



Clusters in System of Instruments of Territorial Development of the Russian Federation

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ABSTRACT

The idea of application of clusters as an instrument of territorial development of the Russian Federation enjoys wide popularity both on regional and federal levels that found the embodiment in formation of a number of the territorial economic structures which are officially referred to clusters. The purpose of this article is to determine whether the territorial economic structures being actively introduced in Russia nowadays can be referred to clusters. The analysis allowed to reveal the main types of the territorial economic structures created in Russia and to describe their distinctive features. Studying the territorial structures created in Russia shows that they can't be referred to clusters owing to basic discrepancy of the mechanism of their formation and the model of clusters emergence and development.

Keywords: Clusters, Territorial Managing Structures, Hybrids

JEL Classifications: M5, P25, P48, R1

1. INTRODUCTION

Nowadays the Russian Federation is in sharp need for the accelerated territorial development. It is connected with the necessity of involvement of new perspective zones of mining (for example, the Elginsky field) into economic circulation, elimination of disproportions in economic development of different regions (due to which economic activity concentrates in a limited number of the largest centers) and – not least – protection against potential economic expansion of other countries (this factor is clearly observed in the Arctic the resources of which are claimed by a number of countries, as well as in the Far East where Russia has to deal with enormous economic power of China). The problem is aggravated with the fact that owing to the western sanctions Russia is cut off from the sources of long-term financing (Zaernjuk and Leonova, 2014), and from the modern production technologies necessary for the oil and gas sector development (which is the basis for the involvement of new territories in economic circulation). Though the impact of sanctions on the Russian economy shouldn't be overestimated, it undoubtedly has a noticeable negative effect and prevents companies from

realizing their industrial potential (Shatalova et al., 2013). At last, the drop in oil price makes part of the regional projects (based on hydrocarbons production) economically inefficient, and possibilities of the state budget for financing the programs of regional development are limited. Moreover, the slowdown of the Russian economy also disputes an economic feasibility of new regional projects implementation (payback of which demands economic growth). One shouldn't forget that the demographic situation in Russia after the Union of Soviet Socialist Republics dissolution was continuously worsened that creates deficiency of the population capable of development of new territories and thus compels to resort to labor import, i.e., such way of completion of population loss which may result in considerable economic and social problems.

In these conditions, it is obvious that Russia needs to use the most effective instruments of regional development in order to provide the fastest solution of the tasks in conditions of the small time horizon and limited financial resources. One of such instruments is a cluster (Vertakova and Plotnikov, 2013a; Vertakova and Plotnikov, 2013b).

2. RESEARCH METHODOLOGY

The cluster as an instrument of formation of long-term network ties (Ménard, 2004) among the enterprises and organizations located in the same region has been widely adopted in recent years. It happened due to the fact that on the one hand, the cluster promotes the accelerated development of the region in which it is located (thanks to attraction of considerable number of the enterprises which promotes an increase of economic activity, employment growth, local demand and tax revenues into the local budget), and on the other hand, allows to increase the efficiency of functioning of the participating organizations (thanks to competitive advantages of the region and integration ties among its participants based on competition and cooperation) (Porter, 1998). There has been a considerable number of publications in which the cluster was investigated as a special form of the territorial and network organization of economic activity (beginning with the fundamental work by Porter [1998]), and the practice of clusters application for regional development and increase of efficiency of participating enterprises has been analyzed (Schmitz and Nadvi, 1999; McCann et al., 2002; Hashino and Otsuko, 2013).

It isn't surprising that effectiveness of clusters as an instrument of regional development, proved by the world practice, resulted in aspiration of the Russian government to introduce them in the territory of the Russian Federation. This led to a cluster boom when regional authorities were eager to report on creation of another cluster on the territory of a federative subject.

The purpose of our research is to determine whether these numerous territorial economic formations correspond to the definition of a cluster. It will help to estimate, first, the efficiency of implementation of the state strategy of cluster construction and, secondly, the capability of such clusters (or the structures called clusters in Russia) to perform the task of the accelerated regional development.

The cluster is a special territorial and network form of organization of economic activity. It would be more exactly to claim that the cluster is a special form of the territorial organization of economic activity on the basis of the network interaction of subjects of business activity, state bodies, scientific and educational institutions and public institutes concentrated on a certain territory.

The feature of network interaction is that the structures participating in it refuse purely market regulation (on the basis of price signals), without passing thus to hierarchical administration within the integrated structure (Williamson, 1991; Ménard, 2004; Makadok and Coff, 2009). The theory of network (or hybrid) structures was created by Williamson (1991), and now there is a number of the researches describing various options of these structures, such as the outsourcing relations, franchising networks, strategic alliances and other kinds of companies and organizations integration (Grandori and Soda, 1995; Grandori, 1997; Levin and Cross, 2004; Kotliarov, 2011; Kotliarov, 2013; Grigor'ev and Plotnikov, 2014). As a rule, participants of hybrid structures are firms though there are also exceptions (for example, in case of public-private partnership [Grigor'ev and Plotnikov, 2014]).

The cluster is a network (hybrid) structure; however, it possesses the important distinctive features causing its specifics. First of all, the cornerstone of a cluster is a territorial concentration of its participants. Whereas in other types of hybrids partners can be at considerable distance from each other (for example, outsourcing contracts where performers are in China, and customers – in the USA or Western Europe), in a cluster the territorial proximity is an indispensable condition of its existence. Respectively, a soft integration of participants as a part of a cluster bears a secondary character. It arises in case of sufficient number of the enterprises among which there can be interrelations, whereas the basic prerequisite of a cluster creation (i.e., a condition for creation and successful functioning of a certain number of enterprises) is significant competitive advantages of the region. Such advantages can include large resources of the region, the developed infrastructure, the favorable legislation or large volume of demand for production of a certain industry (the availability of several advantages is preferable). The quality of resource base and the peculiarities of demand determine the key industry which will become the center of a cluster formation and which, in its turn, will specify the industry property of a cluster. Certainly, being a part of a cluster the enterprises of the key industry will be added with firms from associated and supporting industries.

Further, hybrids usually consist of business concerns. The structure of clusters, along with firms, includes various non-profit organizations and bodies of the public and municipal administration. Non-commercial structures (public institutes, educational and scientific institutions) support the development of a cluster being a source of qualified personnel and scientific development for the participating enterprises. As for governing bodies, they carry out legislative support of the cluster initiatives and are responsible for creation of a favorable legal background of the cluster activity.

Not all participants of a cluster are involved in the uniform scheme of interaction because their purposes and interests are different (in comparison with outsourcing, franchizing or strategic alliance where the mechanism of interaction is uniform for all the participants (Williamson, 1998; Ménard, 2004; Williamson, 2008; Kotliarov, 2011; Kotliarov, 2013)). Outsourcing partnership and strategic alliances occur among firms whereas higher education institutions and firms are linked by means of various interorganizational networks. Public and municipal administration bodies also are involved in the network relations in one or another form. Besides, each participant of a cluster can be a member of more than one partnership, alliance or network listed above, which intertwining with each other, create difficult interactions (regulated by different types of coordination) and form thereby a cluster basis.

This feature of a cluster, in its turn, generates transformation of approach to maximizing benefit and to selection of participants. In usual hybrid structure the actions of participants are directed on maximizing joint benefit, whereas in a cluster we say about the maximizing benefit of that partnership the member of which this specific participant of a cluster refers himself to (there can be a few partnerships, and in each situation of a choice the benefit of one of them is maximized). In other words, the participant of a cluster is also directed on collective result – but of not the whole cluster – just of some particular community in a cluster.

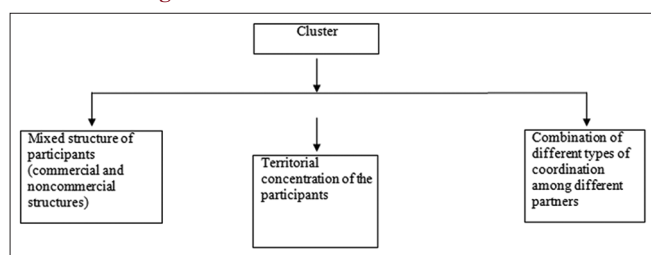
Similarly, in a cluster there is no uniform formal procedure of selection. Each partnership within a cluster develops and uses its own procedures. In principle, there can be the situation when a potential participant having failed to become a member of a partnership in a cluster, joins another partnership of the cluster, and thus enters this cluster. For this purpose it is actually enough to organize a business in the territory covered by the cluster, and the business specialization has to meet the needs of any participants of the cluster, and then sooner or later these participants will enter the relations with this business. The right to organize a business in the territory of a cluster is not limited (certainly, if the nature of business complies with the requirements of the legislation).

3. RESULTS

At last, for the same reason there is no uniform coordinating center in a cluster. Some functions of soft regulation can be performed by regional government by means of various measures of formal and informal stimulation, however in the strict sense of the word it doesn't act as the coordinating center.

The analysis of Table 1 shows that the cluster, unlike a hybrid, is not the uniform formation (based on the uniform mechanism of coordination of its participants' interaction). It is a complex structure representing, as a matter of fact, a network of hybrids, the so called network of the second level. It is the criterion of organization on the basis of network association of different networks that we take as the basic distinctive feature of a cluster, along with territorial concentration and the mixed structure of participants (Figure 1). It means that looking as a uniform formation for an external observer the cluster has no

Figure 1: Distinctive feature of a cluster



full internal unity. And this is its important advantage (as it allows its participants to choose the most preferable partners and mechanisms of interaction), but at the same time it complicates management of clusters owing to which the role of spontaneous elements in clusters activity is considerable.

We tried to analyze whether the structures of territorial development called clusters in Russia correspond to the above mentioned distinctive features of a cluster. The research of the available sources (unfortunately, mostly in the Russian language) shows that there are considerable differences between these structures and classical clusters (Table 2).

Table 2 shows that formations being developed in the territory of the Russian Federation are not clusters in the strict sense of the word as they don't possess such essential features of a cluster as cooperation and competition, a high level of development of the associated and supporting industries and the market nature of formation. These territorial formations by their nature are closer to industrial special economic zones or regions with industrial specialization.

Thus, analyzing the problems of network economy in Russia it is necessary to remember the specifics of the Russian institutional environment. First of all, the state traditionally plays an important role in the Russian economy, and not simply regulates and arranges favorable conditions for functioning of economic entities. The state also actively uses administrative levers for address impact on particular enterprises, and also has point arrangements with the separate firms. Moreover, such target influence and point arrangements are given obvious preference while forming the institutional environment favorable for the cluster construction. This factor leads to replacement of clusters with the territorial economic formations built by means of administrative levers.

Besides, the level of trust and quality of the contract relations among the participants of economic activity are rather low, especially in case of cooperation of the enterprises with the different scale of activity. The oil and gas sector in Russia can be an example. Actively using the services of foreign oilfield operators (certainly, before the imposed sanctions), the Russian oil-extracting companies established the long-term relations on

Table 1: Comparative analysis of a hybrid structure and a cluster

Criterion of comparison	Hybrid structures	Clusters
Prerequisites of formation	Territorial proximity of participants	Territorial proximity of participants
Participants	Commercial firms	Commercial and noncommercial structures, authorities
Coordination mechanism	Combination of market and hierarchical instruments which are uniform for all participants	Different types of partnership and combinative forms of market and hierarchical instruments are possible among a cluster participants
Central governing element (local government)	Usually there is a central governing element	Usually there is no central governing element. Soft coordination of a cluster is carried out in general by the regional authorities by means of legislative initiatives
Selective mechanism	There is a selective mechanism	There is no selective mechanism as such. Any enterprise conducting its activity in this region can be involved in the cluster through any of its participants
Maximizing the common benefit, but not private one	Usually there is maximizing the common benefit	Maximizing the benefit of that partnership the member of which the participant of the cluster refer himself to, but not of the whole cluster

Table 2: The comparative analysis of clusters and the Russian territorial economic structures

Criterion of comparison	Cluster	Territorial economic structures in Russia	Territorial industrial complexes in Russia
Incentive of formation	Market (the enterprises initially use competitive advantages of the region, and then build interactions to increase the efficiency of their activity)	Administrative and voluntaristic (the decision on formation of a structure is made by the federal and regional authorities)	Possessory (integration of technologically related enterprises within uniform corporate structure)
Cooperation and competition	There is cooperation and competition	Quite weak (the interaction among the enterprises within a territorial formation is weak)	There is no internal competition or cooperation among subdivisions (the uniform economic policy is carried out according to the owner's purposes)
Selective mechanism Participants	There is a selective mechanism in each partnership participating in the alliance Commercial structures, scientific and educational organizations, public institutes, authorities	There is no selective mechanism or it is performed by administration of the region Mostly commercial structures. The companies of the associated and supporting industries are poorly presented. Participation of the scientific and educational organizations isn't enough. Government bodies are poorly involved in network interactions, preferring to regulate the cluster	Selection is carried out by the owner Commercial structures, mostly within vertical integration
Uniform regulator	There is no uniform regulator. The regional authorities can softly regulate the cluster by means of measures of indirect influence	Regulative functions are carried out by authorities rather rigidly. They directly participate in management of the cluster activity	Owner
Examples	It is difficult to find a cluster in its pure form in Russia. Probably Saint Petersburg pharmaceutical cluster being in its germinal state can be given as an example	Saint Petersburg automobile cluster, the Sochi sports and recreational cluster	The petrochemical cluster in Tatarstan

the basis of hybrid model (as it occurs in the world). An important condition of such equal relations is high negotiation strength of foreign oilfield operators and a big scale of business that reduces possibilities of rendering pressure from the side of oil-extracting companies. However, the model of cooperation with the Russian oilfield operators has essentially other character. The small scale of activity of a number of oilfield service providers, the absence of significant specific assets and small negotiation force lead to their complete dependence from oil industry workers (creating "a force hybrid" with them in Oliver Williamson's terminology). Network communications between large and small business are absent, and it is a key condition of formation of clusters.

At last, the ties of business, science, education and government are at a very low level, but the involvement in the network relations of all the above-mentioned elements is an indispensable condition of clusters creation.

In these conditions the development of clusters is extremely difficult. They will be replaced with surrogates possessing a certain similarity to clusters (for example, special economic zones or complexes of close located enterprises of one industry), but not being clusters in the strict sense of the word. It is obvious that it doesn't allow using the potential of clusters as an instrument of territorial development in full.

It is very important to understand that the kinds of territorial economic formations described above can also be used for regional development. They have their own field of application, and they

can be used as addition to clusters (for example, they can act as the predecessor of a cluster), however treating them as clusters and trying to realize a cluster strategy on their basis means to make an administrative mistake.

Thus, it is possible to claim that today the considerable part of the territorial economic formations declared as clusters in the Russian Federation are not clusters. The reason is that clusters are mostly constructed by administrative influence "from above" or on the basis of possessory control over the enterprises (as a rule, technologically connected) belonging to the territorial complex, and by means horizontal ties among the participants of economic activity. It is caused by the peculiarities of the institutional environment of the Russian Federation and the necessity of the fastest formation of clusters owing to which the government does not want to have this process spontaneous, but it uses the habitual methods instead of those actually required.

4. CONCLUSIONS

Answering the questions of the research, it is possible to claim that most territorial economic formations functioning in Russia cannot be called clusters and, as a result, the strategy of cluster development is realized inefficiently.

The prospects of cluster construction in Russia are rather disputable. We believe that elimination of the existing problems requires change of the institutional environment in the Russian Federation, a key condition of which is change of the tools used

by the executive power. However now the Russian government got to some kind of time trap, i.e., transformation of the institutional environment is rather slow process, and the modern geopolitical situation requires rapid results.

As a consolatory conclusion of the research we can point out that at favorable scenario the existing territorial formations can act as proto-clusters, i.e., kernels on the basis of which full-fledged clusters will be created.

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