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Becoming and Growth of Cluster Management in the Regional Economy of Russia

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ABSTRACT

The policy of industrial management of the country's regions in the socio-economic sector puts the economy of the Russian Federation about development and ways of improvement, as well as the mechanisms regulating their development. A new mechanism in the perspective of improving the competitiveness of the country and its regions in modern economic development is the cluster model of formation of the regional economy. Formation of cluster policy in the regions and the existing model of management, shows a positive effect on the example of foreign experience. The positive effect is reflected in the competitiveness of enterprises and individual regions, innovation activity of enterprises in the regions, where there are clusters. Therefore, the development and formation of cluster management in the regional economy of many developed countries has received such wide distribution, which leads to promotion of clusters in the world. Development of cluster forms of organization of regions in recent years has received wide promotion in the Russian Federation, and it becomes a priority for the development of the national economy. Formed the principles for the management and maintenance of clusters in the country; the issues of increasing the efficiency of cluster management. Attention all participants of the cluster process and the negotiated settlement of relations between the state and entrepreneurship in the regions. Despite this, the issues of cluster policy are still poorly understood, which reflects the relevance of the chosen research topic.

JEL Classification: M15, M38, P25, R10.

Keywords: Regional economy, cluster management, cluster, territorial-production cluster, innovation.

1. INTRODUCTION

The planned economic system of Russia is almost completely pushed into the depths of the years the concept of cluster as a unit. In Russia, clusters were formed in the 30s – 40-ies of XX century.

The era of the industrial revolution. In that period, was formed a few small clusters representing vendors operating in the export, but mostly of the industrial variety was kept diverse culture. In the Soviet Union was formed the definition of “research and production complex” and “clusters” that reflect the principles of the cluster. But clumsy structure and adopted the view of production management set clear limits on their functioning. For example, the decision which supplier to prefer, often at odds with the requirement of production, and the decision was made that was convenient management staff (Bludova, 2006). It is not always positively affected the efficiency of production, as all regions differ in geographical, natural, economic etc., and that one region will be profitable, then the other will become unprofitable. The industrial complex was based on the views of the intra-Union distribution of labor, at that time a huge number of suppliers had the opportunity to place their power at far distances from public housing production. In the Soviet Union the process of organization of production formed by the hierarchical structure of the “industrial center – complex – region”; together with this, the cluster is represented today by the network principle, features horizontal structure of production “center – suppliers”. Since the collapse of the Soviet Union, the production structure formed between the companies were divided and a part of the industrial entities stopped production and ceased to exist (Georgieva, 2006; Gorlin et. al., 2011).

The methodological and theoretical basis are monographs of Russian and foreign authors, research publications, scientific articles in the field of cluster management on issues of formation and development of clusters as an element of competitiveness of regions of Russia. Basic principles of the study are based on the study of cluster of regional economy, driven by Russian and foreign scientists.

2. THEORETICAL ANALYSIS

The formation and development of a successful cluster is the integration of the concepts of entrepreneurship and free competition, which recognizes the favorable experiences of the synergetic effect of management of regional economy. Partnership of companies of the cluster can form a positive potential and sustainable development of the territorial device that doubles the available capacity of a given region. Growth has a positive effect, allowing you to double the profit, and efficient use of natural resources and opportunities of the region extends the life of the partnership and beneficial to the economy. And the competitive struggle that exists between all members of the cluster, which allows to optimize the processes of production, through the exchange of information and expertise where specialists create additional opportunities for increasing production capacity. In this process, there is a redistribution of resources in different sectors and in those where the most necessary investments.

Competent management of clusters leads to an increase in profit of the enterprises included in its composition. This process allows you to reduce costs and to organize the tax base and improve revenues in the region. For small enterprises, the cluster significantly lowers the output levels on the markets, services, workers, etc. the Reputation of the cluster as a whole is reflected in the attitude of individual companies and their products. Relying on the reputation of the cluster, small companies receive enhanced access to financial resources (Gromyko, 2009).

3. DISCUSSIONS

The cluster's enterprises that are located geographically, interconnected businesses, suppliers, logisticians, packers, assemblers, research institutes, universities and other businesses that complement each other and strengthen the competition level of individual organizations and individual cluster. The relationship of enterprises and companies, which form a cluster, form a community of cooperation and free competition, and there has been a steady exchange of human resources, innovative developments and equipment, technology, implements joint application infrastructure capabilities, services, advertising and marketing opportunities. Businesses and companies that form the cluster, are predominantly independent business types, and the competition generated within a cluster is also a significant progressive capacity development of the cluster as a whole, rather than cooperation. Under stable competition processes are optimized and increase opportunities for participants in global competition (Gromyko, 2009).

Typically, clusters are formed in the areas where it is expected or is already in the process of promoting technological innovation, and planned output of products in new markets. Today the cluster approach and its management is increasingly being applied in developed European countries, and has just embarked on the track of industrialization, supporting the most promising projects of entrepreneurship and innovation (Bogoviz, Ragulina & Kutukova, 2016). Mainly companies which are included in the cluster, brings together all industry enterprises, using their knowledge and experience for mutual benefit, these include: new technologies and the movement of staff from one company to another cluster, for the application of best management practices.

Typically, modern cluster is formed from small businesses that typically do not compete among themselves, and if this happens, the benefits from competition is minimal. Along with this, the cluster companies benefit from close proximity to each other, the positive is its territorial qualified personnel and infrastructure. The successful functioning of clusters forms a process of mass production, which is concentrated on imports. In this case, the formation of clusters requires significant integration of regions into a single economic space (Figure 1).

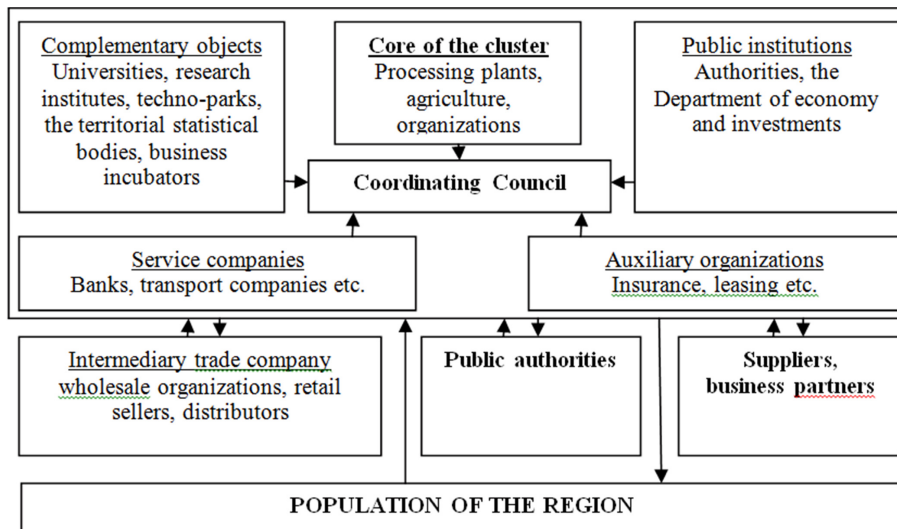


Figure 1: Design of the economic cluster of the region on the basis of administrative partnerships

There are a number of issues and complexities that hinder the development of the cluster approach in the regions:

- (a) low level of business climate in the region and the degree of infrastructure development;
- (b) the insufficient level of educational and research level, based on the requirements of the economy;
- (c) not enough close business relationship between the production sector, educational and scientific enterprises;
- (d) poor performance of the industrial and professional enterprises;
- (e) is extensively used short-lived effect of planning, and the valid cluster management benefits from the formation of the cluster are visible through five – set years (Markov, 2010).

During cluster formation sets goals and defines the main objectives, and formed part of the participants, which are interconnected in the creation and promotion of products, are utilities and social infrastructure, create research institutes to develop innovation, Universities for the training of professional personnel, etc. For education dynamics within the cluster with the involvement of a large number of participants. This will allow you to organize and in the long term to maintain the positive dynamics of relations between midsize and large suppliers. A large number of participants will allow the cluster to maintain stability to external influences or the onslaught of another type, including the loss of the enterprise.

Today is the actual question of the transition from the extension of the model of economic surge based on the commodity economy to the innovation model of the formation, drawing on international experience. New method of formation of the economy based on long-term models of socio-economic formation and promotion of territories at different levels: national level, region Federal districts of the Russian Federation subjects, of municipal formations.

In the formation of clusters formed strong ties between all participants which are located in the regions of formation of innovative development, which positively affects the regional and national economy and gives a synergistic effect. Synergistic effect gives the possibility to form favorable conditions for the promotion of innovation in industry and the emergence of new ventures competing on the market the innovation Process implies the formation and development of cluster management, with its scientific and technical potential. The main objective of the development of the cluster system is the enhancement of the diversification of the regional economy in the context of innovative model of development of the region (Markov, 2010).

The use of regional cluster approach will provide a number of benefits for the national economy:

1. Increase confidence, stabilize relations between enterprises of the region, will provide a synergistic effect of all the companies included in the cluster;
2. Structures the business process, there will be a process of optimization of values in the production, will create favorable conditions for doing business;
3. Stimulates economic growth, increase the competitiveness of the region, will enable an additional increase in GDP and tax revenue;

4. Improves the lives of the region's population;
5. To explore new territory;
6. To improve the investment climate in the region.

4. RESULTS

The concept of a cluster is primarily a social phenomenon. The cluster is formed in the society, which has a similar economic preference. Cluster is a method specific orientation and the expression itself (the territory individual cities), for functioning in the conditions of rigid competitive struggle with foreign suppliers, when national boundaries are blurred, as certain economic incentives. Increasingly, you can hear the professional point of view in Economics that separate the regions within which the formation of clusters, are certainly in a better economic environment. Such regions contribute to the definition of competitiveness of the Russian economy. If talking about regions where there are no more clusters, they are of minor economic units, and often have a powerful social crisis (Porter, 2009).

According to the project "Program of development of innovative territorial clusters", dated 22 November 2011, the decision of the Governmental Commission on high technologies and innovations, a competition was announced for the program of development of innovative territorial clusters.

In the selection of the list of requirements included the following criteria:

1. Scientific-technical and educational potential of the cluster in the region;
2. The quality of life of the population and the level of development of infrastructure of the territory regional cluster, such as: transport infrastructure, engineering, energy, housing, etc. (Mindlin, Zhukov, Prokhorova, Shutilov & Belova, 2016);
3. Competitive production potential territorial clusters;
4. The level of organizational development of the cluster.

The study takes into account data of the following blocks:

- current status of development of the cluster;
- the dynamics of the considered indicators of the development of the cluster;
- the dynamics of planned activities and realistic implementation of the activities planned in the program of development and functioning.

State support for development of the region can qualify clusters, which are characterized by a combination of global competitiveness, which are formed on the basis of the enterprise show stable high dynamics of growth of volume of production, with a fairly high level of scientific and technological progress and potential.

Today in the program of state support of the Russian Federation there are 25 territorial clusters. These clusters are located in areas with a high level of concentration of productive activities and scientific and technical potential (Table 1).

Table 1
Geography of clusters in Russia

<i>Subject of the Russian Federation</i>	<i>Total</i>	<i>High index</i>	<i>Average index</i>	<i>Initial index</i>
Volga Federal District	7	1	2	4
Central Federal District	5	0	2	3
North-Western Federal District	4	0	0	4
Siberian Federal District	1	0	0	1
Urals Federal District	1	0	0	1
North Caucasian Federal District	1	0	0	1
Southern Federal District	0	0	0	0
Far Eastern Federal District	0	0	0	0

The Ministry of economic development of the Russian Federation allocates public grants to support clusters in the amount of five million rubles annually from 2013.

According to statistical records reflected the following financial and economic indicators of regional clusters, which have an impact on the country's economic situation:

1. The total number of jobs at the enterprises-participants of industrial clusters in 2015 amounted to 142 083 units of the Given indicator is calculated from the number of 17 regional clusters.
2. The share of high-performance workplaces at the enterprises participating in the industrial cluster in 2015 amounted to 76,50%. This figure is calculated from the number of 18 regional clusters.
3. The share of tax and customs payments of the participants of the territorial cluster to the Federal budget amounted to in 2015 803,86 33 million. This figure is calculated from the number of 8 regional clusters.
4. The number of small and medium enterprises industrial clusters in 2015 amounted to 269 units. This figure is calculated from the number of 17 regional clusters.

Currently active work on the formation of regional societies, research and educational clusters. There is an approved list of such institutions: "Center of innovation development and cluster initiatives of Samara region", "Center of cluster development of the Astrakhan oblast", "Institute cluster development of Voronezh region", "cluster formation of the Kurgan region", "Center of cluster development of the Republic of Tatarstan", "Center of cluster study in Tomsk region".

Representation of clusters – the view international. You should bring the example of European cluster system, upon which you can form an idea of the positive experience of education and to apply this scheme in the Russian regions. Today in Europe alone automotive clusters, there are about ten. And note that until recently, the clusters in the sphere of production was mainly in the developed countries of Europe, are increasingly gaining momentum manifestations of this system and in developing States. Thus, the automobile cluster has already secured its existence in Eastern Europe (Slovenia, Hungary). The same works occur outside of Europe, leaving Asian borders (China). Recently, the media published reports about the development of the cluster in the region Guangdong - around car Assembly plants, Japanese companies have brands "Toyota", "Honda" and "Nissan". Journalists have already covered this industrial formation of "the Chinese Detroit".

Special emphasis on the issue of diversion of the state's role in the formation and management of clusters. You cannot cluster to form only at the top, this should contribute to more effective methods for economic development at the regional level, such as special economic zones.

Public authorities act as "steering and control" measures in the development of the cluster region, which helps to maintain demand for the products and services of the region. Produced in a given cluster or suitable conditions for improving the quality of educational services in a particular region, research activities in the cluster etc. In several European countries, the state generates priorities for clusters, promoting "entrepreneurship in the mass," highlights the idea of efficiency of clusters.

In addition, the state can be presented as an active investor, a priority in the social, economic, environmental, infrastructure - oriented projects that contribute to the development of clusters (Sergeevich & Vladimirovich, 2015). There are unitary forms of state support of clusters, such as simplified forms of tax incentives.

In the formation of cluster policy in our country, we should rely on the foreign successful experience, since for us it is a concept and a new phenomenon, not yet fully developed (Silnov, 2016), although formed according to all principles of foreign development. So, it is necessary to build on the successful trends of China, neighboring and friendly to the Russian state. The Chinese experience in the field of formation and management of clusters is a very interesting and original. The state plays a key role in providing support in the form of tax benefits and advantages. The global financial crisis has a crack in the traditional export processing zones development clusters, which are oriented mostly on the domestic Chinese market continued its dynamic development.

With the support of the State Committee on development and reform will carry out the following:

- innovative methods of planning and management, the state fully controls the process of creation and coordination of clusters to avoid improper investments;
- supports the intelligent use of natural and other resources, taking care of the environment, control water consumption, land, etc.;
- by all means support successful companies and increases the level of clusters, reduces the level of competition;
- supports and promotes innovation, use of new technologies and transport logistics between enterprises;
- progressive development, and sustainable available technologies;
- supports the idea of branding;
- different kinds of services for business both large and medium.

In the Russian Federation developed the concept of socio-economic development until 2020, which reflects the direction of development of cluster policy:

1. Territorial-production clusters, which specialized on high-tech types of production in major sectors of the economy, with the concentration of these clusters in isolated regions of the country. In the foreground, there is the question of considering the possibility of support for clusters

(such as financial, administrative and infrastructural regulator), distribution of products of the companies of the cluster on the domestic and foreign market; the generation tool to facilitate the formation and capitalization of domestic priority brands, the award of costs of foreign patent protection and appropriation of intellectual property abroad;

2. Territorial and production clusters, which are formed on the non-priority areas, with fewer prospects for the improvement of the economic situation in the country, which focused on primary processing and production of energy sources with advanced technologies such as: petrochemical cluster, energy, industrial clusters, focused on the operation of hydropower, and forestry clusters, etc.;
3. Tourism and recreation clusters, which are located in areas with unique natural resources and unique landscapes that have a rich historical and cultural heritage, are of value for national heritage.

The important point for the formation of territorial clusters is the creation of more jobs in high-performance industries. Based on the reports of the Ministry of economic development of Russia, you can see the statistics: according to 2011 year the total number of jobs in the enterprises included in the clusters with the level of wages, which exceeds 100% of the average income level in the regions of location of the cluster is equal to 179 617 units. In 2016, their number has grown to 331 692 units, this represents 84.7% of.

Today the economy of Russia formed the strategic goal to enter the innovative way of development of the regional economy. In modern Russian economic and social conditions, diversification of the economy is not without instant and widespread in all areas of activity of the enterprises, on this basis, formed by the process of cultivation of regional facilities growth. In Western countries have long applied the cluster approach, it existed in Russia before. Rare earth tells about the history, growth and prospects, which reveal clusters (Purdenko, 2007).

5. CONCLUSION

The starting point to enhance the effectiveness of the current regional industrial complexes is the complex configuration procedures of the production processes that consist in combining different production stages, based on knowledge of the innovation process. The use of innovative approach in the formation of the cluster system leads to a qualitative change, integrating regional economic system with a technological breakthrough. The formation of business associations allows you to create highly competitive agglomeration on the regional market, unlike separate companies, this meets the current requirements of development of market economy, which is characterized by the reduction of transaction losses, reasonable application of both natural and human resources. Along with this, the favorable economic effect, which is achieved by integration of the technological advantages of enterprises, consisting in part of one cluster in the same area or close territories, it gives an incentive to increase the competitiveness of individual regions. This is the main condition for the formation of the cluster in the region, contributes to their socio-economic development and increases the number of jobs and the standard of living of the population.

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