

CLUSTER AS THE DIRECTION OF INNOVATION POLICY OF DEVELOPMENT OF THE TERRITORIES

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Abstract. The process of globalization increases the domination of transnational corporations, which leads to tighter competition in the world markets. Michael Porter's theory reflects this process, defining a cluster as a modern form of international competition. A cluster can be examined, on the one hand, as a type of the geographical organization of modern business and, on the other hand, a phenomenon the development of which increases the country's competitiveness in the global market. Variety of clusters is generated by the terms of modern business's functioning. Conditions of a cluster's formation are related to each other through the four determinants of competitive advantage - the so-called national diamond - a system, the components of which are mutually reinforcing. The development of cluster policy is particularly important for Russia at the regional level because of the continuing existence of depressed areas. Cluster in this context can be regarded as a way of enhancing the business's and the government's social responsibility.

Keywords: globalization, development of the territories, innovation policy, cluster, social responsibility.

Jel classification: F41, F43, G38, H11, H53, H77, I38, L52, P48

1. Introduction

The need of development of the social functions of business has caused the wide spread of cluster formations nowadays. Considering the variety of such clusters it should be noted that their distribution is related to and depends directly on their geographical localization. It makes sense to consider their appearance in regions from the point of view of increased social responsibility of both business and the state, and first of all - the state.

Competition has always been the foundation and the driving force of the market economy. Along with the quantitative and qualitative, evolutionary and revolutionary changes that take place in the world economic system, a change in power relations occurs, increasing competitive advantages of one or more participants and weakening those of the others. Such transition on a global scale has always caused the forms of competition to be modified and to become more complex.

It should be emphasized that the most important process affecting the modern world socio-economic system has been and still is the process of globalization - the primary cause of the increasing dominance of transnational corporations that make up the economic essence of the process. Considering that the world's competitive advan-

tage for many years has been and still is associated with the U.S. national economy, it was no accident that the theoretical basis of the new forms of competition in the world economy has been developed by Michael Porter. His approach has become a source of the multilateral research of these problems. Before that the stress was put on enhancing the competitiveness of domestic business, which caused a cumulative effect of increasing the global position of the national economy. At the present stage of globalization, however, it is necessary to ensure the competitiveness of the country by strengthening and developing the spatial forms of organization of the national business.

If competition is examined out of the context of the four traditional market structures, namely: perfect competition, monopoly, oligopoly and monopolistic competition, there is a specific market structure introduced by M.Porter - a CLUSTER. Since the mid-1990s the global experience of developed countries has been proving the efficiency and regularity of occurrence of different types of clusters. Since the beginning of the 21st century the formation of clusters has become an important part of government policy of innovation and regional development in many regions of the world (Polishchuk 2009). This process facilitates the rapid development of technology, logistics, trans-

portation, communication, financial flows. This indicates that the achievement of competitive advantages is associated not only with innovation and education, but also with the relationship in the network structures – clusters (Litvinova 2011). Attention is drawn to the fact that the most competitive on an international scale firms operating in the same industry usually are not spontaneously present in certain countries or regions. This is explained by the fact that thanks to the competitive global market such a structure extends its influence to the immediate environment: suppliers, customers, competitors, resulting in a cluster being formed by the branches of the companies in the certain community, mutually contributing to the growth of competitiveness of each other and the community in general (Klastry 2007).

According to the theory of M. Porter (Porter 2006) "cluster or industrial group is a group of geographically neighboring interconnected companies and associated organizations operating in a particular area and characterized by common activities, and complementary to each other." Most importantly we must assume that a country's competitiveness should not only be viewed through the lens of the international competitiveness of its individual companies and clusters - accumulations of firms of different industries: the ability of these clusters to use internal resources effectively is what's fundamentally important. The competitive potential of over a hundred branches in ten countries has been researched. It turned out that the geographical clusters can vary from a city to a country as well as to a number of neighboring countries. Various types of clusters differ by depth and complexity, but in most cases include service companies, suppliers of specialized components, machinery and services, financial institutions, firms operating in communication industries. Furthermore, they include firms operating in the grassroots sectors (i.e. sales channels and consumers), manufacturers of by-products, specialized infrastructure providers, government and other organizations that provide training, education, admission information, conducting research and providing technical support, etc. The apparent advantage of this theory is the selection of a fundamentally new structural element in a set of subjects of competition. It is a development of the theory of competitive markets, which is associated with the formation of competition in the global market clusters. In the traditional world economic conditions national systems and national firms are supposed to compete. The processes of globalization, however, have led to a qualitative change in the competition and to the emergence of its new forms.

2. Features of regional cluster policy in Russia

Considering the current social and economic situation, it is necessary to mention that the greatest problems of Russia as a country are related to a large number of depressed territories, which are unattractive for investors. Occurring degradation of certain territories and the people living there demands a cardinal change of the government's attitude to the regional policy. This situation is generated both by the market inertness of these subjects and the poor conditions of development of geographical structures caused by the highly centralized command economy in the recent past. The market reform of 1965 was of major importance in this context. Its innovative paradigm was to raise the social responsibility of large industrial units due to the possibility of creation of the so-called social funds, the consequence of which was the formation of a complex of social facilities such as hospitals, kindergartens, apartment houses, health centers, dispensaries, etc. around those units. One can say that to a certain extent it was a unique form of increase in the social responsibility in the conditions of the systematic centralized production. However, the break of the hierarchical link: "industry – distribution- consumption", the difficulties that were faced by large industrial structures trying to enter the harsh conditions of market competition have led to the impossibility of maintaining the social infrastructure and the massive rejection of the objects of this kind, as well as to the transfer of such objects to the balances of regional government bodies: the difficult financial condition of which has prevented and still prevents them from making up for this social failure.

Thus, in this sense, the regional cluster policy is a form of a simultaneous activation of the government's and the business's social responsibility. It is possible to consider a cluster not simply as a tool of regional development, but also as a display of the social and economic space's self-organization. Its universality is displayed by the fact that it overcomes the limitations of an industrial policy and envelops almost the whole complex of various social and economic structures: manufacture, logistics, consumers, the scientific link, etc. (Andersson, Sorvik, Hansson 2004; Brodzicki, Szultka, Tamowicz 2004).

This raises a question: does Russia have the appropriate conditions? Activity and attempts to prove scientifically the possibility of a cluster approach to the management of socio-economic development of territorial systems of different levels and developing certain mechanisms of such a cluster approach have been carried out by the Ministry of Economic Development of the Russian Federa-

tion in 2006-2007. Specifically, some pilot projects of creating of clusters were developed, including the Nizhnekamsk petrochemical cluster, the Lower Angara cluster, the automotive cluster in the Volga region, the St. Petersburg Maritime Cluster, the Ivanovo textile cluster, the "Titanium Valley" cluster in the Sverdlovsk region, etc.

The aim of cluster policy can be defined as the improvement of the socio-economic growth and the quality of life in a region through the creation of complex interactions between the structures of a regional cluster (Romanova, Ogloblin, Lavrikova 2008; Romanova, Lavrikova, Chernavin, Makarov 2008). In this regard, irrespective of the cluster initiative ("going from above" or "going from below") there is supposed to be an increase in the state's role in providing financial resources or facilitating the possibility of obtaining them. In this case, such actions can be regarded as an activation of the social responsibility of the state. An increase of the level and the quality of life in the region is one of the criteria of the quality of the socio-economic growth.

The experience of developed countries shows that the functioning of clusters is natural and is perceived as the actions of business based on cooperation in order to enhance the total competitiveness (European Clusters Observatory; Innovative Clusters 2001; Key figures 2007 on Science, Technology and Innovation). The classical results of the cluster approach are well known: "the Silicon Valley", the timber, paper and printing cluster of Finland, the shipbuilding cluster in Norway, etc. Such examples are currently either not typical for

Russia, or there are only some private initiatives. Therefore, it makes sense to turn to the theory of artificial cluster socio-economic systems (Terezhin, Volodina 2010).

Any real support of the establishment and the operation of regional cluster structures in the conditions of rigidly differentiated standards of life in Russian regions as well as the lack of financial resources at all levels of government authorities is impossible (Bykova 2009). Nevertheless, this approach with proper justification gives real guidance to the state and business structures for achieving their goals through the activation of mutual social responsibility. Any region of the Russian Federation occupies a definite position in the territorial and industrial divisions of labor according to climatic and labor factors of production, economic structure, geographical location and available natural resources (Kutin 2003). At the same time the territorial community has its own vision of the image of the region. Thus, a regional development strategy can and should be based on a combination of opinions on the possible ways of the region's development from the points of view of the country in general and the public opinion of the community, its preferences regarding the possible future look of the region.

Implementing an innovative type of clusters demands the appropriate conditions (Rygalin 2005). The indicators of innovative development serve as an example of such conditions in the Yaroslavl region. The development of the region's innovation strategy of 2030 is not random, because it is based on certain prerequisites (Table 1).

Table 1. Indicators of innovative development of Yaroslavl region (%) (The strategy of socio-economic development of the Yaroslavl region till 2030).

The target indicator	2005	2012	2030
Share of people with the higher and post-secondary education in a total number of the work-force	50.9	55	65
Share of people with the higher education in a total number of the work-force	22.2	25	30
Relative rate of innovative products in the GRP	5.3	7	15
Relative rate of innovative products in manufactured exports	4.5	8	25
Relative rate of large and medium industrial enterprises involved in technological innovation in their total number	9	15	30

The analysis of the aforementioned statistics shows a high level of professionally schooled employees, a considerable potential of academic science, a presence of innovative production in the GRP of the region and the manufactured exports. Political stability which attracts foreign investments is also a social advantage.

The region is traditionally represented by its industrial economic sector. Therefore the regional

industrial policy is based on the development potential and on the degree of the industrial business's integration into various financial and industrial structures, which provide great opportunities for innovative development. Four groups of regional enterprises are allocated on the basis of the analysis of available industrial structure of the region. The first of them is of special significance - the enterprises which are completely integrated into the fi-

nancial and industrial groups of national and world business. These include the structures of «GAS Groups», the public limited company NGK «Slavneft», the public limited company «Sibur-Russian tire». The presence of large financial and industrial groups in a region seriously influences its economy, the formation of budgets and the level of employment. However, wrong business decisions of the large enterprises may cause some negative effects on the area: allocating the managing structure of the enterprise outside of the region decreases tax revenues, etc. Such an allocation of one of the “core” enterprises of the region - the public limited company “Autodiesel” - has demanded some complex interconnected plans of modernization of the region.

The organization of socially responsible business (Meskon, Albert, Hedouri 1998; Polishchuk 2009) at the current stage of the relationship with the regional power is carried out by means of agreements defining the mutual obligations of the parties on the development of manufacture, the social sphere, the forming of budgets, the use of regional resources, etc.

The change in the regional economy structure is related to the practical realization of a diversification policy and the formation of a business cluster type of innovative development. Thus, the list of 15 clusters is confirmed. Seven of them are operating now. The formation of new industries in the region, such as pharmaceutical industry (Limited Liability Company “R-Farm”, “Nikomel”, etc.) will bring additional benefits in both economic and social terms.

All over the country, the most troublesome heritage of the command economy is related to the existence of “monocities” which have been affected by the financial crisis the most; the level and the living conditions of people in such formations are usually considerably lower compared to other regions (Company towns... 2008). Using the criteria recommended by the Ministry of Regional Development of the Russian Federation (Methodological recommendations...) eight single-industry communities of the Yaroslavl region were picked out, including 4 towns: Tutaev (Gutman, Laskina 2005; Decree of the Government of the Yaroslavl region №347-p.), Gavrilov-Yam, Rostov, Rybinsk. About 290 thousand people, or 22% of the population, live in these territories. The organization of social and economic development of single-industry towns of the region with the possibility of using the innovative clusters only started at the end of 2009. However, by mid-May, 2010 the Ministry of Regional Development of the Russian Federation presented a comprehensive investment plan for Tutaev and Gavrilov-Yam.

The possible priorities of forming such clusters may be ranged the following way: 1) the principle of co-financing by the government and business; 2) social welfare, defined by the creation of the greatest number of jobs; 3) long-term strategy of enterprise development for sustainable provision of this territory (Instrumenty wspierania klastrow).

The purpose of the creation of cluster projects is to reduce the economic dependence of the community on the city-forming enterprise, to stabilize the employment situation, the diversification and economic conversion of the area, securing increased revenues for the local budgets and for the residents

Social responsibility of business has a structure consisting of several levels. The initial success in the development of single-industry towns in Russia is related to the restoration of the basic level, which assumes the following obligations: timely payment of taxes, rhythmic payment of workers decent wages according to the law, job creation. The achievement of this level will give real opportunities to pass on to the second level, and further – to the third level of social responsibility.

The scale and the social orientation of the project can be evaluated using its final parameters (Table 2). If the clustering program is approved and actually executed the weight of one of the central regions of Russia in the competitiveness of the territory of Russia will differ dramatically from those of the other regions.

Table 2. Social strategy indicators of the Yaroslavl region (The strategy of socio-economic development of the Yaroslavl region till 2030).

Target indicator	2005	2012	2030
The share of the population with income below a minimum living wage, %%	18.3	15	7
Ratio of people with the lowest income to the people with the highest income, times	13.4	11	8
Ratio of per capita income to a minimum living wage, times	2.7	3.0	3.5
The share of the «middle class», %%	15-20	30-40	60-70

3. Conclusions

The transition of power from some subjects of the global competition to the others has always caused the forms of competition to be modified and to become more complex. Globalization is the most important process affecting the modern world socio-economic system. At the present stage of globalization ensuring the competitiveness of a country

involves strengthening and developing of the spatial forms of organization of the national business

The experience of developed countries in the past few decades has proved that various types of clusters have been appearing rather regularly. A country's competitiveness should be examined both from the point of view of the international competitiveness of its individual companies and clusters as well as from the point of view of the ability of those clusters to use internal resources effectively. The processes of globalization have led to a qualitative change in the world competition transforming it from national businesses and economies competing to the contest of national clusters.

The presence of significant differentiation in social and economic development of regions is one of the most essential problems of modern Russia. A large number of depressed territories, which are unattractive for investors, as well as the degradation of those territories and the people living there demands a cardinal change of the government's attitude to the regional policy. The basic causes of the current situation are the break of the hierarchical link: "industry – distribution- consumption" and the troubles that were faced by large industrial structures trying to enter the harsh conditions of market competition. In this context the regional cluster policy is a form of a simultaneous activation of the government's and the business's social responsibility. A cluster, therefore, is not simply a tool of regional development, but also an example of the social and economic space's self-organization.

The functioning of clusters is natural and is perceived in developed countries as the actions of business based on cooperation in order to enhance the total competitiveness. According to the theory of artificial cluster socio-economic systems, a regional development strategy should be based on a combination of opinions on the possible ways of the region's development from the points of view of the country in general and the public opinion of the community.

The prerequisites of implementing an innovative type of clusters in the Yaroslavl region of Russia include a substantial number of well-trained professionals, a considerable potential of academic science as well as political stability. Based on the industrial structure of the region the regional enterprises are divided into four groups, the most significant of which is the group of enterprises completely integrated into the financial and industrial groups of national and world business. The presence of large financial and industrial groups in the region seriously influences its economy in both positive and negative ways depending

on what decisions have been made by the enterprises. The organization of socially responsible business is currently accomplished by signing agreements between the regional authorities and the enterprises defining the mutual obligations of the parties on the development of manufacture, the social sphere, the use of regional resources, etc.

The monocities as the problematic heritage of the Soviet economic system are currently one of the most acute regional problems. Solving the problem by creating clusters is supposed to concentrate on such issues as joined financing of the project by the state and businesses, increasing the number of jobs in the city, long-term maintaining of the achieved results by a steady development of various enterprises in order to decrease the level of the monocity's dependence on its core enterprise. Successful development a monocity depends on successful achieving of the core corporate responsibility tasks such as regular tax and salary payment as well as keeping the salaries adequate.

Actual realization of a clustering project in the Yaroslavl region will cause a drastic shift of the region's position in the system of regional competitiveness charts.

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