CLUSTER FORMATION IN THE OIL AND GAS INDUSTRY AS ONE OF THE METHODS OF ACTIVIZATION OF INNOVATIVE PROCESSES Svilovich M.A.

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Abstract: the article considers the effectiveness of cluster formation in the oil and gas industry as one of the methods of activization of innovative processes.

Keywords: cluster, cluster approach, oil and gas complex, economic crisis, Innovative Activity, The efficiency of the method, cluster members.

We can observe the following consequences of the economic crisis in Russia: reduction of the capitalization of the companies; decrease in bank deposits; decline in construction, cargo and railway transport, as well as the recession in tourism.

The Crisis has spread more on the real economy in Russia than in other countries. The impact of the external factor of the crisis has been manifested in a significant oil price decline. However, despite this fact, the results of activity of the oil and gas complex (OGC) enterprises have turned to be not loss-making, in contrast to the other major sectors of the real economy. We should take into account that the OGC makes a significant part of revenues to the state budget, and at the same time, it is represented as an important component of economic growth within the country.

However, the economic crisis has left a negative impact on the results of activity of enterprises, which form an oil-and-gas sector. The reduction of economic efficiency of use of assets has begun as well as the development of innovation in the complex has started to slow down. This is the reason for the decline in the competitiveness of enterprises and deterioration in investment activity. Everything mentioned above has an impact on suppliers (the companies, providing oil and gas companies with the necessary equipment), coal miners and metallurgists suffer the problems connected with underloading of capacities, and, as a result, they are forced to reduce workplaces.

The crisis origins and its duration, as well as its consequences characteristics is caused by the level of the state industrial development and timely capability of the authorities and companies executives to take crisis response measures.

Since the oil and gas complex is not only an important component of regional economic growth, but it is also a guiding factor in the development of other industries, therefore, the most important tasks for the state and OGC companies are building-up innovations and improvement of investment activity. In the same way this building-up provides sufficient competitiveness of OGC, what helps to endure the crisis safely

The increase in efficiency of activities and the competitiveness of OGC entities can be achieved through the development of clusters competitiveness.

In the economy we determine clusters (eng. cluster) as a territory concentrated network of independent production and/or service entities (companies, corporations, universities, banks, etc.), including their suppliers of components and specialized services, research institutions, infrastructure, universities, technology creators and other organizations, which are complementary to each other and which increase the competitive advantages both of an individual company and a certain cluster as a whole. [1]

The major characteristic of cluster policy is the special attention, paid to relationship strengthening between business entities. The structure of a cluster, or in other words the participants of a cluster, try to facilitate access to new technologies, to form common research and development work (RDW), to share risks in various forms of joint economic activity, to enter collectively the foreign markets, to apply knowledge and capital assets jointly, to improve the learning procedure due to increase of leading experts contact and to reduce operating costs in various areas due to increase in trust between the parties of a cluster.

In turn, clusters show increase in territorial competitiveness. They promote business relationship among the involved entities, with the help of research, educational, financial institutions and state and local authorities.

To some extent, the economic policy of the region is based on cluster principles. This policy includes the creation of science and technology park (or technoparks), the creation of innovative-technological centers and business-incubators. The creation of such organizations is of particular importance and it affects small businesses, due to open access to production resources

The main advantage of cluster approach is that it greatly increases the importance of territorial and social aspects and it promotes economic development. The use of effective tools in this approach assists the development of industrial regions. The use of this instruments promotes employment and increases competitiveness of production systems, growth of budget revenues and leads to other positive changes..

In case of a cluster creation the following important points should be taken into account and are necessary: first of all, this is identifying the economic conditions of cluster creation; secondly, this is identifying the interested participants. The last will allow to determine the exact list of cluster participants. Thirdly, the mechanism of cluster creation should be taken into account. Fourthly, it is necessary to evaluate how effective the cluster creation will be. And finally, fifthly, the last but not least, we should analyze its competitiveness.

One of the main methods of innovation processes intensification in market situation is formation and development of clusters of competitiveness. In turn, this is an effective method of attracting direct foreign investment. Besides, it stimulates foreign mergers. Due to the improvement of international competitiveness of enterprises the possibility to enhance the speed and quality of economic growth increases in several times. We should take into account the implementation of new equipment. In turn, the enterprises – cluster participants have the opportunity to get access to modern management techniques and opportunities to enter highly competitive international markets. Table 1 shows the advantages of forming clusters of competitiveness.

Advantages	for the region	for enterprises – cluster participants
Economic efficiency	increase in the number of taxpayers	entities productivity increase
	prerequisites of economic growth in the region	opportunity for successful entry into international markets
Social efficiency		working conditions improvement
	due to balanced regional budget effective social policy is carried out	salary raises
		number of employment increases
Environmental	burden on the environment is reduced through	environmental safety of participants
performance	the use of resource-saving technologies	increases

Table 1. Advantages of forming clusters of competitiveness

The government should comprehensively evaluate the functioning of oil and gas cluster (OGC), its role for the society as a whole. In other words, we must focus not only on the direct budgetary effect, but also on a comprehensive economic effect. Besides, the indirect effect is more important for the country's economic system than a straight budgeting.

Oil and gas projects are able to attract the key industries, development of which will be the engine for the allied industries. Soon, we may notice multiplicative effect. It's a kind of self-stimulation of economic growth.

Thus, the emergence of clusters in OGC is a necessary condition in obtaining long-term competitiveness by Russia, therefore, the emergence of economic clusters is a regional priority of the state policy development.

References

- 1. *Nikolayeva L.A.* Cluster approach to the assessment of potential growth points of innovative infrastructure of the region // Problems of modern Economics. № 3 (27). Cherepovotsin A.E. centers of economic growth based on natural clusters of competitiveness / A.E. Cherepovotsin, S.V. Fedoseev // Scientific-technical Bulletin SpbTSU 2007. № 4. P. 80–86.
- 2. The purpose and nature of the modern state–public management of education. [Electronic resource]. URL: http://www.ibl.ru/konf/ (date of access: 03.04.2016). P. 248-250.
- 3. *Rakhi V.R.* Oil and gas clusters in the Russian Federation: the conditions of their formation and development // Young scientist, 2015. № 21. P. 450-452.