SPECIFIC SIGNS OF A SYNERGISTIC EFFECT IN AN INNOVATION CLUSTER

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In contemporary conditions, the competitive advantages of the national economy are decisively determined by its ability to accelerate the creation and implementation of the latest technics, technology in all spheres of business. In our opinion, the most effective form of integration of enterprises and organizations performing various functions in a common technological process, resulting in a knowledge-intensive product, is an innovative cluster. In general, the innovation cluster is an organizational and economic form of implementation of the innovation system in the economy of any level and it serves as a catalyst for innovation in each specific sector of economy and region [1].

It is to be noted that the main problems faced by enterprises (irrespective of their size and ownership) in the process of their autonomous (independent) innovation activity disappear when merging economic entities into the innovation cluster due to the emergence of a synergistic effect, which is characterized by certain specific features. It is proposed to consider the specific features of the synergistic effect in the innovation cluster in more detail.

In the cluster which exist for a long period of time, the process of knowledge flow occurs through suppliers, consumers, consulting firms, former employees, as well as it is absorbed by employees during training and transmitted through personal communication, through social networks, etc. The level of knowledge acquired in this process may be an indicator of whether an enterprise is capable of achieving a knowledge-based advantage, that is, of whether knowledge leads to competitive advantage [2].

The synergistic effect in the innovation cluster stipulates changes in the size of cash accretion and outflows. The increase in cash flow is associated with an increase in aggregate demand for products in the context of a cluster, with a complication of purchasing advantages that require the improvement of goods and services. Reduced cash outflows are associated with increased productivity of its participants, costs cutting for production and sales of products, reduced specificity and increased availability of various resources (primarily human resources), increased accessibility and reduced cost of specialized information, reduced business risk and reduced costs of business security and, overall, by increasing of internal competition.

The effect of sharing a cluster infrastructure is to reduce the individual costs of forming a cluster for each individual participant, and to reduce the cost of its maintenance and use. At the same time, we are talking about objects of transport, energy, engineering, housing and social infrastructure of cluster development. Sharing of a cluster of logistic infrastructure, energy systems, information networks, marketing developments by enterprises allows to obtain services of higher quality at a lower cost.

The effect of reducing transaction costs in the innovation cluster is due to knowledge flow. Cluster enterprises have access to specific resources, which the
cluster possesses in total and which are transferred from one participant to another, forming a common knowledge base of the cluster and reducing transaction costs [3].

The effect of innovation emergence growth is determined by the high speed of exchange of information on needs and technologies between the cluster participants, enterprises of related industries, research centers, design organizations and small businesses, which usually act in the cluster as generators of ideas and primary testers of new technologies.

The effect of attracting additional investment is determined by the mere fact of the cluster's existence as a coherent economic system. The activity of the cluster attracts the attention of its members from financial structures, allows to receive assistance in building credit reputation, in the distribution of enterprises advertising within the brand of the cluster, as well as contributes to the additional resources proceeds to the region which the innovation cluster operates in.

It should be noted that in practice, defining a synergistic effect in an innovation cluster is not always possible because of the difficulty in obtaining the source information. In this regard, the urgent task is to develop a methodology for evaluating the synergistic effect of integration processes, which will take into account various forms of synergy. Thus, a synergistic effect implies an increase in the effectiveness of a collaborative activity by focusing on a long-term base on one project of interests and the resource potential of several organizations strategically allied to one another [4]. In other words, the sum of the effects obtained from each participant in the innovation cluster separately is less than the total sum of the results obtained from the joint actions of the mentioned participants in the cluster. Conversely, the sum of the results obtained from joint actions in the cluster is greater than the sum of the results obtained from each participant of the innovation cluster individually.

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