The approach to the cluster policy of the government of Great Britain is not much different from the US. The government gives grants to regional development agencies that develop and implement the strategy of cluster development.

However, it should be noted that clusters can develop without public authorities. The most interesting fact is that cluster policy today is conducted and some Russian regions. For example, the government of the Perm region with the help of Bauman Innovation has made a project to identify key clusters and developed a targeted program of development. Currently in the region, a program of development of the timber industry and developing a program for the construction cluster. In the Leningrad region are developing a program to identify clusters. In recent years, the federal Russian authorities began to show considerable interest in cluster policy.

During the Council on Competitiveness and Entrepreneurship at the Russian Government it was decided to develop the concept of cluster policy. This strategy of cluster policy at the same time created the Ministry of Economic Development and the Academy of National Economy (ANE) and consulting company Bauman Innovation (BI). As a result of research and development of the project was attended by the differences between the two strategies: the project «Concept of cluster policy» of ANE and BI developers and the final draft of the «Concept of development of regional industrial clusters», created by the Ministry of Economic Development. The main difference is the using of different models, firstly it was about the principles of a liberal approach but later changed their dirigisme aspects. For example in the section of the outcome document «The role of public authorities in the development of clusters» is said: «at the federal level in determining the system of measures to promote the development of clusters advisable based on the strategic priorities of Russia's technological development to ensure the competitiveness of the national economy within the global division of labor». The transition from one approach to another due to the fact that in Russia there are no priorities and the choice at the federal level is not possible due to certain

difficulties. While working on these projects the main tool for the implementation of cluster policy in Russia has been identified, based on the experience of the US and UK, employing a system of grants for the region. Dirigisme direction of the concept of cluster policy implies a clear definition of sectoral and regional priorities. Further more this concept must address not only the creation and development of industrial clusters but also service enterprises.

In the world practice to distinguish between the following basic forms of incentives for companies within the cluster of industrial systems: direct funding through grants and loans; providing interest-free loans; the allocation of grants for scientific research; creation of funds for innovation, taking into account the possible commercial risk; grants; reduction in government fees for individual inventors; postponement of payment of fees or exemption from them if the invention relates to energy savings; free consulting services.

Among many descriptions of the characteristics of the cluster model is considered the most famous "diamond" pattern or rhomboid (diamond model), proposed by Michael Porter and Harvard Business School. This model includes the following components: the structure of the company and competition; local needs; related companies and support; factor conditions (skills, infrastructure, scientific research, capital).

Another commonly used model is the relationship in the form of pyramids which are located at the top of the leading exporting companies then the following vendors and service providers in conclusion in the form of a base, five basic factors: skilled and adaptable workforce; available technology; availability of capital; progressive physical infrastructure; tax and competition law.

Regional authorities has the right to use any of the above models but the most important thing is to hold the existing clusters in the regional economy and it is in recognizing and simulation cluster, moving to coordinate the work and the development of the cluster in the local context.

The existence of various definitions of the cluster due to different approaches and the nature of the organizations involved in this issue. So, the government and public bodies apply more advanced interpretation of the cluster. As a result, this approach is considered as clusters broad categories and business areas such as metallurgy, professional services, tourism, etc. With no single component of the production system.

The second approach is based on the search for quantitative indicators and parameters required for statistical and economic analysis such as the Standard Industrial Classification Industries, indicators of economic

agglomeration and transaction flows. Under this approach, using traditional methods of analysis of economic development and regional studies such as the geographical concentration of production and employment, factors of localization, cross-sectoral analysis. An example of this approach is the study of the Department of Urban and Regional Planning at the University of North Carolina where on the basis of the coefficients of localization and inter-product flows are allocated within the framework of the state's economy 23 industrial cluster.

In another study, the selection of clusters is carried out throughout the country on the basis of formulas for weighing indicators such as the volume of production, the intensity of the concentration of production and the relative importance for the local economy, the growth rate, the intensity of inter-sectoral linkages. Using this approach, the US economy has been allocated 380 clusters in areas such as high-tech manufacturing, consumer goods industry and others which accounts for 57% of the labor force, 61% of the gross domestic product, 78% of national exports.

Last third approach is inherent in the various business schools, developing a regional cluster model based on comparative competitive advantage in global markets such as the level of competitiveness, the nature of business transactions, specialized infrastructure, development of local consumer demand.

The ability to describe the dynamics of the cluster is not unique to all models. They do not explain the mechanism of the cluster as the company interact with each other whether there is such an interaction and how it creates a synergistic effect. The number of companies and employees, the availability of resources, proximity to customers, competitors and companies that supply parts, materials and services to achieve economies of agglomeration is only part of the factors contributing to the development of clusters and regions in which they are located. No less important are the flow of information, technological progress, innovation, professional level of the labor force, flows of capital and labor within the cluster and outside.

Traditional research methods are not suitable for the analysis of the agglomeration process and the dynamics of social infrastructure and therefore do not allow to distinguish between a simple concentration of the industry from operating cluster.

Economic models have been used recently in the regional modeling. It should be noted that foreign inter-region model is considered as a kind and unique point in space. However, intra-regional model is

characterized by spatial relationships, using analysis and forecasting of regional growth and use to predict economic activity.

Thus, the complexity of the object of research to increase the competitiveness of the regional economy produces a variety of methods, among which the most important are: the balance sheet; system analysis and modeling; systematization; mapping.

According to W. Izard, «balance model is actually a nationwide model, disaggregated into its constituent regions. Economic balances are an effective means of spatial and regional studies, the role of which increases in the regulation of complex development of regions in formation of market relations in the country».

The system application balances allows to determine the basic economic relations in the economy and inter-space to select one with the lowest cost and capable of meeting the needs of the population and industries of regional specialization to choose a place for the construction of certain companies for the rational use of raw materials, fuel, water and other resources. The most famous are the material balances and inter-industry balances. Thus in the regions of the balances used by industry specialization. However, material balances allow you to analyze and predict the state of the commodity markets, may be used marketing services companies, the relevant departments of the administrations at all levels.

Applying the method of system analysis and modeling including a general study of the region's economy and its spatial structure there is a gradual formulation of the goals and objectives of the cluster. Here the emphasis is on consumer preference. With the gradual improvement and complexity of the interaction of spatial entities there need to develop and use economic and mathematical models of territorial and economic processes.

#### **The ranking of regions according to groups of risks:**

In Russia, the transition process is complicated and lengthened to a great extent due to the heterogeneity of its economic space, strong regional differences on the ability to adapt to market conditions. In accordance with this situation you can identify the most at-risk regions:

- The regions specializing on the production of goods, suddenly lost customer demand and as a result have become unprofitable
- Regions where the product prices were lower transportation tariffs
- Regions left without federal subsidies for the development of production

So, for depressed regions can be attributed diversified territory with some branches of the military- industrial complex, textile, engineering and mining industries. This fact is primarily due to a decline in demand for manufactured products, low competitiveness and unprofitability of production in market conditions. Regional problems are also often determined by the imbalance of market reforms in various fields. For example, the market self-regulation of employment in regions hampered by the lack of real housing market, promoting labor mobility, slow development of small and medium enterprises, absorbing the redundant workforce from the reconstruction of large enterprises.

The policy of liberalization of foreign economic activity has contributed to the acceleration of market reforms in the economy and allowed greater use of the advantages of the international division of labor. However, not all regions of this was out of a difficult situation as the conditions were more favorable regions exporting raw materials (oil, gas, non-ferrous metals, diamonds) as well as large trade and mediation centers (Moscow, port cities). Therefore, regions with a focus on production was unprofitable due to cheaper import-substituting goods.

The crisis situation in the country which began in the 1990s, affected all regions, without exception but the negative effects are regional variations. Thus, in the more troublesome regions proved to military production, lost government contracts, investment engineering and construction of production bases, production of light industry. Huge damage was caused by the explosion of the regional economy inflationary forced to have greater working capital (due to the concentration of production with a long cycle and the seasonal importation of goods) and the population of regions with higher cash savings (the North and the far East).

By 1994, there were regions with a positive GDP growth, industrial production and personal income. However, the peak growth occurs on the capital and in other regions of the continued economic slowdown.

Transformation of economic relations in Russia, combines with the transition from a unitary state to a system of real federalism. This step is accompanied by difficulties in the relations between the center and regions on the allocation of state property, tax, financial transfers and so on. The division of funds between the federal authorities, economic operators and local authorities is accompanied by a desire for independent operation which is typical in most of the some of the republics in the Federation and peripheral regions. As a result of the presence of the regional diversity of the country to borrow some tried and tested in the world practice model

of transition economy and polity is impossible. Therefore, you want to create a model that combines the village of individual components of the existing practices. This is all the more important that a noticeable lag behind many developed countries in arrangement of a common economic space due to the protracted crisis intensified.

Without solving many problems of the organization of a common economic space, Russia is slow to respond to new global trends. The historical heterogeneity of economic space has a significant impact on the evolution of the state system, the structure and efficiency of the economy, the strategy and tactics of institutional reforms and social and economic policy. Therefore, the question of whether to increase or decrease the heterogeneity and differentiation of economic space matters from different perspectives.

Reducing regional differentiation means convergence regions in terms of socio-economic development which favors for effective development of the national market, the harmonization of socio-economic transformation, the formation of a qualitatively higher level of all-Russian mentality, strengthening the unity of the state.

However, the reverse process is difficult to carry out a general policy of socio-economic reforms and the formation of the national market, the Sami provoking the emergence of regional crises and inter-regional conflicts, the disintegration of the national economy, weakening the integrity of the state and society.

The following aspects may characterize strengthening regional differentiation: availability of market competition, varying degrees of ability to respond to changing market conditions; reducing the state's role in the regulation of market processes, accompanied by a reduction of federal financial support, the abolition of most of the regional economic and social condensers.

Modern economic space of the country includes the problematic regions, unable to solve their own social and economic problems and therefore requires the active support of the state. Due to the failure of their own capabilities to ensure its normal functioning and development, may be accompanied by political destabilization, man-made and natural disasters and the impact on the overall strategic development of the country.

Depressed regions are fundamentally different from the backward that at lower than the national average, today's socio-economic indicators in the past these regions are more developed and in some industries feature prominently on a national scale. This is due to the fact that it is inherent in a high enough level of accumulated economic potential, a significant share of industrial

production in the structure of the economy, a high level of skills of local human resources. However, in view of the circumstances these regions lost its former importance and relative advantages. Thus, among the depressed regions distinguish two types of regions: «pre-reform», the recession that began even before the market reforms and «new» depressive regions recently in crisis and unable to get out of it.

Due to these circumstances, it is necessary to develop the most effective measures to overcome the depressed regions of the decline stage:

- Funding from public funds: currently such measures are provided for some Northern areas of the country experiencing the greatest difficulties such as the development of programs for state support of the northern areas of the Irkutsk Region. The emphasis is on the study of the investment attractiveness of the regions
- Conversion of industrial structure which is realized by the state to create new production facilities
- The provision of public benefits and subsidies to newly created enterprises and organizations in the advanced industries, creation of infrastructure with the support of the authorities, the creation of joint ventures with private firms, technology centers
- Improvement of technologies for the use of their own natural resources potential and the development of locally appropriate competitive industries

Sustainable development of competitive advantages of the region depends on the development of such a development strategy for each region. This regional strategies of different types of regions can differ from one another and from the average characteristics of the summary of the national strategy. The motion to sustainable ecological and socio-economic development of certain regions should not be at the expense of the degradation of other.

Keep in mind that decisions on the creation and development of various forms of clustering should be based on a strategic analysis of the resource potential of an industry in the region which includes the following steps: analysis of internal trends and patterns of resource potential and analysis of the external environment; analysis of the balance of the industry; assessment of security in the region; identification imperatives and limiting the boundaries of the resource potential; integrated assessment of the development of the industry; analysis of the structure-forming enterprises of the sector. «...When analyzing the state of the structure-forming enterprises is necessary for each

selected cluster group to assess their territorial distribution with the requirements of the effective organization of economic space, the profitability of business entities, the level of innovation, production and services, the competitiveness of services, financial stability, a share in the formation of a profitable part of the regional and municipal budgets, development trends and the impact on the socio-economic situation of the region in the medium and long term». Given all these circumstances, the current governance structure of the resource potential of the region should undergo certain changes.

«...On the basis of a polycentric model of economic development it should be recognized that the efficiency of the economy are equally determined by the efficiency of management, both at the federal level and at the level of individual territorial systems. It is proposed to allocate three basic types of organizational structures: strategic, planning and operational».

For strategic management organizational structure should include permanent bodies of territorial public administration system. These agencies implement the functions of strategic, long-term planning of socio-economic development, continuity of data collection and analysis, identifying development targets, development of measures for regional development, organization development projects and monitor their implementation. Strategic organizational management structure differ centralized nature necessary to ensure the unity of strategic decisions and long-term development of the region. The management body of the region to perform certain functions of management:

- Political is characterized by the influence of the two parties. On the one hand, the administration of the region is actively involved in shaping the concept of national security of Russia. On the other hand, the political function of administration of the region is related to the active participation of the population in the implementation of socio-economic development of cities and regions that make up the region through local governments and public administrations
- Technological: currently, the regional administration carries out the restructuring of the economic complex, given the laws of market relations and peculiarities of geopolitical and socio-economic development of the territory in order to increase competitiveness
- Economic: the administration of the region, taking into account the technological concept of restructuring, forms an economic mechanism to ensure the implementation and development of the program of activities aimed at restructuring the economic complex of the region

- Social: last on the list of features but it is not the latest content. Social function occupies the most important in the implementation of the final socio-economic goals and the involvement of people in the region in the implementation of region-wide strategic objectives

advantages of the region. To install the necessary reforms in the direction of the region's economy you need to conduct macroeconomic analysis of the region. This means that you want to study the aggregate macro-economic describing all the components of the regional economy as a socio-economic sub-system of the national economy.

**Model sustainable development of competitive advantages of the region:** Cluster structure of the economy should be adequate to meet the s model of public administration, contributing to ensure the development of competitive

Model effective government economic development of the region consists of a set of elements, based on the definition of objectives, the regulation clear responsibilities material incentives for achieving results.

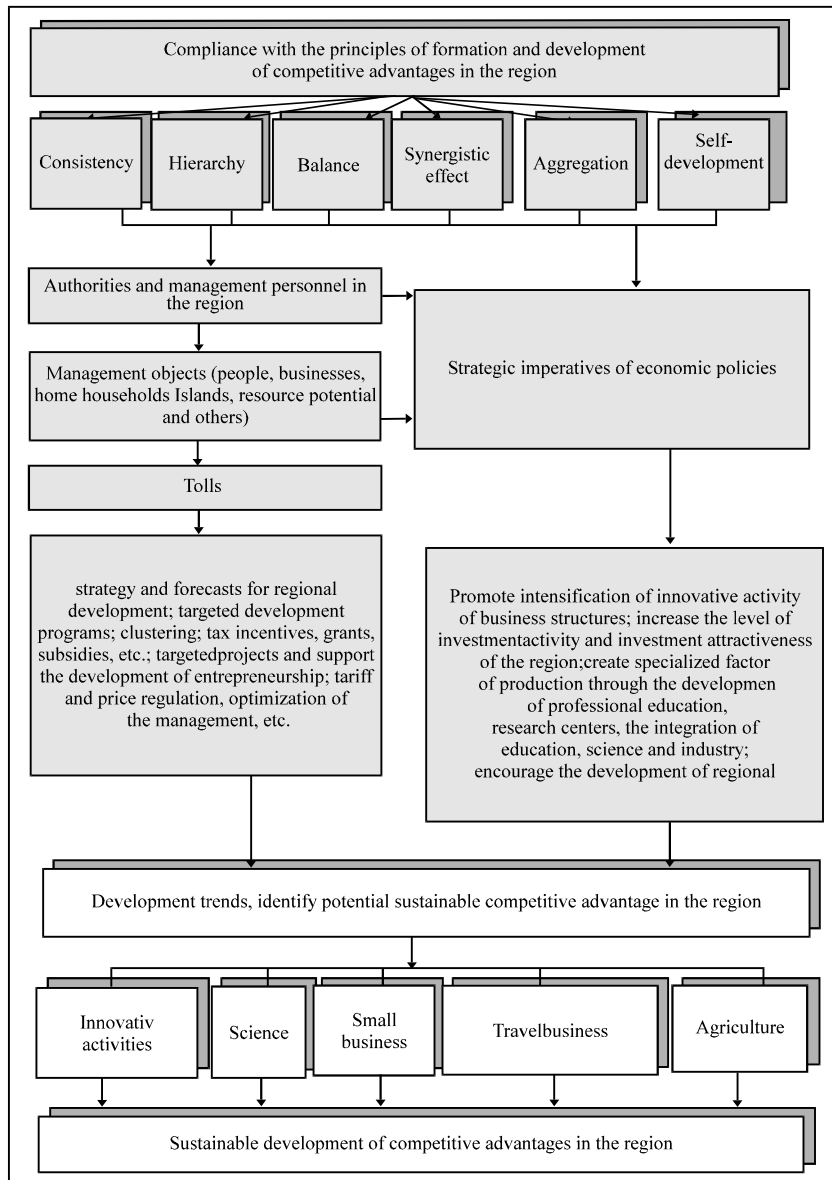


Fig. 1: Schematic model of sustainable development of competitive advantages of the region (the copyright development)

The initial element of this model is to develop a long-term strategy (Indicative Strategic Plan) social and economic development of the region.

We have proposed and justified a model of sustainable development of competitive advantages of the region (Fig. 1) with the universal address orientation because it makes it possible to include management tools for a variety of vectors functioning of life in the region, whether it be questions of the formation of regional management, the definition of objectives, current and strategic challenges, key trends and patterns, principles and ways of implementing the regional development programs to the micro-economic processes of effective planning and use of functional, resource, competence, technological, organizational, structural, methodical and Instrumentation and other types of internal production potentials.

In this regard, the proposed development should be viewed as a definite step in the systematic theoretical understanding of the affected regional transformation that has immediate practical significance.

## CONCLUSION

Thus, the analysis of regional management, its specific features, revealed the basic laws and principles and on that basis to conclude that the proposed model of sustainable development of competitive advantages of the region must comply with all of the following requirements:

- To create institutional conditions for accelerating the transformation of the economic system and the establishment of a fully fledged system of regional economies in accordance with innovative vector of its social and economic development
- To formalize on a strictly scientific basis of goal-setting development of the region according to the vector nation-wide socio-economic policies and market behaviors
- To preserve the unity and balance of interests of all participants of the regional economic system
- To promote the development of mechanisms to ensure the flexibility of the regional economy to changing environmental conditions and to fully realize the existing potential of the region
- To vary the combination of factors phased reproductive development
- To coordinate the restructuring process of the regional economic system
- To strengthen processes for identifying innovative ways of development of the regional economy

- To harmonize the interests of different groups of participants of the regional economic space, directing them to achieve a common strategic goal
- To establish and maintain a manifestation of creativity in various fields
- To bring up the subject of each of the regional economic system a strategic vision of social and economic development of the region and to carry out periodic evaluation of the results achieved with the planned indicators of development
- Planned to implement the strategic plan
- Strengthen and streamline the mutually beneficial cooperation between regions
- Enhance the competitiveness of the region and enhancing the region's competitive position in the global division of labor, product and services
- Improve controllability of the regional economic system that directly affect the growth of the quality of life of the region

So, in the model of sustainable development of competitive advantages of the region determines the direction and course of action of the regional administration for the implementation of competitive advantages based on the strategic imperatives of socio-economic development of the region, allowing you to create comfortable living conditions for citizens and their needs, improve performance and informed decision by the regional administrative decisions, the transition to a sustainable path of development.

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