
Cluster Initiatives as a Competitiveness Factor of Modern Enterprises

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Abstract:

The authors study the problem of provision of competitiveness of enterprises in the market economy, consider the existing methodologies of evaluation of competitiveness of enterprises, determine the factors of competitiveness, and offer hypothesis, according to which cluster initiatives facilitate the improvement of values of competitiveness factors and the increase of general competitiveness of enterprise. The authors check their hypothesis, analyzing the cluster's influence on the formation of competitive advantages of its enterprises and on their competitiveness as a whole. As a result, the authors come to a conclusion that implementation of cluster initiatives facilitates the improvement of main factors of competitiveness of cluster enterprises, as it improves marketing, management, informational and technological component, and human capital and increase market share and market power of enterprises within cluster. As a result of the research the offered hypothesis is proved and it is determined that cluster initiatives facilitate the improvement of values of competitiveness factors and the increase of general competitiveness of enterprise. That's why cluster initiatives are a competitiveness factor of modern enterprises.

Key Words: *Cluster Initiatives, Enterprises Competitiveness, Enterprise*

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1. Introduction

In modern market economy, the most important problem is provision of competitiveness of enterprises. This problem could be solved by formation of cluster system. Theoretical and practical works, devoted to development of competitiveness, are dominated by studies of the processes which take place within enterprise. The role of location is not taken into account in competition and competitiveness. There is a tendency for diminishing the role of location in these issues.

Some researchers explain the concentration of enterprises in view of agglomeration economy (Carneiro *et al.*, 2015), which are usually viewed as ones emerging at the level of a sphere or in diversified economy of a city. Those who explain the economy of agglomerations put emphasis on minimization of expenses due to similarity of production factors or similarity of markets (Geldes *et al.*, 2015). However, such explanations are devalued by globalization of markets, technologies, and sources of supply, as well as by increased mobility and reduction of transport and communicational expenses. At present, the character of agglomerations' economy has changed a lot: it becomes more important at the level of clusters and not only within narrowly determined spheres.

Globalization allows enterprises to receive capital, goods, and technologies from different regions and locate production where it is more effective in terms of expenses. It is considered that governments lose their influence on competition, as compared to powers which work at the global scale. Though this vision is very popular, it does not correspond to the real situation in the processes of competition. During study of the issue of location's influence on competitive struggle, comparatively small attention is paid to the fact HOW enterprises conduct the struggle. Competitive struggle was seen as static one, based on minimization of expenses in comparatively close spheres (Mihajlović, 2014). In this case, the decisive role belongs to comparative advantage in factors of production and economy which is predetermined by the growth of production scales. The purpose of this article is the analysis of cluster activities' influence on creation of competitive advantages of its enterprises and on their competitiveness.

2. Methodological Aspects of Evaluation of Enterprise's Competitiveness

There are a lot of various methods for evaluation of enterprise's competitiveness. At present, it is possible to determine the following main groups of method for evaluation of enterprises' competitiveness. First group is comprises of product methods, which are based on the idea that competition of companies in market economy has a form of competition of products, while company's possibility to

compete in the certain product market directly depends on its product's competitiveness. This position is proved by economic practice which shows that absolute majority of competitive companies is represented in the market by competitive products.

Product methods are based on the opinion that evaluation of competitiveness of economic subject can be performed through evaluation of competitiveness of its products: the higher the product's competitiveness, the higher the enterprise's competitiveness. At that, in order to determine the competitiveness of products, various marketing and qualimetric methods are used, most of which are based on determining the ratio "price-quality" of a product. There are many methodologies of determining the mentioned ratio.

As a rule, indicator of enterprise's competitiveness is determined by finding the average weighted value among indicators of competitiveness for each type of products, where the scales are volumes of realization of corresponding product type. Certain researchers suggest using the market share of product as indicator of its competitiveness, which is more accurate reflection of competitiveness. Second group includes matrix methods. Matrix models include development of the Boston Consulting Group, which is known for its matrix "Relative market share" – "Rates of market growth". The methodology is based on two concepts: curve of experience (according to which, enterprises with larger market share minimize their expenses) and product's life cycle (according to which, growing segments of market have larger perspectives).

Based on the mentioned concepts, business items of enterprises are differentiated from the point of view of relative market share (according to one axis) and rates of growth of corresponding markets (according to another axis). At that, relative market share is ratio of this enterprise's share to the share of the largest rival in the market of corresponding sphere (shares are measured in natural items of products). It should be noted that possession of large market share – according to the concept of the curve of experience – should lead to minimal (as compared to rivals) level of expenses and maximal level of profit.

Rates of growth of market are evaluated as to industry average (market average) values: economic items with higher growth rates than in economy on the whole should be included into "quick growth" cells, while the ones with slow growth rates – into "slow growth" cells. Products with high share in the growing markets ("stars") strengthen competitive positions of company; products with low share in stagnating markets ("dogs") – weaken competitive positions of company. In the matrix field, business items are marked as circles in corresponding quadrants (area of circles is proportional to scale of activities of business items). This group also includes the method of SWOT-analysis.

Third group is comprised of operational methods. According to operational approach, the most competitive are enterprises in which the work of all departments and services is organized at the best level (also, in literature this group of methods is known as "methods based on the theory of effective competition").

Efficiency of each department of company is influenced by many factors – resources of enterprise. Evaluation of efficiency of each department supposes the evaluation of efficiency if its usage of these resources. At that, resources of enterprise are treated in a wide sense – they include not only capital in financial and material form but staff, state of management, state of connection with contact audiences, and organization of marketing. Each resource of enterprises that is determined in this way can be evaluated by corresponding quantitative or qualitative indicator. Thus, competitiveness of company is a totality of private indicators of efficiency of its performance of particular aspects of economic activities – operations.

In order to evaluate the competitiveness of the enterprise under study with the use of operational methods, it is necessary to determine the list of operations and indicators which are significant for provision of competitiveness. As a rule, the given indicators are classified according to groups into marketing, economic, production, organizational, HR, etc. Scope and structure of evaluated indicators and operations vary a lot depending on the sphere under study and author of methodology. For the purpose of evaluation of competitiveness of researched enterprise, each indicator is compared to similar indicator of competing economic subject (or to control value), which results in determination of private coefficients of effectiveness for each operation.

On the whole, any methodology of evaluation of enterprise is based on determining the factors of competitiveness and calculation of integral value of competitiveness indicator in totality of these factors. It is possible to distinguish the following main factors of enterprise's competitiveness:

- Marketing, including brand;
- Management;
- Quality of human capital;
- Technology of production and innovations;
- Market share.

In order to determine the influence of cluster initiatives on competitiveness of modern enterprises, let us define the meaning of the process of clustering and its influence on the distinguished factors of enterprise's competitiveness. This research offers a hypothesis that cluster initiatives facilitate the improvement of values of competitiveness factors and the increase of general competitiveness of enterprise.

3. Analysis of Cluster's Influence on Enterprise's Competitiveness

Clusters influence the competitive struggle in three ways: firstly, through increasing the efficiency of their enterprises and spheres; secondly, by increasing the capabilities for innovations and increasing the efficiency; thirdly, through stimulation of new businesses which support innovations and expand cluster limits. Many advantages of cluster are based on external economy and passing of advantages through different enterprises and spheres. Cluster may be defined as a system of interconnected enterprises and organizations, the significance of which as a single whole exceeds the simple sum of components (Popkova & Tinyakova, 2013a).

Competitive advantages of clusters will not be equally significant in all spheres – despite the fact that clusters cover the whole economy. Usually, the stronger the cluster advantages are and the more popular their products and services are, the fewer the number of viable locations for cluster is (Popkova & Tinyakova, 2013b). Importance of clusters grows with the increase of competition, and the number of clusters shows a tendency for growth with the development of economy (Popkova *et al.*, 2013).

Each of the three influences of clusters on competition depends to some extent on interpersonal relations, personal contacts, and interconnection between networks of private entrepreneurs and organizations. Despite the fact that cluster existence stipulates the development of these relations and increases their effectiveness, this process is not automatic. Formal and informal organizational mechanisms and culture norms often have a large importance in development and functioning of clusters; this will become more obvious in the further research (Reveiu & Dârdală, 2015).

Determining location within cluster can provide a privileged or cheaper access to such specialized factors of production as components, equipment, business services, personnel, as compared to variants of remote localizations – vertical grouping, formal alliances with external structures, or “import” of production factors. Cluster is a spatial organizational form which in its internal sense can be more effective as to grouping of production factors – in case of access to competitive local suppliers. Acquiring resources from outside the cluster can be necessary during absence of competitive local suppliers, but this situation cannot be considered an ideal order. Receipt of production factors from cluster members (local resources) can lead to lower cost of deals, as compared to the usage of remote sources (remote resources). Accessibility of local resources minimizes the necessity for material and production reserves and saves the necessity for expenses for import and relates costs. This checks the tendencies for unsubstantiated increase of prices by suppliers or for non-fulfillment of their obligations due to transparency and continuous character of

relations, as due to bad performance this will impose unfavorable effect on their reputation in the eyes of other cluster members. Supply of resources within cluster stimulates the communication, reduces expenses for adaptation, and stimulates the general provision of supplementary or supporting service – installation, adjustment, users training, elimination of defects, and timely repairs. With all other parameters being equal, access to local resources always prevails over provision of access to remote resources – especially in case of progressive or specialized factors of production which include technology, information, or service, as essential part.

Formal alliances with remote suppliers can soften the influence of certain drawbacks related to access to remote resources. However, emergence of formal alliances with remote or closely located enterprises creates a complex of problems during making trade deals and management and can impose negative influence on enterprise's flexibility. The decision can consist in building close and non-formal relations which are possible between enterprises of local cluster.

Access to required resources within cluster can be more effective than vertical grouping. Inviting specialists from outside often requires less expenses and provides more responsible attitude to work than content of corresponding own departments not only for manufacture of components but in such spheres as increase staff qualification. Vertical integration requires attention from managers which can be used more effectively in something else. Contrary to that, receipt of production factors from closely located suppliers, with which the enterprise has close and certain relations, gives advantages as to expenses and as to the quality. Proximity of suppliers allows setting pseudo-vertical integration, still preserving strong stimuli (Xavier Molina-Morales *et al.*, 2015).

Expansion of the range of production factors which are accessible through specialized suppliers in certain place has been considered to be one of advantages of agglomerations. This idea is still in force, though globalization of markets violates its initial sense. Division of labor is not limited by size of market, as it is international. Suppliers often face the necessity to count only on local market during making most of the deals.

In modern economy, large specialization of suppliers within cluster arises as a result of better perception of market possibilities and reduction of risk due to existence of many local consumers. Moreover, developed clusters include not only one sphere but several related spheres. These spheres often work at very similar production factors, which expand the possibilities of suppliers. Due to that, as well as to importance of creation of external connections and exchange between clusters, width and depth of cluster is often more important for achieving competitive advantages than sizes of certain enterprises or spheres which are part of the cluster.

Clusters provide advantages during receiving the production actors from remote sources. Presence of cluster can reduce expenses for import of production factors from remote sources, as suppliers will set their price more actively, and enterprises could use more effective means of supply. It can be also profitable for suppliers to make large investments in order to make production or services more accessible.

Clusters offer similar, though not identical, advantages in supplying employers with specialized workforce. Cluster leads to emergence of the mass of such employees. This reduces expenses for search and negotiations for hiring employees and increases the efficiency of occupying jobs with appropriate specialists. Besides, as cluster signals about existing possibilities and reduces the risk of change of workplace, clusters can reduce the cost of search for specialized workforce from other places.

Inside cluster, enterprises, and local organizations, there is vast knowledge of marketing, technologies, and other specialized types of information. Access to this information can be organized better and can demand less expenses for enterprises within cluster, allowing them to work more effectively and go to a higher level of efficiency. Such influence is performed also by information flow between departments of one enterprise. Proximity to each other, connections as to shipments and technologies, and presence of constant personal contacts and public connections stimulate the movement of information flows within clusters. An important case of informational advantages created by cluster is accessibility of information regarding current needs of buyers. Picky customers often are a part of cluster as its component, while other cluster members often receive and distribute information regarding their needs.

Development of cluster theory, in its turn, supposes the possibility of establishment of closer connection between theory of networks, social capital, and social activity, between public activity, competition and economic prosperity – and the expansion of these notions. Cluster theory determines who has to be in the network, for which relations, and why. Clusters offer new way of studying mechanisms, through which networks, public capital, and public activity influence competitive struggle and market. It helps to distinguish the most effective forms of networks. Interrelations and trust that emerge in cartels destroy economic profit, while they, facilitating the open exchange of information between customers and suppliers, increase it.

Functioning of clusters also supposes efficiency and flexibility which is possible in networks built on the principle of close location and non-official local connections, as compared to networks which include formal or hierarchical relations between enterprises or institutes and enterprises. Cluster theory can show the formation of relations network and emergence of social capital, thus helping to divide into components the issues of cause and consequence. Development of the theory of clusters helps clearing the sources of network structure, meaning of activities in this

network, and connections between characteristics of network and results of its functioning.

4. Conclusion

It can be concluded that cluster peculiarities which allow them to function successfully in the market include:

- more powerful potential of development, as compared to organizations which prefer to work outside cluster limits;
- more efficient cooperation between cluster enterprises which stipulates the emergence of new entrepreneurial ideas;
- increase of competitiveness of enterprises of cluster;
- flexibility and quickness in decision making, due to organized actions;
- wider opportunities in attraction of investment resources;
- better readiness for implementation of innovational technologies and capability for implementation of high-tech projects;
- strengthening of positions in the market and increase of the level of investment attraction.

Besides, enterprises which are united by cluster limits have better labor and material resources, which gives them additional advantages in the market conditions of economy. That's why implementation of cluster initiatives stimulates the improvement of main factors of competitiveness of cluster enterprises:

- creates conditions for more effective marketing activity and aggregates enterprise to strong brand of cluster;
- increases the accessibility of information and facilitates the distribution of the best practices of management between all cluster members;
- facilitates the development of human capital and increases the accessibility of highly-qualified specialists among enterprises of cluster;
- facilitates the diffusion of innovations, creation, and distribution of leading technologies among cluster members;
- increases the market power of enterprise and market share by means of affiliation with total market share of cluster members.

Thus, the offered hypothesis is proved; it is found that cluster initiatives facilitate the improvement of values of competitiveness factors and the increase of total competitiveness of enterprise. That's why cluster initiatives are a factor of competitiveness of modern enterprises.

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