

CLUSTER AND ITS FORMS IN SERBIA

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Abstract: *The aim of this paper is to present the general concept of the institute of cluster, as well as its manifestations, to re-examine its past development and current situation, to predict its development and evaluate its practical importance. Clusters are sets of business entities or forms of business association. This institute arose from economic literature and doctrinal appearances in the last decade of the twentieth century. By joining forces, business entities in the institutional form of clusters aim to ensure - through lasting interactions - their competitiveness in the market, thus enabling them to optimize profits. There are several types of clusters, depending on the criteria of differentiation, and these are mainly in the differences between conditional legal form of entities, relationships between the partners in the cluster, activities they engage in, etc. The existence of various types of clusters indicates that they are based on "systemic connections" between subjects.*

Keywords: *clusters, association, market development, innovation*

1. INTRODUCTION

The globalization of markets in terms of the application of new technologies and the intensification of economic relations require new forms of organization and performance of economic entities in order to maintain the competitiveness in the respective industry. When companies search for more appropriate ways of performance in the market, the need for cooperation of business entities through various forms of interactions and association becomes ever more acute. This market-based approach of organizing the participants is also present in the micro and the macro-economic environment, and is of vital importance in international business cooperation. Clusters represent one of the forms of inter-linking of economic entities and - as a relatively new legally-economic institut - they are the subject of review of this paper in the function of determining the current situation and create conditions for their further development. It is through cluster market approach that sets or groups of businesses in interacting find it easier to create profits, as they increase productivity, innovation in business, business reputation, entrepreneurial initiative and engagement of new forms of work through employment. These are but some of the general objectives of

the cluster organization, while details depend on the type of cluster, or economic activity in which the group is established. In this paper we specifically address the objectives of the formation of clusters, or uses that are in appearance during its formation. Having in mind the competitiveness of Serbian economy, as well as the majority of Serbian businesses and the lack of a level playing field, a cluster formation is one of the important conditions to increase competitiveness, primarily through increased productivity, production and exports. For this qualitative shift in the economic development it is necessary to change the approach to solving economic issues, engage into rational privatization, restructure business entities and change work habits of employees and employers through the acceptance of the generally-recognized and practically confirmed standards of modern business operations. The difficult economic situation in the country and decades of accumulating problems caused by different issues, are certainly not the reason for lack of acceptance or too slow acceptance of universal economic institutes, in which we can classify clusters. In our country cluster development is indeed slower than in developed countries, and in these circumstances of transitional problems it is even more necessary to speed up the process of clustering on clearly defined principles of market economy. This paper aims to, at least, support the present pointing to the need for the formation of new clusters as well as the need to bring about new ones.

2. CLUSTERS - GROUPS OF BUSINESS ENTITIES

2.1. On the concept of cluster

Defining the concept of cluster that is under consideration here, in some authoring form or another, is absolutely necessary, in order for cluster to be viewed in its entirety and in the context of all factors that have a constitutive character and was intelligible to the theoretical concept, as a basic prerequisite for their successful practical expression of the desired shape. In its general, original, meaning *cluster* is a group or collection of something. These "groups of something" are the explanation of the essence of clusters and in the economy they are the foundation of the "systemic connections" of factors which are formed by the cohesion of their action. Most often the association of small and medium enterprises is based on interest, specific or related activities, in order to facilitate operations, joint development or joint appearance in the market. This general definition of clusters in the economy is the basis of the different variations of the concept of specific clusters. There are opinions that the term cluster is not yet clearly defined, especially in countries in transition, but it is not a peculiarity of this institute, many institutes have not been definitively determined conceptually, but they do indeed satisfy the purpose for which they are established or formed. Thus, in defining clusters Michael Porter's definition [1] is often paraphrased by which the clusters are geographic concentrations of interconnected companies, specialized suppliers, service suppliers, companies from related industries, and associated institutions (eg, universities, standards agencies and trade associations) which compete or cooperate.'. According to one version of paraphrasing, cluster is a 'geographically concentrated set of interconnected companies, specialized suppliers, giving services and related institutions within a given area, present within the national market or region 'or' cluster is a group of companies and organizations to each other through networking and contacts improves their performance on the market and achieved a competitive advantage, i.e. generates a surplus

– profit.”[2]. The common denominator of most definitions is that clusters in themselves involve economic operators from one activity, but also those of the vertically related activities (‘producers of complementary products, which means that the cluster in the textile / apparel branch of the producers of raw materials, manufacturers of readymade garments, scientific, educational institutions, government, non-governmental organizations.’) [3] Also, there is general agreement that cluster is a “set of geographically concentrated business entities ” in the same or different activities of interest related. The fact that clusters are based on the “systemic connections ”, in a practical form, means that it is a complementary activity associated states (production, processing, services, technology or similar work processes, professional qualifications, product distribution, the resources of a different character, use information on business, etc.). The relative geographical limitation of clusters is not their disadvantage, because it – as a factor - is one of the reasons for the formation of clusters, and the characteristics of the different nature of the geographical area influence the character clusters (clusters, which can be made out of elements of their concept, a certain nature, demographic, cultural, economic and other characteristics of the region).

2.2. The objectives and reasons of formation

From the introductory remarks and conceptual determination of clusters it is visible what are the main objectives and the reasons for their formation. The overall objective of the cluster is to use the ‘system connections’ affiliated business entities for business success and profit. Basic conditions for the realization of profit are high productivity, competitiveness, innovation, etc. and they efficiently achieve operation within functional economic system where there is interaction of the participants, as is the case with clusters. The overall objective and the reason for the formation of clusters is concretized in clusters of certain species in specific objectives, depending on the activities in which they were formed. Since essential elements to the existence of clusters (productivity, competitiveness, innovation) are insufficiently developed and realized in companies in Serbia, the extent of clustering in our country is not good enough and is required both qualitative and quantitative development of the economic association, especially in clusters. Targets of cluster forming can be concretized differently, but it is important that those are polyvalent and interdependent activities that provide objective. Thus, in the context of competitiveness of clusters and the objective of clustering, the aim is “increasing the competitiveness of domestic producers on the domestic and foreign markets and ensuring conditions for market expansion (increase of exports); better and more efficient use of local resources (natural, production and personnel); initiate and support cooperation between the companies, between companies and educational and development institutions; connect with funds to finance innovative projects; training and education.” [3] Thus defined objective of clusters we present herewith because of its comprehensiveness and whatever is related to a particular economic activity (textile and clothing branches), it can be adjusted in the above activities of the members, to other economic activities. For the formation of clusters knowledge is extremely important, objectively given that the economic weight of individual operators realize desired business results more difficult to access state and other funds that provide financial support for carrying out their activities harder to achieve the exchange of business information, technological and organizational knowledge, weight bearing on the state authorities in arranging regulations in certain

economic and other activities, the more difficult establishing contacts with large business systems and specialized business partners, etc. Clusters are able to significantly perform at the market as well as in relation to the state authorities, which should be an important factor supporting the performance of their activities.

2.3. Types of clusters

In theory and practice, there are many types of clusters, depending on the criteria for their determination, primarily of the activities they are involved members of joint-under-takings. There are: industrial clusters, clusters of management, clusters of small and medium-sized enterprises, clusters of entrepreneurs and the like. and within these clusters are specific, narrower, the industry (automotive cluster, cluster of flowers manufacturers, software cluster, etc.) According to the criteria of the relationship partners in the cluster there, " horizontal clusters (partners at the same level in the chain of creation of value added), vertical clusters (partners in the pyramid suppliers), regional clusters (partners in the commercial sector) clusters in the industry (partners in a specific field of activity), entrepreneurial clusters (partners / to companies), international clusters (partners in overlapping networks of clusters) and others. " [2] in practice, there is a division of clusters by economic operators, according to the form of organization, according to the transfer of knowledge and technology [4] 1) Division by economic entities: the cluster with a large number of small operators (often in terms of clusters in which they gathered direct competitors which belong to micro or small enterprises, and they have a common interest in addressing the structural problems of their branches of activity); clusters with one or more leaders (when they appear as part of the cluster operates a significantly stronger company, which usually belongs to the category of medium or large company. The direction of development is determined by the leader of the lower support members); subcontracting clusters (they occasionally establishment sized enterprises to realize their own projects. Cluster members are mainly small subcontractors and suppliers closely related to the required activities); specialized clusters of medium-sized enterprises (established by medium-sized enterprise specializing in their industry, how to increase competitiveness and enable further development); Breakdown by form of organization corresponds, basically, to the breakdown cited in references in paragraph 1), according to the criterion of the relationship partners in the cluster; 3) Division to the transfer of knowledge (knowledge sharing among potential competitors sounds pretty unrealistic among local entrepreneurs. However, it is in developed countries, a common method that increases the potential of each company): MarshalArrow-Romero's model is the foundation of Silicon Valley in the US. Among IT companies which could hardly compete with each other there is an exchange of knowledge to make it through value-added services or products achieved higher profits each member; Porter's model is applicable when it comes to direct competitors. This is not about the disclosure of vital business secrets, but about the transfer of the right information so that everyone can increase their efficiency and jointly compete on even stronger markets in which the individual can not compete; Jacobs model is based on the transfer of knowledge between the members of which have related activities, while innovation and development parts originating in the fierce competition to create more quality products and enable new business. 4) Division according to technology. According to technology, there are simple, compound and complex clusters. Simple clusters are based

on our own technology such as the production of food or raw materials, where it comes to the improvement of existing processes. Complex clusters combine two to five different technologies trying to achieve synergy effects in each. Complex clusters are extremely rare and include a range of different technologies, interdisciplinary specialist knowledge and are mainly focused around the chemical industry.

3. CLUSTERS IN SERBIA - CURRENT SITUATION

In the previous part of the paper, speaking about the concept and aims of and the reasons for the formation, we have given basic information and a general assessment of the clusters in Serbia, whose development and quality depend on several factors, but primarily on the degree of economic development and the state of the economy of the country. 'Clusters develop with more intensity where small business achieve a higher level of development, as well as in countries with a tradition and experience in the development of business incubators developed with the relevant institutions, and where there is a highly qualified, trained, educated and technologically trained workforce. The basis of clustering is in its entrepreneurs, managers and innovators who work in related, interconnected companies' [5]. These assumptions cluster development does not represent all the preconditions of its development, but these are some of the most important, and it is clear that the basis for the development of clusters in Serbia is very weak and requires a special effort of all relevant stakeholders to intensify its development. This view looks like a common theoretical declarative commitment and dedication, but the issue of clusters with us he has a constitutive character. In complex transitional conditions with inherited and present lagging behind in technology and market development, just the effort of all relevant factors of economic entities and the state (through flexibility and expertise of its authority) can accelerate the practical association of businesses in all forms, but particularly in the form of clusters. Opinions are divided, in the legal and economic theory, whether in the economy of Serbia there are any real clusters or adapted forms of clusters similar to clusters around the world. Notwithstanding this serious dilemma, essential characteristics and principles of organization of clusters are clear and the business must seek to establish all rational forms of business association, and that in practice, develop their forms that aspire to 'real' forms clusters. This situation of forms of cluster development in Serbia is conditioned on the inherited experience of the forms of association that is substantially different from the cluster ways to connect businesses, as demonstrated by the characteristics and type of cluster that has been mentioned. Objectives of clusters are very different indeed from the goals of earlier mergers of undertakings (market width, etc.). Private initiative and entrepreneurship, which constitute one of the bases of the cluster organization, are not at the required level of development. Government efforts are not insignificant in this area, but not nearly enough for serious development of clusters. Ministry of Economy and Regional Development has been working on the realization (since 2006) of the Programme to support the development of clusters. Serbian Chamber of Commerce formed the Council for clusters with defined mission, vision, goals and tasks and it is one of the attempts of the state to accelerate the development of clusters in Serbia. Council in 2012 issued a catalog of clusters in Serbia [6], which is a step towards creating the record of clusters as a starting point for activities on new development impulses. However, there is no unified record of the cluster, since national authorities of some clusters and

their development official and software do not support and do not have data about them when making records. Given the fact of relatively disordered records on clusters in Serbia, we do not use specific numbers of active clusters, noting that on the specified catalog from year 2012 collaborated some 40 clusters. According to many authors, the number of business clusters is slightly over 20.. Typical examples of clusters in Serbia are: the Automobile Cluster of Serbia (the first cluster that was formed in Serbia in 2005, with headquarters in Belgrade, as a network of Serbian companies and organizations in the automotive business. It includes 40 companies, 5 support institutions, about 12,000 employees and a turnover of around 280 mil euros); Serbian software cluster, cluster BIPOM-Balkan-Black Sea Industry Agricultural machinery, Šumadija flower cluster of flower producers, the Agency for wood-cluster from Serbia, etc. Most clusters are formed in the field of agricultural and food industry and tourism. Clusters of small and medium enterprises are the most important forms of association and collective operation of these business entities. Speaking about the objectives and reasons for the formation of clusters we pointed out the assumption that a small business undertakings difficult to achieve independently, without relying on larger business entities or systems. "The European Union with each document of strategic development of its economy at the center of policies and measures to encourage the development of small and medium-sized enterprises places activities aimed at innovation, the establishment of small and medium-sized enterprises and networking, and in particular on the development of clusters. This, especially, as of the territory of the European Union SMEs account for 99% of the total number of all active business entities." [7]. In Serbia too the small and medium enterprises (SMEs) and entrepreneurs constitute the most important segment of the Serbian economy, although at a much lower level of development than SMEs in the European Union.. The consequences of the global economic crisis and poor development base in Serbia resulted in a standstill and thus slow development of clusters of small and medium-sized enterprises. The state has realized the role of the SME sector and proclaimed 2008 as the year of strategy development of competitive and innovative small and medium enterprises for the period 2008 to 2013 by setting strategic goals and directions of development of this sector. This strategy is aligned formally with the European Charter for Small Enterprises and the Small Business Act. It is difficult to determine to what extent this strategy is implemented in the reporting period, no established, it can give a general assessment that the present recession has significantly downgraded its results, although the first stage of strategy successfully and quickly implemented. The realization of development strategy of SMEs is extremely important because in Serbia, these companies account for over 99% of the total number of enterprises. Operation of small and medium-sized enterprises in the form of clusters will be achieved all the business assumptions that we highlight comparative advantages of clusters as a form of joint economic action and 'networked' interactions associated companies (productivity, competitiveness, innovation, etc.). They are extremely important, especially for the Serbian economy, industrial clusters that represent " a complex organizational model, geographically networked related companies from one or several industries and companies from different and complementary activities " [5] This concept of networking of business entities clearly indicates a large number of participants in a particular economic activity, but also the need for the participation of institutions related to the support of economic activity (the provision of various services: financial, transport, communication, etc.). Without this

approach the organization of industrial action does not have the conditions for competitiveness of Serbian industry.

4. LEGAL FRAMEWORK AND PLAN OF CLUSTER DEVELOPMENT - FINAL CONSIDERATIONS

The achievement of this paper's objective, as stipulated in the abstract, can certainly further promote the institute of cluster in Serbia, through the introduction to both general and some special features of clusters, to the extent permitted by the scope of this paper. On several occasions we emphasized the necessity of a greater and continuous involvement of the state in the process of clustering Economic Area. One of the most serious steps in this regard is the acceptance of the above mentioned Small Business Act and the EU obligations of its application through ten principles formulated. The adoption of the Law on Associations of 2009 (Official Gazette of RS, ' , No. 51/2009) offers a broad legal basis for associating the NGO sector, and especially the economic sector in the form of clusters, especially because of the express provisions of that legal persons can be founders of the association, as in the previous solution was the exclusive right of individuals. Legal solutions represent a suitable framework for the achievement of important goals operation cluster-productivity, innovation, cooperation at all levels of business, organizational profiling. The entities organized in clusters feedback should influence the further improvement of the legislative and institutional framework of operation. In addition to the creation of an appropriate legal framework for the operation of the cluster state should provide favorable conditions for financing this operation (especially non-refundable incentive funds), as well as the education of the participants assumed that successful organization of the cluster. Support to the realization of the state of cluster development provides one of the essential preconditions of stimulating economic growth and development. Legal theory and practice are largely in agreement that Serbia should develop in clusters, in the international economy, the adopted principles and to, first, in areas where it is possible to achieve rapid results and to achieve adequate competitiveness and productivity. The special significance of these results is gaining legitimacy of active business entities to participate in international economic cooperation and achieving competitiveness in these conditions of market operation. International competitiveness of businesses can be achieved only through the development of complementary forms of doing business, and clusters are one of the optimal forms to achieve that goal. Strategic orientation of a cluster is a prerequisite to achieve the set business objectives, and it must involve better use of yet underused domestic resources, in all their forms (energy, manufacturing, human, etc.). Better use of different resources involves clusters of location close to their source (raw materials, a significant market, scientific and educational institutions, industrial centers, etc.). Individual cluster development should be monitored, multidisciplinary, efforts to create a favorable business environment for the development of clusters, which is not yet satisfactory. This is one of the important problems of clustering in transition countries. Is indisputable and decisive importance of the completion of the privatization process and faster affirmation of entrepreneurship and private initiative in all its forms, with or without government support. Cluster development should be exempted from the inherited habits of administrative and procedural irrationality.

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