



CLUSTER ESTABLISHING AND DEVELOPMENT WITH EXAMPLES FROM REGION OF VOJVODINA

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Abstract

Companies are constantly asked to improve performances in order to get the chance to retain or to improve own market position and financial situation. Encouragement to join companies into clusters is an effective instrument for strengthening of competitiveness of companies and regions. Major advantages of clusters lies in the multidimensional closeness of all participants- it is not just a matter of geographical but also of cultural institutional closeness and harmony. Clusters have possibility of developing their own specific mixture of competitive advantages which is created on the basis of locally-developed knowledge as a result of mutual relations, cultural heritage and local characteristics.

Key words

Cluster, Cooperation, Competitiveness, Flexibility, Small and Medium Enterprises (SMEs)

1. INTRODUCTION

Nowadays, one of the greatest challenges companies have to face is the change towards flexible and demand-driven production. More information has to be handled and a considerable speed-up of development and manufacturing processes is needed. However, the actual situation is characterized by strong borderlines between process planning, production control and scheduling systems, caused by extreme specialisation and independent historical paths of system evolution. This gap implies loss of time and of information. Thus, there is a strong need for innovative concepts for management and control of integrated information logistics, production scheduling and process planning. Manufacturing enterprises are now moving towards open architectures for integrating their activities with those of their suppliers and customers within wide supply chain networks. To compete effectively in today's markets, manufacturers must be able to interact with customers, suppliers, and services rapidly and inexpensively. Agent-based technology provides a natural way to design and implement such manufacturing environments.

Manufacturing needs new organizational principle and structures to face new challenges: customer-driven production in a volatile market environment, globalization, the potential of electronic commerce and virtual enterprises, and the need of integrating human resources. Redundant functions and distributed responsibilities, tasks and resources are necessary for responding to changes, let they come either from internal disturbances or from external market conditions [1]. Transformations of manufacturing organizations already point toward network-like, dynamic and reconfigurable federations where production is carried out by more or less autonomous and cooperative production units.

In conditions of globalization, expressed, the survival of companies is continuously adaptation to market conditions. Also, any organizations can not itself to allowed to become isolated island, in itself sufficient. Each organization is network of other organizations. Some organizational metaphor used terms such as klusterska organization (cluster organization), network organization (network organization), and organizational market (organizational marketplace). All of these concepts have certain common characteristics, such as hierarchy, dynamic structure and important skills and knowledge of each individual. Although they may have significance in the digital age, but they can not be considered a universal solution. Despite proposed new models remains the primary Duality between hierarchical structure (bureaucracy) and the network structure. Nonaka and Takeuchi [4] pointed out that if the most of the organizational structure in the twentieth century oscilrala between the two types of organization, it is managed for the organization of knowledge required smart combination of both ways. They proposed the concept of related organizations, which is able to maximize efficiency at the level of organization (hierarchy) and local flexibility (the network). This

organization allows the growth in size and complexity, with the retention of the basic ability to create value.

In new business conditions, change of behaviour in Small and Medium Enterprises is needful. Vitality of enterprises requires high level of adaptation on changes of requirements, with two points of view - adaptation agility and costs. Enterprise have to enable to survive vibration on market and to profit by an opportunity which can accrue from changes in external factors. Enterprise has to be organized so that if „things start badly“ it must be identified on time and enterprise has to have enough flexibility to escape it with minimal loss. So, enterprise has to understand and anticipate changes of environment and react quickly and adequately. If enterprises want to be successful in these more complex and turbulent conditions, they have to:

- ✚ Increase sales continually on domestic and international markets
- ✚ Be on peak with quality and technology
- ✚ Produce and invest goods on market with competitive prices
- ✚ Provide financial resources for development
- ✚ Provide working capital
- ✚ Provide possibility for flexible specialization
- ✚ Provide skilled worker
- ✚ Confidence and connection on local level

One of solutions for these problems is cluster. The major objective of this paper is to show how cluster can improve competitiveness and what's happen in Vojvodina.

2. CLUSTER ESTABLISHING AND DEVELOPMENT

What is cluster actually?

If enterprises are similar and have common area of business, and if they are concentrated in the region and have good cooperation, then there is only one step to formalize that cooperation and rise it on the higher level, through the business networks or clusters. Clustering can be known as a competitive cooperation in the purpose to gain higher level of competitiveness and success. Clusters are natural join of enterprises in which they retain own special characteristic and have option to choose level and type of cooperation. Clusters are based on systems relations between enterprises. Relation can be built on common or complementary products, production process, based technologies, needs for natural resources, qualification requirement or distribution channels.

Clusters are an international phenomenon that exists in a multitude of shapes and sizes. Clusters can consist exclusively of firms operating in the same line of business or include whole supply and value chains. Clusters vary widely regarding the number of participants and their degree of organization. For example, they generally contain firms that compete against each other, although co-operation may be achieved on a case-by-case basis. In some cases, inter-firm networking leads to the creation of strong horizontal bonds among firms supported by social institutions, whereas in others, vertical links with very little interaction and no cluster organizational sub-structure may prevail. How far a cluster may geographically expand is very interesting question. Depending on the individual cluster logic, a cluster may be firmly rooted in a local context or indeed span a whole country with cross-border or international links. Clustering occurs in all branches of industry, in high tech or traditional industries, as well as in agriculture or in the service sector.

Enterprises in cluster can expect important benefits, and some of them are:

- ✚ higher competitiveness,
- ✚ reduced operations costs,
- ✚ expand market share,
- ✚ standardization,
- ✚ higher productivity,
- ✚ diffusion of technological knowledge and innovation and
- ✚ increasing flexibility.

Members of cluster retain their financial, legal and management autonomy. Firms are thus able to realize their strategic objectives by grouping into a separate legal entity which does not imply a loss of identity for any member. This constitutes the main difference between clusters and other types of strategic alliances. A cluster thus differs from a merger in the sense that all firms involved preserve their original legal status and the management of each firm retains its independence. A cluster is also not to be mistaken for a cooperative. Even if both can be considered as a type of association, the principles and philosophy uniting the members of cooperatives differ considerably from those driving the members of a cluster. A cooperative aims to gather the strengths of all its members in order to increase their bargaining power and to make the best use of the means available. In the case of a cluster, by contrast, it is the members' common weaknesses that constitute the rationale for the union.

Cluster not only exist among firms in the manufacturing sector, but can also be found in the service sector as well as among artisans.

On territory of Autonom Province Vojvodina, major problems are:

- Small adequacy between structure and business culture of partnership enterprises
- Lack of legal and financial possibility for cooperation
- Lack of entrepreneurship spirit and skills or competence
- Low level of confidence between partners and other institutions
- Lack of knowledge
- Lack of informal connection
- Confused and unreal expectation inside of cluster

But if you ask them “Do you think that your firm needs to be a part of some cluster?”, they say “Yes”. “The key of development a lot of small companies within cluster is in their ability to scoop the power from cooperation and common work whit the use of formal and informal networks” (OECD, 1996). Efficient clusters insist to have strong networks and partnerships system. Confidence and relations between employees must be developed and as such they provide high level of „intellect capital“. In order to develop this partnership, time is necessary. “Very important thing is attempt that firms start to work together in moment when that is logical. But if they want to develop cooperation years are necessarily” (Practitioner Observation, 2002). It’s necessarily highlight that first clusters weren't „formed“ than „discovered“ in regions where exists and cooperate more successful enterprises from one economic branch or one value chain. Also, there are engineers, layers, business consultants, researchers, institutes and educational institutions. In regard to fact that suppliers and manufacturer station to oneself and starting business on place where is concentration of firms and partners increased that means that clusters can develop alone.

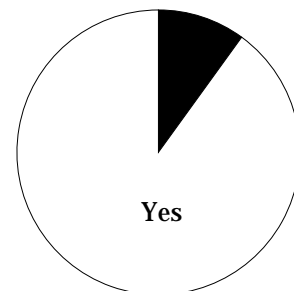
First of all, we have done global analyse about factors of development and potentials for development in Autonomy Provincial of Vojvodina and some of that factors was:

- Natural resources
- Demographic factors (Human resources)
- Economy- Infrastructure
- Culture and education
- Social protection
- General conditions

After that, we have done research work in 140 small and medium enterprises in Vojvodina about their problems in trade and needs for cooperation with others. In this paper we won't present all results, but we will mention some of them. First conclusion is that 90 % enterprises want to be part of cluster, because they thing that can improve their situation and position by cooperating with other.

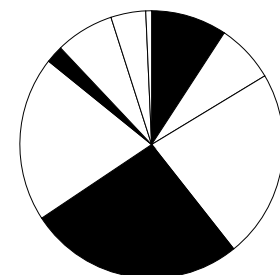
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	NO	14	10.0	10.0	10.0
	YES	126	90.0	90.0	100.0
	Total	140	100.0	100.0	

Table 1-Results of question “Do you want to be a part of cluster?”



		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No rang	4	2.9	2.9	2.9
	Management	46	32.9	32.9	35.7
	Production	54	38.6	38.6	74.3
	Sales	16	11.4	11.4	85.7
	Marketing	10	7.1	7.1	92.9
	Administration	1	.7	.7	93.6
	Engineering	7	5.0	5.0	98.6
	Trainig	2	1.4	1.4	100.0
	Total	140	100.0	100.0	

Table 2-Results of question “Which are your needs for improvement?”



One of reasons for enter in cluster is export improvement and we found important data that only 49 enterprises export their products, but 91 enterprises don't do that. Cluster can help them, because in cooperation with others they can produce products with better quality with low costs and higher productivity. For cluster operating information technologies, good Internet connection and good communication between enterprises are very important. Only 104 enterprises have Internet connection, but just few of them have modern Internet.

3. CONCLUSION

If we start from main goal - acceleration industry growth, connection between employment rate and life standards in Republic of Serbia, creating of condition for competitiveness growth is necessarily. Only high competitive enterprises provide economy growth, new jobs and prosperity. Economy of country need to be more open, creative and innovative. Companies, so as people, can't resist independently, without cooperating with other people, companies, institutions and organizations. Cooperation between companies exists regardless of cluster initiatives or plans of effective business networks development. Because of momentarily situation in Vojvodina, small and medium size enterprises is joining from two reasons – high pressure of competition and imperative of adaptation. Therefore, cluster strategy development doesn't need to be only vision, than it would be more reversed toward specification of objectives, concrete steps and criteria in order to improve competitiveness. One of major task of cluster needs to be set up in position that as organization in development reacts flexible on changeable market conditions and innovations. Also, task consists of improving market position of each enterprise individually and clusters as whole.

Motto of every cluster needs to sound "Learn from the best". In order that Serbian cluster will be competitive on international market, their competitiveness can't only be based on advantages of lower working costs than on productivity, quality and innovations.

Clusters in Vojvodina have to know those only competitive products are not enough for success on international market. They have to establish their success on studious and good logical marketing concept because „they can't have benefit from the best product if they are invisible“.

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