

# FORMATION OF A SYSTEM OF INNOVATIVE ENTREPRENEURSHIP IN THE PHARMACEUTICAL INDUSTRY

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## ABSTRACT

*Aim of the study: The formation of cluster formations in the economy has been attracting considerable attention of many scientists for a long time. Nevertheless, the phenomenon of clustering itself generates many scientific questions and discussions related to the versatility of the spheres of its origin and methods of managing cluster formations. Therefore, the research task in this issue is to clarify the main essential features of the concept of "cluster", to justify its content and forms of clustering of the economy.*

*Methodology: Among the numerous works prepared and published by leading experts and scientists of these institutions, works on industrial policy, innovation and industrial development, innovation implementation, creation of special economic zones, introduction and development of industrial parks in the regions, institutional support for innovative development, clustering of the country's industry and the creation of industrial clusters in many regions of the country.*

*Conclusion: For the first time, the doctrinal scientific justification of the content of clusters and the features of their formation was carried out by porter M. he defines a cluster as geographically localized organizations that complement each other at the industry level, which ensures the achievement of competitive advantages.*

**Keywords:** Entrepreneurship, New Types of Geodetic Equipment, Automated Information System of the State Real Estate Cadastre, Materials For Cadastral Registration and Registration of Rights to Real Estate Objects, Practical Significance of Cadastral Activity for the World Community.

## INTRODUCTION

Such organizations, in his opinion, may include related companies, suppliers of equipment and components, research institutes, higher education institutions, and the like. He first discovered the relationship between the competitiveness of enterprises and their economic environment.

These characteristics determine to some extent the nature of the formation and functioning of economic clusters (Belitskaya 18). However, it is worth noting that in modern conditions, the features of clusters that were defined by porter M. have undergone certain changes. In particular, the level of interaction between cluster participants may go beyond a certain region (that is, it may not occur in the immediate geographical proximity of the participants). This is typical to a large extent for the service sector (for example, the formation of tourist complexes).

Also, a fairly common phenomenon in the development of modern cluster formations is the formation of vertically integrated structures, which may include several business entities that carry out the same type of activity and have the same economic status.

However, it is worth noting that porter M. was not the first researcher who dealt with the problems of cluster formation. Back in the early twenty-FIRST century, the famous economist Marshal A. conducted a study of the relationship between the profit received by enterprises and the level of their localization within a certain territory. He considered aggregates of enterprises, which he proposed to, call "*Agglomerations*". Enterprises that were part of agglomerations showed significantly higher results of their activities, compared to ordinary individual firms. The researcher explained this situation by the action of the so-called scale effect, which was first introduced into scientific circulation (Dolgikh, 2018). Already at that time, the author was approaching the understanding of fixed costs and their minimization in the process of cooperation between enterprises. He paid special attention to transport costs, on the example of which he justified the economic effect of the formation of agglomeration associations.

However, it is worth noting that firstly, transport costs are not the only type of expenses that fall under the scope of the scale effect, and secondly, the justification of the prerequisites for creating cluster structures requires a detailed mathematical analysis of models for generating economic benefits for enterprises in the process of their interaction within the cluster (Philippines, 2018).

## METHODOLOGY

Therefore, the agglomeration model of Marshal A. was developed in the works of J. Schumpeter., which, in contrast to the purely economic approach to determining income from the functioning of clusters, considered the factor of technological changes in the development of production (Quarter, 2003). The scientist actively investigated innovative processes and found a relationship between their rates and the level of cooperation between enterprises. Schumpeter I. believed that innovation is the main stimulating factor of economic development. At the same time, the increase in the level of concentration of enterprises of a certain specialization within one industry contributed to an increase in the technological level of the organization of production processes (Quliyev, 2001).

We consider it appropriate to give a more detailed explanation of the approaches of the above-mentioned economic scientists. The fact is that the process of technological interaction is carried out by building a system of communications between individual enterprises (Rutashobya, 1999). In the case of reducing geographical distances between economic entities, the logistics chain is also significantly reduced-time and resources are spent in the process of exchanging material (raw materials, semi-finished products, energy carriers) and non-material resources (technologies, information, experience of the organization) between enterprises. In the process of cooperation and division of labor, on the one hand, there is a reduction of the processing chain and accelerate the production and increase the possibilities for combining and re-engineering of work processes that leads to innovation (Rylatt, 2018).

An important contribution to the development of the theory of cluster formations made the French scientists I.D. Trenado and Sausalito. In their understanding of the cluster, they used the concept of "*Spinners*", which they understood as associations of manufacturers of various related industries (Salgaller, 2010). The main reason for the emergence of spinners, scientists considered scientific and technical progress, which resulted in the possibility of implementing

competitive advantages in the process of creating associations of small and medium-sized enterprises in related sectors of the economy.

A logical addition to the above approach is the interpretation of clusters from the position of British scientists Nelson G. and Winter S. In their opinion, the concept of a cluster is purely regional in nature (Scherdin, 2011). They define it as an industrial Association in which the enterprises participating in the cluster are located in geographical proximity to each other. They associate the emergence of cluster formations with cooperation and specialization of production links (Schwindt, 1995).

Based on the above, it can be noted that at the end of the twentieth century, the geographical (regional) criterion prevailed in the formulation of the concept of "*Cluster*". Combining enterprises into industrial clusters was possible only if they were geographically close (Sexton, 1986). However, in the modern post-industrial era, in our opinion, the emphasis in understanding the content of cluster structures is shifting towards establishing interregional and even cross-border cooperation. The process of globalization changes the regional framework of economic interaction and weakens the influence of geographical barriers (Sharma, 2020).

## RESULTS AND DISCUSSION

Baum George, and Feldman, Acharanson investigated the interdependence between the performance indicators of enterprises and their geographical location relative to each other. They noted that clusters are a special formation in which the performance of a group of enterprises exceeds the performance of individual firms. According to leading economists, the main factors and signs of achieving the highest performance of enterprises that are part of clusters, compared to others, are their geographical proximity and innovative direction of development (Shimasaki, 2014). At the same time, improving the performance of cluster associations helps to increase employment and performance of other enterprises in a particular region.

It is worth noting that this approach to the causes of cluster formation is different from the approaches of other scientists, since it focuses not only on internal incentives for cluster development, but also on the influence of the external environment. In other words, a cluster can be formed based, for example, on the state policy for the development of a particular region (Singh, 2004). The state can use certain mechanisms to stimulate the development of clusters in the region through various tools: preferential tax treatment, providing economic preferences, forming state orders, and so on.

In contrast to the above, Sokolenko S. defines a cluster as a production and commercial network of independent enterprises, such as manufacturing enterprises, higher education institutions, scientific and research institutions, authorities and organizations of infrastructure enterprises, consumers. The scientist also identifies the concept of "industrial cluster" and "*Regional Industrial Cluster*".

Mamonova V., Kuts Yu & Makarenko A. considered the issues of forming clusters in the economy in the form of vertically integrated structures. Scientists defined a cluster as a separate geographically defined concentration of production structures of suppliers and sales enterprises, as well as a wide range of service enterprises.

At the same time, the list of clusters is not limited only to individual industries, but also provides for the extension to the activities of individual associations of enterprises within the same industry. These scientists have implemented a grouping of cluster theories, according to which they are divided into such groups:

1. The traditional regional approach to urban development, which is based on the consideration of the formation of clusters due to the positive economic effect of growth in production;
2. The internalist approach considers the reasons for the formation of clusters as the consequences of internal positive effects of their functioning on the territory of mystaglomerations;

The main reasons for the formation of clusters in the economy are: increased availability of investment, new technologies, regional and local markets. This representation of the authors significantly expands the range of possible prerequisites for creating cluster formations, which makes it possible to identify a number of characteristics and conduct a comprehensive analysis of various areas of their activities.

Kizim A. carried out research on the cluster approach to the formation of inter-industry cooperation within a single region. It defines clusters as a complex of integrated enterprises, government agencies, research centers, and educational institutions that are interconnected and complement each other. In the process of forming cluster structures, the author relies on the development of horizontal links between individual elements of the cluster. Considering the main reasons for the formation of clusters, the scientist, like M. Porter, identifies the factor of increasing competitive advantages for each enterprise (organization) that become participants in such education.

In our opinion, the focus on competitive advantages was carried out in earlier research studies on clustering the economy of regions. Now, achieving competitive advantages is not an exclusive prerequisite for the formation of clusters, and the initiators (participants) of cluster formations can be guided not only by economic, but also by political, socio-cultural and other motives (Soyibo, 2013).

In addition to the above approaches, clusters are defined as enterprises that are United according to the geographic principle, and the purpose of this Association is to obtain a synergistic effect and realize the interests of participants in the production and sale of their own products. At the heart of cluster formation, the scientist sees the principles of deepening the division of labor between enterprises at the level of a certain region, ensuring specialization and developing cooperative ties between them. It identifies three main prerequisites for clustering economics.

Clusters are defined as a territorial combination of production and marketing structures for increasing the dynamics of production, investment and other activities, focusing on the formation of a synergistic effect from the organization of interaction between the cluster participants, the main factors of which are increased productivity and technological efficiency as a result of increased flexibility of production processes, division of labor and cooperative interaction.

An important component of understanding the process of clustering the economy in modern conditions is to determine the directions of innovative development of regions. In particular, it is important to note the scientific views of N. Voynarenko, A. Zobova, and V. Volkov, who consider the cluster as an element of an innovation system that consists of a certain set of enterprises in related industries. Interaction between these enterprises-participants of the cluster, leads to a synergistic effect by facilitating access to capital, since the concentration of enterprises and organizations participating in the cluster formation, creates a favorable climate for the emergence of total internal resources and allows you to attract additional investment, technological capital in the form of venture financing, direct investment (Spring, 1998).

According to Nekrasov L., Oleynik A. modern innovative technological clusters are a complex system of interconnected enterprises with many stages of production. By the advantages

of cluster formations, it determines the concentration of attention on the processes of interaction between enterprises and structures within the cluster that ensure their interaction.

At the same time, the relationships between the cluster members are formed on the basis of cooperation, openness, trust and long-term contractual relations. The organization of relationships between cluster members creates certain unique relationships that give significant advantages to all cluster members.

It should be noted that consideration of the interests of the cluster participants, who are United by a common technological cycle, is provided on the basis of personal relationships that provide for common goals and territorial proximity of production and infrastructure, support and service enterprises, and research institutions. Creating a system of stable connections between the participants of the cluster Association contributes to the generation of new knowledge and technologies and accelerates the transformation of innovations into competitive results.

## CONCLUSION

The authors emphasize that interaction between cluster participants is a prerequisite for effective combination of resources and turning know-how and inventions into products and services.

In addition to the above, Martynyak I. notes that the presence of clusters has a decisive and significant impact on the productive development of the economy of a certain region. The growth of cluster capacity provides an increase in business activity in regions and industries. It is noted that regions that are home to developed effective clusters have significantly greater and effective economic development, as well as budget revenues and socio-cultural, educational development, social protection of the population, and greater infrastructure development.

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