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### The Entrance of Modern Economy of Russia Onto the New Trajectory of Growth

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#### ABSTRACT

The paper investigates into the development of trajectory of the modern economic growth in Russia on the basis of strategic spatial development of regional economy. The necessity of the implementation of cluster management as a combination of sectoral and territorial management in order to create conditions for the effective functioning of the region and the national economy as a whole, resolving the contradiction between resources and the needs of society in the context of globalization is stressed. Competitive challenges in the development of national economies in the XXI century due to new global trends such as the transition of macroeconomic systems to the cluster of the regional system are considered. From this perspective, the advantages of the cluster approach to the strengthening of the competitiveness of the territories, as well as the benefits of clusters as mechanisms for increasing productivity on the basis of continuous innovation are analyzed. The cluster approach in the regional economy development is proposed to be interpreted as a growth driver. These circumstances demanded a full rethinking of modern business success criteria, above all, from the standpoint of the formation regional innovative clusters (RICs). Priority areas for the formation of the competitive advantages that would provide for economic growth in Russia are proposed.

**Keywords:** Global competition, meso-level, clusters, business, regional economy cluster, cluster management, institutional regime, regional innovative clusters (RICs).

## **1. INTRODUCTION**

The current situation in Russia is characterized by a difficult economic situation. The old model of growth based on the redistribution of oil and gas rent has been completely exhausted. Russia needs a new model of economic growth. “Russia’s economy in 2017 is expected to reach a growth path, it is important that this growth is progressive,” said Russian President Vladimir Putin (Putin, 2016). In the XX century, developed economies focused on achieving macroeconomic stability to ensure greater stability (the Washington Consensus) while developing economies focused on progressive changes in the production structure; now all types of economic systems are increasingly relying on regional factors.

As a result of increasing global competition, there is a shift of economic development towards the mesolevel, i.e. the development of certain regions (locations). There is a new paradigm of economic growth: it is now largely dependent on the national competitiveness of the business environment in the regions. The problem of economic growth is no longer the exclusive domain of the state and business. It now can be solved only through the interactive coordination of actions for the different stakeholders in a particular area. And, above all, the successful solution of this problem is due to the formation of a certain institutional economy mode, which clearly directs resource flows toward the so-called cluster groups, the most competitive ones, and within them towards the most efficient companies. This particular institutional regime is the focus of the theory of competitive advantage developed by Michael Porter, the head of the Harvard School of Business. This theory links the growth of competitiveness with the continuous improvement of the economic environment, the state of which depends on a broad set of macro-, meso-, and micro-economic factors presented by Porter in his “diamond” model, which should provide such an organization of relations in the economy which would promote intensive emergence of new initiatives and their transformation into strong innovation clusters. (Nosova, 2014).

Innovation clusters are a joint project of companies, research and educational centers, development institutions and local authorities to build an innovation cluster network on a given territory. According to the Central Economic-Mathematical Institute (CEMI) scientists’ description, they are network structures that do not just rely on the horizontal connections between companies and other organizations but are endowed with elements of self-organization, self-regulation and inter-firm coordination.

## **2. THEORETICAL ANALYSIS**

A cluster organization provides a platform for building network connections and forms a system of self-government of a cluster project. Its activities are focused on the maintenance of such dynamic interaction which ensures the continuity of the innovation process and leads to the strengthening of the cluster competitiveness. Therefore, the main task of the cluster organization is to bridge innovation gaps, i.e. it comes to establishing the interactions of internal connections in the cluster (business-science-education-sponsors-government authorities) and in the relationship with the external environment cluster (cluster global market).

To fulfill its tasks the cluster relies on a team of strategic project management (cluster governance) and line management group (cluster management). The management team develops a cluster development strategy for subsequent approval by all the participants. The management function is performed by a small group of professionals (4 people on average) which holds regular events to discuss joint strategies for cluster

development (Katukov, 2014). With the advent of clusters, the State changes its position. It becomes a player on an equal footing with other institutional sectors, entering into interaction with them at the level of specific tasks and clusters in the dialogue at the level of the whole economy.

With the current dynamism of business, environment authorities are no longer able to set priorities exclusively. In the XXI century, the function of the selection of the most promising companies, industries and technologies are carried out by competitive markets themselves, and the state takes up the historically new role of a network intermediary. The modern state helps the representatives of business and science first to find each other in an effective network of partners (creation of technology platforms), and then to put forward and implement joint cluster projects. It is by no means a coincidence that “Innovation Center “Skolkovo” has been built in Moscow, Russia by the initiative of the state (in 2010-2011 it was often described as a “Russian Silicon Valley”). It is a modern scientific and technological innovation complex for the development and commercialization of new technologies. It is a city of science, now under construction “from scratch”, as well as the separate area, a Moscow city district. The complex will be provided with special economic conditions for companies operating in the priority sectors of the modernization of the Russian economy: telecommunications, space, biomedical technology, energy efficiency, information technology as well as nuclear technology.

The project of creation of the Innovation Center is implemented by the Centre for Development and commercialization of new technologies (the “Skolkovo” Foundation). The result of the activities of the “Skolkovo” Foundation should become self-governing and self-developing ecosystem favorable for business development and research, contributing to the creation of companies successful in the global market.

Creation of such a center is the only way to overcome the innovation backwardness of the Russian economy as compared to other, more advanced economies included in the all-powerful global competition. Of course, this is the result of a certain state intervention, which, of course, is contrary to the canons of the market economy. However, so far there is no other way of the innovative revival of the Russian economy but to the method described above. Moreover, it has become widespread, contributing in certain regions to the formation of an environment favorable for innovation, to the transition of regional economies onto the path of establishing of new organizations – regional clusters of innovation (RICs).

The analysis of the world economic practice shows that the cluster communities are grouped, as a rule, on the basis of scientific, educational, industrial, technological, institutional, and commercial relations. A key role in the orientation of the cluster economies is played by an innovative system which forms the basis of formation of RICs.

The formation of regional clusters of innovation is one of the most important concepts in the modern Russian economy, for, proceeding from the international practice clusters are able to provide innovation and growth of competitiveness of not only the region but of the national economy as a whole. The new organizational order, designed for the growth of innovative initiatives, transforms the prevailing sectoral management and all its sub-systems into the territorial – branch one and pushes in the direction of a dynamic self-development on the basis of synergy effects. The interaction of many participants of the RIC – the science and education, business development institutions and power – corresponds to the new management type. The development of the cluster way of development of the regional economy will provide a powerful impetus for the modernization of the national production and increase of competitiveness in the face of

globalization. As part of the “Skolkovo” foundation there are five clusters, corresponding to the five areas of innovation: the cluster of biomedical technologies (BMT, since 2016 includes Agro-cluster), a cluster of energy efficient technologies (EET), the cluster of information and computer technology (ICT), a cluster of space technologies and telecommunications (ST&T) and the cluster of nuclear technologies (NT).

### **3. RESULTS**

Regional economy clustering policy (RECP) can be successful, provided it takes into account all the key factors: the expansion of cooperation ties between economic entities; building up of industrial value chains; development of import-substituting industries and competencies; increasing the investment attractiveness and competitiveness of companies and their home regions.

RECP fundamentally changes the organizational structure of production. On its basis, RICs, which is now considered as a prerequisite for overcoming the economic crisis and achieve high growth economic competitiveness of regions and the country as a whole, are formed. Therefore, the problem sounds very simple: using the experience of developed countries, it is necessary to build a cluster regional economy that integrates the leading research and educational institutions, high-tech production, development institutions and public authorities in a particular region.

Lack of research and exclusivity of problems of RICs cause the need for a new structural and investment policy, balanced with an innovative strategy. Formulated scientific and methodological foundations of complex realization of cluster policy in the real economic system allow implementing innovative modernization of the accumulated potential in a single reproductive cycle of innovation. The solution of the strategic problems of RECP is considered on the basis of a comprehensive implementation of innovative technological platforms balanced by way of attracting investment, intellectual labor and production resources on the basis of the development of investment schemes and placement of innovative production in the regions in order to invest the strategic priorities of innovation development of balanced reproduction in Russia.

Modern Russia is seeing the steady growth of popularity of the idea of a cluster. It is being studied by the economic, managerial and sociological sciences. We can even say that the role of clusters in economic development is to some extent made a fetish of. Is this right? In Russia, they have appeared quite recently. Russia’s economy is covered by a systemic crisis. Theoretically, we are “for” clustering regional economy, proving its advantages in the context of a fundamental change in the development of economic systems in the XXI century. But when it comes to their practical implementation, Russian clusters still appear but small a driver in ensuring sustainable growth and competitiveness of the regional economy.

In this respect, it seems to be of interest to develop and study new models of development focused on solving problems of regional strategic management. This development is connected to the solution of problems on several fronts: the establishment of new information, software, and technological support, the creation of new crucial rules of generation and support of decision-making on the basis of a new management methodology in the external environment as well as in the internal territorial and sectoral environment. In other words, it is necessary to take into account the whole complex of regional destabilizing factors.

It in this aspect that the role of clusters in economic development should be considered. The cluster involves a sustainable partnership of related economic entities in order to obtain a synergistic effect as a

result of effective interaction between the capacity of partners based on cooperation. Cluster management of the economy is a new institution, i.e., the formalization of a set of methods and techniques to facilitate the use of the new development of a particular area management approaches. All clusters are built on the same concept: the interaction of different types of activities, ensuring the continuity of the production of the final product in a certain region.

Taking into account the spatial aspect, i.e., fixing activity in a particular area, there is a certain reboot of sectoral management method. Rooted in the past, it is now replaced by the cluster approach as a method of the intersection of sectoral and territorial management of the development of economic entities. As it has been correctly pointed out, the cluster management is a set of joint, targeted, documented actions, business, government, educational and research institutions, as well as other elements of the cluster to form favorable conditions for the business environment for the development of clusters and improve the effectiveness of all their elements. The introduction of the cluster method of economic management is objectively caused by the necessity of resolving the contradiction between the possibilities and the needs of society and business in the conditions of globalization (Nosova et. al., 2016).

The initial task of the state (society) is to eliminate all types of administrative, bureaucratic, economic, and other barriers preventing the emergence and successful implementation of new cluster initiatives. Authorities at all levels should promote the formation of any new network connections (for example, through the creation of platforms for dialogue) and the emergence of any new nuclear cluster groups, and then support the development of different economic incentives clusters. Thus, cluster management is a new form of regional government. Relying on interactive cooperation, official, business and scientific circles of the region can effectively address the issues of improving the quality of its business environment, research and development of its smart specialization and ultimately raising its competitiveness. Interactive planning of development of the regional economy “from the bottom”, by taking into account the specific local realities, is much more productive than the phased implementation of installations using “top to bottom” method in the framework of regional policy. However, the successful application of the cluster approach requires government incentives that promote education on the territory of the whole portfolio of innovative clusters with their cluster organization. Objectively, there is a need to develop new mechanisms for regional management based on modern strategic planning of spatial development of the country.

Cluster strategic management is not narrowly focused measures to create agglomerations and extensive efforts to encourage the emergence of cluster networks as tools for increasing national competitiveness. Clustering the economy is important for the very reason that strong clusters are the most convenient mechanism for its transition to an innovative type of growth.

Given the irreversibility of the changes of reality, where there are economic chaos and noise, the time factor becomes crucial. It determines the timeliness of cluster management responses to these changes (Enright, 1993). Therefore, there is an urgent need to find new approaches and methodologies in order to solve problems of optimal programming and management of processes that take into account the time factor and feedback. In the context of rapid changes in the environment response to the cluster management impending threat must be not only fast but also accurate. It is, therefore, necessary to develop a model of the optimal programming which could be set to any target of “goals and objectives tree”, and wherein the destabilizing factors must be considered (Rosenfeld, 1997).

In the given region “clustering forces” can come together and form long causal relationships. This will lead to a structural rearrangement of the region, to the formation in it of the so-called above-cluster forces (or meta-factors). Based on this and given the current understanding of the chaos, we can say that clusters are both an area in which a high degree of chaotic instability of the system is manifested, and at the same time the algorithm, or the rules by which factors (active forces), forming long causal relationships, transform the regional structure of the system and change the “reality” of its functioning.

As in the cluster where the rules of conduct have changed, the system starts to behave so when cluster forces can unite and almost instantly transfer the system from one state to another. This means that this area can again become stable and play the role of the strategic parameters of the order, i.e., it may again act as a strategic tool for forecasting and strategic choices.

#### 4. DISCUSSION

The cluster approach to strengthening the competitiveness of the regional economy determines the content of a modern model of economic growth aimed at creating new technological generation industries. Innovative territorial cluster groups which are formed at the level of such industry, become a new principle of stratification of the world and national economies – instead of the previous, sectoral principle that is not suitable for the production conditions of globalization.

Benefits of RICs:

- innovation, the main factor of clusters;
- a definite territory, that is the foundation of the cluster;
- sectoral focus, that is the specialization of a cluster.

This problem is not limited to the formation of new specialized sectors at the junction of branches. Properly organized clusters form a complex and dynamically stable system capable of self-regulation, like living biological organisms. Generating network synergies, they act as a pole of innovative growth, which allows raising the competitiveness of regional economies, and through them that of the national economy.

Economies succeeding in forming of a local network environment and deployment of cluster projects (in particular, the United States, the countries of Northern and Western Europe, the new Asian industrial countries), as is known, will quicker go to an innovative type of growth, and thereby develop in the most stable way, strengthening competitive potential. Conversely, regions where natural market mechanism of cluster formation is inhibited by all sorts of barriers (administrative, bureaucratic, infrastructure and others), face lack of tools to involve national companies into the global network, which condemns them to lag in innovation, diversification of production and, as a consequence, in the dynamism of development.

Therefore, we must understand that the primary importance for the growth of competitiveness of the economy is the establishment of business integration, science and development institutions and the state as part of their joint cluster initiatives (network model of public-private partnership), i.e. creating and maintaining a “barrier-free” business environment authorities for the emergence of such initiatives in local areas.

In other words, Russian corporate giants, buying up assets and some advanced technology from their potential competitors, are not needed for the involvement of national business into global production and innovation networks. On the contrary, the modern post-industrial world, tuned for dynamic change and continuous innovation, rests upon small organizational forms and horizontal communication (Smorodinskaya, Malygin & Katukov, 2012). It requires disaggregation of existing hierarchies, decentralization of government at all levels and creation of an attractive clustered environment. Since the 2000s, this new regional economy clustering course has been purposefully introduced in many developed and developing countries.

In world practice, there exist various forms of stimulation of cluster initiatives that involve the use of institutional mechanisms for a direct state support in the formation of clusters, as well as indirect, that is, budgetary preferences, promoting the development of new, strategic technologies. Institutionalization of the processes cluster ensures timely access to the necessary resources to overcome difficulties in the marketing of future products, helps to identify the real, long-term pathways and the necessary steps for entry and increase of its presence in the market. The specific character of methodical approach consists in the possibility of interaction and linking of the interests of technology developers, industrial production, development institutions, and authorities.

Despite the deep study of the regularities of economic space of Russia, including the research based on the principles of the cluster, a unified concept of spatial development of the regions in the present conditions has not yet been formed to construct and effectively use the competitive advantages of the regions in the networked economy.

Methodological issues that require detailed study in relation to the Russian regional features also include: the development of strategies (visioning) of creation and development of a particular cluster; the construction of the mechanism of realization of cluster initiatives and organization of the mechanism of interaction between participants within the cluster; justification of measures and mechanisms of state support cluster development.

The list of priority areas and technologies currently in force in the process of the RIC formation, according to the authors, is not well enough linked with government priorities and the needs of innovative development of Russia's economic system, which results in an inefficient use of budgetary funds. This leads to a violation of the principle of efficiency and effectiveness of the strategy based on the need to achieve the desired results with the least resource cost in accordance with the strategic planning documents developed within the framework of planning and programming.

## **5. CONCLUSION**

1. Selection of RIC as a new tool of economic management requires in-depth study of cooperation between R&D and business spheres, development institutions, and governments. In this aspect, the RIC should be regarded as a driver that defines the current socio-economic development.
2. RIC carries out the mission of a "core" in the scenario of socio-economic development of the country. To develop RICs, it is necessary to use both breakthrough (radical) innovations and supportive (improving) innovations. It is known that the development of RICs is due to the development of business, core competencies, innovation infrastructure. They help to ensure

balance within the three activities: investment, innovation and financial (methodology of practical implementation of the development process).

3. Russia in the unstable conditions of the current economic crisis should carefully prioritize the formation of clusters. Clusters aimed at innovative development, leading to a more rapid transition to modern technological structures should be prioritized. Known methods of forming clusters differ in their economic inclusiveness, but the algorithm of action sequences to form clusters is almost homogeneous.
4. Organizational and economic formation and functioning of the control mechanism of the cluster, designed by the government, allows us to hope that by generating network synergies they will act as a pole of innovative growth, which will raise the competitiveness of regional economies, and through them – national competitiveness as well.

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