



Organizational and financial features of business clusters formation

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The article describes the organizational and financial characteristics of business clusters formation in Ukraine and European countries. The author came to the conclusion that the cluster is a territorially limited system of enterprises, which provides a cycle from production to the sale of products, within which there are: enterprises of the main production, enterprises and organizations, serving the main production, financial organizations, as well as research institutions, which provide innovative development. The author also concluded that in Ukraine the clustered form of organization of the economy has not yet become sufficiently applied and disseminated. There are no perfect investments and innovation mechanisms for the formation and functioning of clusters, financial mechanisms of state regulation of their activities are ineffective. This includes, in particular, financing, direct financial assistance, subventions, subsidies, etc. The main components of the state economic policy - monetary, tax, depreciation and investment (especially in the field of foreign investment in the border regions attracting) - still do not perform functions of regional development stimulators. In general, the formation of clusters in Ukraine is slow because the proper state policy is not implemented. A separate complexity is the need to provide conditions for the effective development of small business. As it was already mentioned in this paper, the cluster association becomes the center of concentration of investment funds, which affects the formation of the investment strategy of the enterprises members of the cluster. Within the investment strategy, enterprises form investment portfolios in the direction of the sources of attraction or in the direction of investment of these funds.

Keywords: cluster; cluster theory; business cluster; cluster policy.

Introduction

The globalization of the global economy, the growth of international competition, have led to the emergence of a new industrial innovation model, in which all the members of the industry seek to create a cluster structure in order to successfully promote their products and compete in the global market. Cluster development of the country's economy in the form of territorial-sectoral or integration associations is one of the characteristic features of a modern innovation economy (Chervaniov, Neikova, 1999, p. 23-50).

For Ukraine, clustering can become one of the ways to build the economy and maintain it at the high level in the world economic relations system. Today, at the state level, only the legal base, which establish the organizational and legal forms of business associations and the existing preconditions for the formation of new production systems

(clusters) in various spheres of economic activity, was created, but there are no definitions of the concept of "cluster" taking into account the specifics of certain branches of the economy, as well as its types and specific creation measures are not established.

Ukrainian legislation on innovation does not provide full-scale of legal regulations of social relations that arise in the process of development, creation and dissemination of innovative products. A proper legal basis for the transition of the state to an innovative model of economic development was not created. National legislation in the field of innovation is not systemic, it is dominated by numerous disparate sub-legal acts. There should be systematization of existing innovation legislation, as well as its replenishment and further development.

The purpose

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of the article is to characterize the organizational and financial characteristics of the formation of business clusters.

The theoretical basis of the research

The topic of clusters and cluster policy is widespread in the works of both Western and domestic scientists. In particular, these issues are disclosed in the scientific publications and developments of leading western scholars, including such important authors as Michael Porter, the founder of the cluster concept, V. Peter de Langen Dimitrios Liridis, Vassilios Tsagkas, Maria Angel Dias, Maria Soledad Esteban, Thomas Anderson, Silvia Schvaag -Zerger, as well as domestic and Russian authors, among which are: A. Stepanov, A. Titov, L. Rybina, S. Sokolenko, Y. Kovaleva, S. Grytsenko, S. Bludova, L. Pryshchepa and others. In their papers, domestic authors especially highlighted the theoretical, methodological, legal aspects of the different cluster structures formation, the application of a cluster approach to the development of Euroregions, cross-border cooperation, as a means of implementing innovative initiatives.

Research methods

In the process of work were used general methods of scientific research (abstraction, analysis and synthesis, induction and deduction), methods of grouping and graphic method.

Results and their discussion

The deepening of the economic cooperation with the European Union objectively leads to the modernization of the domestic economy in the direction of implementation of cluster initiatives, since co-operation of enterprises within clusters is one of the effective ways to increase the competitiveness of products, enterprises and regions.

The founder of the notion of "cluster" is M. Porter. According to the author it is proposed to consider concentrated on the geographical features group of interrelated companies, specialized service providers; firms in relevant industries, as well as organizations associated with their activities in certain competing industries, but at the same time work together (Porter, 1993). Most experts define the cluster as the geographical concentration of similar, adjacent or additional enterprises with active channels for business transactions, communications and dialogue, sharing specialized infrastructure, labor markets and services, and having shared opportunities or threats.

V. Geyets under industrial cluster notion means "a group of geographically localized businesses, educational and industrial and financial companies, interconnected through the processing chain or focused on the general market or consumers of resources (network interconnection), having a form of network management, competitive at a concrete level and capable of generating an innovative component" (Geyets, 2008).

N. Mikul emphasizes in his work the following special features of cross-border clusters: "groups of independent companies and associated institutions that are

geographically concentrated in a transboundary region; justify the expediency of including transboundary regions in clustering processes; cooperate and compete; specialize in different industries, are connected with common technologies and skills and complement each other, which ultimately gives the opportunity to obtain synergistic and network effects, diffusion of knowledge and skills" (Mikula, 2008).

Thus, the cluster is a geographically limited enterprise system, which provides a cycle from production to sales, the boundaries of which include: main production enterprises and institutions serving mainly manufacturing, financial organizations, and research institutions that provide innovative development.

We will consider the features of cluster associations: industrial clusters - a group of economically interconnected but legally independent companies, different in status and united to achieve a common goal; enterprises within the cluster can not only cooperate, but also compete; cluster units should be geographically concentrated (within one, several regions of the country or in several countries); specialize in a specific industry and have a technological and intellectual support; aimed at innovative development; there is a group of companies, united by the system of product transition from production to implementation, which strengthens the competitive position of the association.

For a better understanding of clusters, as a final result, let us consider the process of their formation and development. In the graph 1 the process of formation and development of the cluster is shown.

The basis for the formation of clusters is a new way of seeing opportunities for the development of regions and territories. Under current conditions, these perspectives are inseparably linked with innovations. World experience demonstrates the efficient functioning of cluster structures in various areas and fields of activity. Their role in the modern economy is extremely important. In developed countries, clusters play a leading role in the development of the economy.

Formation of the cluster implies that the manufacturer has to involve the financial institutions, scientific organizations and local authorities in cooperation. Financial institutions provide lending to projects, attracting the necessary investments and increase the financial capacity of enterprises themselves. Scientific organizations provide training, preparation of the necessary personnel and their retraining, carry out the necessary research, develop projects and programs for further development. Local authorities provide assistance and stimulation of cluster enterprises, resolving contradictions, promoting products on new markets, providing information, marketing and consulting services (Klymova, Bondareva, 2011, p. 89). In addition, a public organization, which includes representatives of all parties involved in the cluster's activity, is created to effectively manage, coordinate and define the strategy for the development of a cluster association. However, for today, large Ukrainian enterprises do not always see economically profitable partners in small enterprises, whereas for many developed countries the pattern of successful development of small and medium enterprises is grouped around large leading companies based on production-technological, scientific-technological

and commercial links within geographically restricted areas. An example can be as in highly developed countries - Italy, Germany, Japan, and developing countries.

| | |
|--------------------------|---|
| The first stage | The formation of the cluster due to historical preconditions (existence of resources, specific knowledge, specific needs) |
| The second stage | The open policy is being created. Around formed cluster supplier firms and companies serving the manufacturing process |
| The third stage | Scientific and educational organizations are formed around the cluster |
| The fourth stage | Developing organizations that create advertising, increase the attractiveness and prestige of the industrial cluster. This leads to the fact that more firms or skilled workers are involved in a cluster association |
| The fifth stage | The structure of the transfer of information and knowledge for the coordination of economic activity is formed |
| The sixth stage | Development of investment strategy, as well as formation of investment portfolio of enterprises - participants of the cluster |
| The seventh stage | The cluster association functions, supports positions on the market until decay or transition to another cluster |

Graph 1. The scheme of formation and development of the cluster (Sokolenko, 2012, p. 5)

Typically there can be divided three approaches to the formation of clusters (Klymova, Bondareva, 2011, p. 90). The first involves the creation of an extended working group on the basis of regional administration specialists. Experts can be involved and representatives of various regional organizations, which are interested in creating a cluster and able to provide real help. The second involves cooperation between authorities and interaction with existing research organizations in the region, universities. Work with such organizations is carried out by concluding service agreements with them. The third approach is relatively new for post-Soviet countries. Its essence is to create a specialized organization - an agency of economic development. Regional authorities can act as founders, transferring in the authorized capital, for example, real estate and other property. Successful implementation of the clustering project is possible only with the active participation and interest of all participants - public authorities, representatives of the business community and non-profit organizations.

The European Union promotes the wide-spreading of clusters and their activities to develop and implement innovation through the legislative acts on competition. Modern socio-economic policy encourages the business community to develop an innovative clusters designed to optimally combine new knowledge and skills to enhance the competitiveness of regions and states. Cluster development programs are mostly confidential, as it involves the exchange

of strategic know-how and the conclusion of long-term contracts. The government's task is to promote the qualitative changes in the economy, in particular, by increasing the role of science in public life, energy conservation, optimal geographical location of economic entities, social orientation of transformations.

Functioning of the cluster's financial capital is determined by the following features: the conditions of the cluster's functioning as a business entity; its qualitative and quantitative composition; the organizational structure; the presence and level of well-established and effective interconnections; degree of variability of cluster participants; internal and external factors that determine the functioning of the integrated structure and the region as a whole. Taking into account the mentioned features, the essence and significance of financial capital, the financial capital of a cluster is a single system consisting of separate subsystems, which are the part of the financial capital of individual participants in the integrated structure, allocated by them on a voluntary, contractual basis for the realization of specific tasks and achievements. common, predetermined objectives of socio-economic development.

For successful transformation processes in a regional economy, foreign experience should be more used. For a better understanding of the development level of the world economy cluster model, consider the peculiarities of the functioning of industrial clusters in some countries (Table 1).

Table 1

World experience in the formation and development of cluster associations (by Rybina, 2009)

| Country | Historical background of formation | Features of cluster policy | The result of the implemented cluster policy |
|---------|---|--|--|
| Italy | For the first time a model of the economy was developed based on the associations of entrepreneurs, hired workers, state and banks, which gave rise to the cluster structures origin. The "Italian model" of cluster development is an active cooperation between small, medium and large businesses. According to a strategy that has been introduced the technological processes have been transferred to developing countries. | The development of the clusters was facilitated by the support of links between representatives of small business. | Specialized in industrial clusters in the manufacture of shoes, accessories, clothing, textile products. There are 7 clusters. 69 thousand enterprises, 600 thousand work places are involved. |
| Austria | To the process of the economic management are involved representatives of the Austrian Economic School. The processes of communication between research institutes and production units were initiated and actively stimulated. Transboundary clusters from Germany, Switzerland, Italy, Hungary were developed. | The development of the cluster model was influenced by foreign companies. The result of a successful cluster policy was the revival of automotive. | Specialize in industrial clusters in the manufacture of clothing, textiles, footwear, food, automotive. There are 10 clusters that unite 417 firms. Transboundary clusters have been created with Germany, Italy, Switzerland. |
| Denmark | An approach to inter-firm cooperation is offered. Investigated industrial complexes as separate economic systems on a regional scale by industry, as well as analyzed ways of transfer of knowledge and technologies. | Regional clusters were formed both in traditional branches of production and on the basis of new technologies. | Specialize in industrial clusters for the production of dairy products, fabrics, clothing, furniture, mobile communications. There are 29 clusters (40% of all firms in the country, providing 60% of exports). |
| Finland | At the end of the twentieth century, the structure of production changes in favor of high-tech industries. Created "cluster frames" - the priority sectors that represented a number of competitive directions. The transition of the economy from the support of the basic slow-growing branches to the development of high-tech. | The cluster associations include firms from different fields. New clusters are formed by interpenetration of existing ones. | There are 9 clusters that are the "cluster" framework of the economy. Information forest and telecommunication clusters provide the bulk of exports. |
| France | The process of forming and developing cluster associations is slower than in other European countries. Innovative activities are regulated centrally. Budget allocations for the development of knowledge-intensive businesses were introduced, support for R & D for industry needs was implemented. | Enterprises are concentrated around a large company | In total there are 144 clusters, 82 clusters are in the process of becoming (among them a cluster in the field of aviation in Toulouse). The leader is a perfume cluster. |

Several large-scale programs and projects for the development of cluster networks are being implemented in Europe. So, according to the project CLUNET INNO-Net it is planned to establish an intensive cooperation between clusters. Innovative cluster network development projects implemented in the EU include the creation of a modern cluster support environment by strengthening internationalization processes, innovation-type

development, as well as the transfer of advanced technologies, intellectual property rights and knowledge.

In the EU today there are more than 2 thousand clusters, which employ 38% of the total economically active population. They differ in size, date of creation, organizational structure, the share of government funding in the structure of sources of financial capital and are formed in almost all sectors from automotive to innovative technology. Thus, the annual turnover of automotive clusters in Europe

exceeds 90 billion euros, with a total staffing of about 989 thousand. However, cluster activity in each of the countries of the Western European region has certain characteristics. Germany is the leader in the number of clusters in the automotive industry. One of the automotive clusters in Germany has been operating since 2004 on the initiative of the government of five federal states. Today, the cluster includes car makers such as BMW, DaimlerChrysler, Opel, Porsche, Volkswagen, suppliers of components and equipment KUKA Systems GmbH, MiTeC Automotive AG, Schnellecke Group, Siemens VDO Automotive AG, German Industrial Bank, Fraunhofer, Technical University of Dresden, Higher School of Trade of Leipzig, other companies and institutes. The main activities of the cluster are the establishment of effective communication between cluster participants, higher educational institutions, research institutes, authorities and management, the presentation of companies on the international scene, and support for innovation activities.

Germany also has successful industrial clusters in the chemical industry and biotechnology. In 2012, the turnover of the German biotech industry amounted to about 3 billion euros, and in the field of scientific biotechnological research 31 thousand scientists worked. The cost of research and development in this field amounted to about 1.0 billion euros. All these works were carried out within the framework of government-approved target programs Bio Regio (creation of bioregions), Bio Profile (medical biotechnology), Bio Chance PLUS (innovation in biotechnology), KMU - innovative: Biotechnologie - Bio Chance (for small and medium business), GO - BIO (to create new products for world markets).

For a long time, the central authorities did not interfere in the formation and development of such structures, and the term "cluster" appeared in the context of Germany's state economic policy only in 2003. Local authorities provide relative freedom to organizations that directly develop clusters, conferring powers on them use of state subsidies. Today in Germany there are three of the best clusters in the world of seven clusters of high technology: Munich, Hamburg and Dresden (Tretiak, 2006, p. 35). The main characteristics of the clusters in Germany are: in the structure of the sources of financial capital formation, the funds of the cluster entities prevail, while the share of public funding in Western Europe is the lowest - 49%; the vast majority of clusters are spontaneously formed; German clusters are world leaders in creating high technology and innovative systems; underlying enterprises in clusters are small and medium-sized enterprises with a small staff of staff, the level of qualifications and educational infrastructure which allow the production of high-quality scientific research.

Italy's economy belongs to the most clustered ones, due to the special way of social life and the development of traditional processing industry. Italy is considered to be a classic country of small business, which has registered more than 4 million companies, of which only 2% are considered to be large. These small and medium-sized firms operate within the industrial districts, which are located mainly in the central and northeastern parts of the country and are characterized by a high degree of concentration of firms (Skoch). Under the influence of this formed an "Italian

model" of the cluster, which is a flexible and equal cooperation between small, medium and large businesses. In total in Italy there are about 260 industrial districts (districts), which unite 80 thousand enterprises with 800 thousand occupied population. Much of the "industrial districts" is located in the Northeast of Italy (Tuscany, Lazio, Marsh, Veneto, Umbria), which form 42.5% of the country's GDP (Sokolenko, 2004, p. 209).

Characteristic features of clusters in Italy are: specialization mainly in the light and processing industries; flexible and tolerant cooperation of enterprises of any scale: small, medium and large businesses, which concentrate around a specific locality; In the process of cluster functioning, the state controls aid aimed at providing export discounts, warranty coverage, support and attracting investors, and consulting.

The Finnish model of the cluster differs from the German and Italian by the fact that it is characterized by a high level of innovative component, which is supported by a powerful sector of research and development and a highly developed education system. Today, the Finnish economy is fully clustered, providing 10% of the world's exports of wood processing products and 25% of paper, despite the limited natural resources (0.5% of the world's forest resources). In the telecommunications market, it accounts for 30% of world exports of mobile communications equipment and 40% of mobile telephones (Kindzersky, 2007, p. 294). One of Finland's most famous clusters is telecommunication and information, which was created as an alternative to the forest cluster, and today it employs 1.4 times more people than in the forest. The expected pace of development of the association by 2015 is 8.1% per year, which is more than 2.5 times the expected rate of economic development in general (3.2%). The leader is Nokia, located in Oulu, with 100,000 residents of which 6,000 work in this company (Tretiak, 2006, p. 36). The Finnish model is most suitable for small-sized countries characterized by compact placement and limited natural resources.

The main features of the Finnish model of the cluster are: the share of public funds is up to 90% in the structure of financial capital formation sources; a high level of the system of connected institutes and branches development, which leads to the integration into clusters of enterprises of different industries; development of production with high profitability and active use of innovative developments, especially in sectors which are acutely lacking in natural resources; internationalization of business and innovation; new clusters are formed through mergers and interpenetration of existing ones.

So, clusters in the Western European region were formed and developed under the influence of small national markets, the limited national natural resources and a certain one-sidedness of the industrial branches of industry. These features are quite clearly traced in the formation of clusters in all European countries, but each has its own experience of their becoming. Territorial-industrial form of cooperation in many countries has developed historically, and due to the active actions of the authorities and the growth of competition, the processes of cluster formation intensified.

One of the main factors determining the success of the cluster's functioning in the region is a strong legislative and governmental support at the regional, national and

European levels, as announced in the following program documents: the Lisbon Strategy for Development (2000), the Cluster Manifesto of Europe (2007) and the European cluster memorandum (2008) (Clusters and Innovative Development of Ukraine). Equally important role in activating the formation of clusters is played by the system of the financial capital attraction at the state level. The conducted studies indicate that the main sources of financial capital formation of such integrated structures are state funds (grants, loans, free loans, tax incentives, subsidies for the creation of new products) - especially associations working in science-intensive industries, funds of various innovations - investment funds and targeted programs that promote cluster initiatives and the implementation of clusters, as well as the funds of venture companies.

The venture capital is considered by foreign scientists as an effective investment tool to be used to promote high-tech entrepreneurship and cluster initiatives. It is a more practical mechanism for investments than debt financing, because venture capitalists remain interested in the company's success and, as a rule, are actively involved in its further development and growth. With the participation of the European Venture Capital Association, the European Association of Exchange Dealers (EASD) - an association of venture capitalists, stockbrokers, investment banks and other investment institutions - was set up to create mechanisms for supporting economic development and innovation in Europe (Vnukova, 2011, p. 30).

Conclusions

Consequently, in Ukraine cluster form of organization of the economy has not yet become sufficiently applied and widespread. There are no perfect investment-innovation mechanisms for the formation and functioning of clusters, financial mechanisms of state regulation of their activities are ineffective. This includes, in particular, targeted financing, direct financial assistance, subventions, subsidies, etc. The main components of the state economic policy - monetary, tax, depreciation, and investment (especially in the field of attracting foreign investment in the border regions) - still do not perform as functions of stimulation of the regional development.

In general, the formation of clusters in Ukraine is slow, as proper state policy is not implemented. A separate

complexity is the strong need to provide conditions for the effective development of small business. As already mentioned in this paper, the cluster association becomes the center of the investment funds concentration, which affects the formation of the investment strategy of the enterprises-members of the cluster. Within the investment strategy, enterprises form investment portfolios in the direction of the sources of attraction or in the direction of these funds investment.

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