

The Significance of Innovative Integration Relations in Regional Development Compared to Globalization Processes¹

INTRODUCTION

The ongoing globalization processes affect the place of regions in the structure of the national economy, both from economic and social points of view. Some of the regions, using increasingly easier movement of goods and human capital, considerably accelerate the pace of their development, while other regions remain in the margin of development processes. It is therefore essential to seek the optimal balance between exogenous and endogenous factors determining regional development [Czudec, 2009, pp. 13–14].

The transformations in the economic, social, political and cultural spheres generate new mechanisms of a specific order which is commonly identified with the globalization process. One of its elements is the phenomenon of regional integration which can largely determine the shape of world order and will certainly affect the course of development processes of many countries and regions. Transformations taking place in the economic sphere are characterized by unique dynamics. Fast intense changes are visible in most national economies and regions, and their consequence is the shape of the modern global economy [Gabryś, 2006, p. 11].

Integration relations occurring in agribusiness determine the formation of market conditions for activities of farms, businesses and other economic entities. Properly functioning, as well as emerging integration structures found in the economy constitute one of the essential elements of its dynamic expansion, especially in the era of globalization. Among integration relations may be mentioned, among other things, both the processes occurring between agricultural producers (horizontal integration), agriculture and the food industry (vertical integration), as well as innovative forms of integration relations, exemplified by agro-industrial clusters.

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The primary objective of this paper is to present theoretical foundations, principles of operation and the benefits of efficiently functioning innovative integration relations which are the cluster structures. This study attempts to assess the impact of the above mentioned forms of relations on regional and local development, as well as to indicate the conditions for development of these relations in the face of ongoing globalization processes. The work is of a theoretical and cognitive character and the further research currently conducted will allow the presentation of its detailed results in the future.

THE ESSENCE OF INNOVATIVE INTEGRATION RELATIONS

The concept of clusters represents a new approach to the issues related the competitiveness of enterprises². The progress made in recent decades in understanding of the problems of competitiveness of enterprises, both from a theoretical perspective, as well as from the perspective of economic practice, allowed development of system solutions tailored to the specificity of modern economy. The concept that has gained a particular importance in this area in recent years is a cluster and cluster-based development policy or cluster-oriented policy whose essential elements or even complete solutions were introduced by most OECD countries [Brodzicki, Szultka, 2002].

Clusters, also called industrial circles or groups, are a specific form of spatial organization of high technology sectors. Formation of a specific institutional and organizational tissue in the form of cluster determines in the contemporary knowledge-based economy the achievement and maintenance of competitive advantage at the international, global, local and regional levels. In the literature, clusters are considered the most mature forms of organization of production in terms of ability to sustain development [Oleksiuk, 2009, p. 79].

Putting particular emphasis on the dynamics of relations and integration of the entire group as a system, a cluster can be characterized as a centre of large companies located in considerable spatial proximity, connected with vertical and horizontal relations, related to local business support infrastructure, sharing a common vision for economic development, cooperating and competing with each other on a particular market [Cooke, 2001, p. 24].

Clusters from the subject point of view, as T. Markowski says, are a specific form of spatial organization of industrial and service sectors regarded as the most mature form of organization of production in terms of ability to sustain development [Markowski, 1999]. Their special feature is the ability to generate and maintain a competitive advantage [Porter, 1990; Meyer-Stamer, 1999]. M.J. Enright basing on a detailed analysis of 160 clusters around the world showed

² The word "cluster" was first used and defined in 1990 by M.E. Porter [Porter, 2011].

that nearly 70% of them have a strong or very strong competitive position, while about 60% of the analyzed clusters are characterized by high innovation [Enright, 2001].

Innovation clusters are systems forming not only a network of internal relations within the regional innovation system, but they are also organizations open to international cooperation, since global openness of clusters is the deciding factor of their success. They do not necessarily have to operate in industries of high technology; companies from industries of average and even low technology can also be innovative through process, organizational or marketing innovations. Their innovation is strengthened by such aspects as: design, local recipes and technologies (in the case of agri-food sector), history and culture and local social resources [*Klustry w agrobiznesie...*, 2008, s. 15].

Cluster structures due to the geographical proximity of many so-called key players stimulate and support innovation of economic entities. Moreover, a developing cluster is characterized by dynamic growth in the number of companies, which allows the creation of new, often valuable jobs. At the same time it should be emphasized that the functioning of the innovation cluster by external effects, such as technological expansion process, impacts on other branches of local or regional economy, leading to an increase in its international competitive position [Oleksiuk, 2009, p. 82].

CLASSIFICATION AND ADVANTAGES OF FUNCTIONING OF CLUSTER STRUCTURES

Pointing to the specificity of the entity which is a cluster and its individual characteristics arising from different economic, geographical or social conditions, it is impossible to create a proper classification of clusters. There are different types of classification of cluster structures made on the basis of a few, not always separable, criteria. In the literature the most frequently considered criteria for division of clusters [Mertl, Skowroński, 2006, p. 192] should include:

- *territorial range of the cluster* – clusters of regional, local, national and international ranges;
- *significance of technology* – owing to the level of technological advancement in the industry in which companies in the cluster specialize, we can distinguish clusters of high, medium or low technologies;
- *competitive position* – clusters that are market leaders and clusters with average or weak competitive position;
- *stage of development* – this criterion allows singling out clusters depending on the phase of their development, particular stages of functioning of the cluster in the market coincide with the life cycle of the product in the market;

- *ability to create jobs* – clusters of increasing, stable or decreasing levels of employment;
- *number of horizontally related sectors* – division into narrow or broad clusters;
- *number of stages in the production chain* – deep clusters which typically include all stages of production process and shallow clusters covering one or several stages.

The creation of cluster structures is underlain by historical conditioning, i.e. the traditions resulting from the existence of a particular type of activity in a given area, access to natural resources, easy access to a large market and to a scientific-research base [Szultka, 2004, p. 10–11]. This allows the formation of centres of companies of specific industries, constituting the beginning of cluster structures, concentrated in a given area [Skawińska, 2004, p. 64]. The uniqueness of the competitive advantage of clusters results from proper-for-each-territory nature of companies, demand, production factors, policies of the state and related and supporting sectors [J. Gancarczyk, M. Gancarczyk, 2002]. The analysis of these factors is determined by benefits classified by Porter as follows [Olejniczak, 2003, pp. 55–77]:

- productivity growth of companies or sectors belonging to the cluster, mainly by the availability of well qualified staff, access to reliable information, cooperation with scientific institutions and the complementarity of the scope of activities of companies affiliated in the cluster;
- increase of the capacity for innovation by analyzing their own innovative achievements, mutual competitive rivalry and the search for new technological solutions [Skowron, 2008, p. 141];
- encouraging to the creation of new businesses through lower barriers for entry into the market and to cooperation with companies in related sectors.

Practical tests conducted under the project Innobarometer and the research conducted by various European committees for the cluster development in all EU countries, indicate the specific indicators of positive effects of functioning in a cluster [Knop, (<http>)]:

- companies operating in a cluster are more innovative than those that do not operate in it,
- economic growth of companies is connected with the degree of cluster development,
- organizations in the cluster draw attention to the benefits of flow of knowledge and growth of skills,
- 85% of companies operating in the cluster believe that the initiative has improved their competitiveness,
- companies in clusters register more trademarks (29% vs. 14%) and obtain more patents (29% vs. 12%),

- companies in clusters outsource more research (41% vs. 20%) and reduce their own one (44% vs. 53%),
- companies in the cluster expect improvement of support services.

Within the modern theory of agglomeration there are mentioned the internal economies of scale as an explaining factor why companies focus their activity in specific locations. At the same time there are indicated so-called external economies of scale whose characteristic is that they are an industry-specific resource that can be created when companies in the same industry will locate their activity in the same region. The effect of the presence of external economies of scale are reductions in unit costs in every company in the industry when there grows the number of companies in the same industry in the region [Gorynia, Jankowska, 2008, p. 31].

It should be noted that despite ongoing globalization process the location plays a very important role, especially for local economies. Due to the uniqueness of situation the location is one of the sources of competitiveness of enterprises [*Innowacyjność*, 2006, p. 78]. Relations should serve the realization of common objectives, for example, meeting the market demand. However, the proximity and undertaking complementary initiatives are not sufficient. To produce positive effects of the existence of a cluster there must be some level of active interactions between the entities functioning in its framework. Moreover, for the interactions to have a significant impact on the operation of enterprises there must be a sufficient number of participants (the corresponding critical mass) [Mikołajczyk et al., 2009, p. 17].

IMPACT OF INDUSTRIAL CENTRES ON THE REGION DEVELOPMENT

The presence and activity of industrial centres bring three fundamental positive changes for the region in which the cluster is located [*Klustry...*, (http)]:

1. acceleration of the pace of economic growth – energetic clusters, becoming the engine of growth, contribute to the local GDP, the wealth of society, stimulate economic situation;
2. improvement of conditions for development of companies and enterprise – cluster companies have better access to knowledge and innovation, other companies providing specialized services, suppliers and all business facilities (such as consultancy, aid, law institutions), and even to a better, now consisting of selected experts, labour market;
3. increase of innovation – clusters favour innovation since they have the possibility of close and constant cooperation with R & D sector; also important is the intra-cluster competition which forces levelling up and mobilizes weaker participants of the relation to raise their level.

The role of clusters in supporting regional development and enhancing innovation is indisputable. Consequently, clusters are the foundations of the next

European Commission initiative, namely shaping “Regions of Knowledge”, which is a continuation of the process of building regional innovation strategies. The idea of regions of knowledge is based on the concept of “learning regions”. It assumes that the factors of competitiveness of companies that allow them to operate in global markets (innovation, flexibility, network strategies, enterprise) are formed in conditions of local development [Matusiak, 2005]. However, to make it possible for entrepreneurs to benefit from resources created in the region and to have a provided and effective quick access to knowledge and innovation, the functioning of the research cluster is essential³. Regardless of the method of initiation of cluster relations and the type of functioning cluster, for development of region innovation important is the cooperation of all entities of the innovation scene and relevant defining of directions of forming the regional innovation system.

CONCLUSION

Showing the potential benefits that may arise from effectively functioning cluster structures, it should be noted that the positive results obtained are important for the local, regional and finally national economy. An effectively functioning cluster structure significantly increases the growth of productivity of local companies due to the access to relatively inexpensive specialized factors of production and through a variety of production inputs. Moreover, geographical proximity of entities cooperating in a cluster system is the driving force of their innovation and competitiveness.

Clusters play a particularly important role in the context of increasing innovation across the whole economy. Moreover, thanks to their often considerable clout, they are able to influence the shape of economic law, the formal-institutional framework of functioning of economy. Cluster structures can be a stimulant of many positive changes, especially towards the development of advanced integration processes as well as of an effective regional and trans-regional development, and, finally, of an increase of the competitiveness at global level.

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³ The research cluster is understood as a cluster of cooperating research entities, enterprises, regional authorities and centers promoting enterprise and innovation, acting for a particular sector of science, technology or economy [Bąkowski, Siemaszko, Snarska-Świdorska, 2007].

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Summary

The primary objective of this paper is to present theoretical foundations, principles of operation and the benefits resulting from efficiently functioning innovative integration relations which are cluster structures. This study attempts to assess the impact of above-mentioned forms of relations on regional and local development, as well as to indicate the conditions for development of these relations in the face of ongoing globalization processes.

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Znaczenie innowacyjnych powiązań integracyjnych w rozwoju regionalnym na tle procesów globalizacji

Streszczenie

Podstawowym celem niniejszego opracowania jest prezentacja teoretycznych podstaw, zasad funkcjonowania oraz korzyści płynących z efektywnie funkcjonujących innowacyjnych powiązań integracyjnych, jakimi są struktury klastrów. W opracowaniu podjęto próbę oceny wpływu ww. form powiązań na rozwój regionalny i lokalny, jak też wskazania uwarunkowań rozwoju tych związków w obliczu zachodzących procesów globalizacji.

Klustry odgrywają szczególnie ważną rolę w kontekście zwiększania innowacyjności całej gospodarki. Ponadto dzięki swojej często znaczącej sile przebijają się w stanie oddziaływać na kształt prawa gospodarczego, instytucjonalno-formalne ramy funkcjonowania gospodarki. Struktury klastrów mogą być stymulantem wielu korzystnych zmian, zwłaszcza w kierunku rozwoju zaawansowanych procesów integracyjnych, jak również efektywnego rozwoju regionalnego, ponadregionalnego czy wreszcie wzrostu konkurencyjności na poziomie globalnym.