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ANALYSIS OF VUKOVAR-SIRMIUM COUNTY WOOD INDUSTRY CLUSTER: THE GAP BETWEEN THEORY AND PRACTICE

ANALIZA KLASTERA VUKOVARSKO-SRIJEMSKJE ŽUPANIJE: RASKORAK IZMEĐU TEORIJE I PRAKSE

ABSTRACT

New business trends and the challenges of global market have put pressure on some locations to become more attractive to business, as well as on business entities to become more competitive globally. Cluster, as a special form of organised and interconnected companies and a competitive business model, represents a group of companies that complement each other to enhance their development and performance in the market based on their geographical concentration. The competitiveness of a region does no longer depend solely on individual companies, but more and more on innovative practices of entire industries and sectors. This paper aims to illustrate cluster strengths and weaknesses, their potential benefits and positive effects using a practical example of a cluster created in Vukovar-Sirmium County. Although association and networking of companies should create competitive advantage, boost productivity and innovation, and stimulate growth both at the level of businesses and at the County level, research using methods such as description and compilation has indicated that in practice there is a large gap between the expected and the reality. More attention should be paid to cluster policies at the County and regional levels so that clusters could make headway during their life cycle and stabilize their own business environment. This form of cooperation between business entities is a good example showing how to maintain stability within a certain area by connecting and cooperating with each other. Learning from the experience of foreign countries, studying best practices and connecting with education institutions, are some of the guidelines for creating a competitive and successful cluster. The potential benefits from creating a cluster provide additional motivation to all the actors to support and promote this form of cooperation.

Key words: cluster, association, Vukovar-Sirmium County, competitiveness, environment

SAŽETAK

Rezultat suočavanja sa novim trendovima poslovanja i izazovima uvjetovanim globalnim tržištem, utjecao je na stvaranje pritiska na određene lokacije da postanu privlačnije za poslovanje, te na gospodarske subjekte da postanu globalno konkurentniji. Klaster kao oblik posebno organiziranih i međusobno povezanih poduzeća, te kao oblik konkurentnog modela poslovanja, predstavlja skupinu poduzeća koja se nadopunjuju s ciljem povećanja razvoja i uspjeha na tržištu na temelju osnovne zajedničke veze: zemljopisne koncentracije. Dakle, konkurentnost regije nije uvjetovana samo pojedinim poduzećima, nego i sve više inovativnim aktivnostima cijelih industrija i grana. Svrha rada je prikazati primjer klastera na području Vukovarsko-srijemske županije, te ukazati na snage i slabosti, potencijalne koristi i pozitivne učinke koji se pojavljuju kao rezultat funkcioniranja ovakvog oblika poslovanja. Premda bi udruživanje i umrežavanje poduzeća trebalo voditi ka

ostvarivanju natjecateljske prednosti, povećane produktivnosti i inovativnosti, te veće stope rasta kako na razini gospodarskih subjekata, tako i na razini Županije, metodama istraživanja kao što su deskripcija i kompilacija dolazi se do glavnih rezultata koji kazuju da u praksi postoji veliki nesrazmjer onoga što je i onoga što bi trebalo biti. Politici klasterizacije Županije, kao i cjelokupne regije, potrebno je posvetiti više pozornosti kako bi klasteri ostvarili napredak tijekom svog životnog ciklusa koji ima za cilj stabiliziranje vlastite poslovne okoline. Uspostavljanje ovakvog oblika poslovne suradnje između gospodarskih subjekata ukazuje na činjenicu da postoji dobar način kako međusobno surađivati i povezati se s ciljem održavanja stabilnosti unutar jednog prostornog okružja. Učenje na primjerima stranih zemalja, proučavanje dobrih primjera iz prakse kao i povezivanje sa obrazovnim institucijama, mogu biti samo neke od smjernica za formiranje konkurentnog i uspješnog klastera. Stoga, sve potencijalne prednosti koje proizlaze iz formiranja klastera, predstavljaju dodatni poticaj svim čimbenicima da se uključe u promicanjem ovakvog oblika suradnje.

Key words: *klaster, udruživanje, Vukovarsko-srijemska županija, konkurentnost, okružje*

1. Clusters - Introductory Considerations

Business clusters represent a development model for businesses (especially small and medium-sized) because their networking drives development both at the local and regional levels. Clusters entail creating strategic associations with various institutions driving innovation and competition between rival companies, customers and suppliers in the region who share the same geographic concentration. Business entities have discovered a new way to cooperate with each other and interconnect with an aim to maintain stability within a certain area. New business trends and globalization have increased the pressure on some locations, i.e., regions to become more competitive globally and attractive to business. In short, business clusters represent inter-organisational networks with comparative advantages. They are a special form of organized and interconnected companies that complement each other to enhance their development and performance in the market. The word cluster means “a group of things growing close together, a bunch“, e.g. a bunch of grapes. When you look at a grape stem, without the grapes, it reminds of a network. In their structure, clusters resemble cooperatives. Clusters are particularly popular in Italy, e.g. furniture industry clusters or shoe industry clusters, whereas automotive industry clusters have developed in Austria. In this paper, we look into Croatian clusters to see how competitive they are and investigate how the only cluster in Vukovar-Sirmium County operates and influences the development of the County. Indeed, there are many examples outside the borders of the Republic of Croatia, which can be emulated to establish a competitive and successful business in the observed region. According to The New Oxford Dictionary, cluster means “a group of similar things or people positioned or occurring closely together”. According to the same dictionary, the word cluster in the English language (Old English: clyster) is probably related to clot (of blood or some other fluid), whereas in German it comes from an Old German word kluschter and later kluster, which, according to the dictionary, was used by the Grimm brothers. In the EU Dictionary, the word cluster is translated to Croatian as *klaster, grozd, nakupina, skupina, roj, kita*.³³ Clusters represent a concept, a phenomenon and a strategy at the same time. They strongly influence the level of development of a country and its economy. Different authors define clusters differently: by direction in which they develop, their type and size, as well as the degree of their development. Clusters are differentiated based on the very criteria mentioned above, because the development of clusters depends on the technological, market, organizational and strategic changes. This is the reason why, as already mentioned, there are different definitions of a cluster. One of them explains in detail that a cluster is a geographical concentration of interconnected business entities, specialized suppliers, service providers and associated institutions in a particular field representing

³³Available from: http://oliver.efos.hr/razvoj/docs/Klasteri_Erkapic.ppt (accessed 12 February 2013)

a region or a country (Horvat et al., 2004, p. 15). Clusters are highly competitive by nature; however, most cluster participants do not compete directly with each other but rather horizontally with business entities carrying out similar activities but have different markets. A cluster is also defined as a geographic concentration (at local or regional level) of business activities, business entities, and institutions, which have established formal or informal relations, both horizontally and vertically, and exchange information, knowledge and goods through the industrial sector to produce a common product (Horvat et al., 2004, p. 15). One of the definitions of geographic agglomeration, i.e., gathering of businesses in the same industry or related industries states that an industrial cluster is a concentration of businesses or industries linked by common market, products, suppliers, and employees (Horvat et al., 2004, p. 16).

2. Cluster as a Competitive Development Model

Small businesses organised in a cluster with large businesses can contribute significantly to the flexibility or reorganization of large businesses, and have an important role by taking over a part of the activities that do not fall into the responsibilities of a large business enterprise and which can be detached. It is therefore necessary to find a way and a reason for horizontal and vertical linking of small and large businesses. The interconnection should be the result of mutual desire to increase competitive advantage in the global business environment of both large and small business entities individually and the cluster as a whole. In their approach to clustering, small businesses should be viewed as complementary to large businesses rather than as their alternative. The benefits are mutual; small business entities depend on the large ones, while at the same time large business entities depend on a group of interconnected small, manufacturing and service businesses. As small businesses meet the needs of a niche market in a cluster better than large businesses, they should take over the tasks which large businesses cannot perform effectively due to the mass production technology. It is a well-known fact that before the Homeland War in 1990s, all large manufacturing business entities in Croatia functioned in this way. After the war, a large number of them did not undergo a thorough market, financial and organizational restructuring to adjust to the constant and rapid changes in their environment. Large business entities are restructured based on quality, design and services, organizational and technological flexibility and market adaptability. This means that due to the irreversible nature of business, large business entities can become more flexible only by creating a new line of autonomous business entities (Horvat et al., 2004, p. 27). The most important reasons affecting the competitiveness of large business entities that should encourage detaching particular production phases from a large business entity, transforming them into individual entrepreneurial projects and joining a cluster, i.e., reasons for which existing or new business entities in the industry should join a cluster are as follows: (Horvat et al., 2004, p. 27).

- reduction of transaction costs,
- specialization,
- use of each other's flexibility and specialization,
- use of common infrastructure and learning.

After organizational restructuring, business entities need to be reduced in size to reasonable proportions corresponding to their vision, mission and set goals. Various factors that affect the competitiveness of both business entities in a cluster and a cluster as a whole in the global business environment, which enable timely, accurate, efficient, and continuous satisfaction of the needs of customers and other interested parties are as follows: location, innovation, flexibility, specialization, trade interdependence, link between science and practice, emulation, learning, education and training, human resources, technology development, availability of capital, and quality (Horvat et al., 2004, pp. 27-33).

3. Analysis of the Vukovar-Sirmium County Wood Industry Cluster

The Vukovar-Sirmium County wood industry cluster was established three years ago on the initiative of the Vukovar-Sirmium County prefect. The primary goal of creating the cluster was to promote and protect the interests of the Vukovar-Sirmium County wood industry. Businesses have joined a cluster to achieve mutual goals. Short-term objectives and activities of the cluster are focused on keeping and processing the raw materials in the County; increasing the total earnings of cluster members; increasing employment and productivity; increasing the productivity and exports, and fostering the development of wood industry in Vukovar-Sirmium County.³⁴ The principal activities of the cluster are as follows: carrying out preparatory work for the construction of the wood-processing centre, education and professional training of employees, marketing and other promotional activities, activities related to the survival of the wood-processing industry in the County, and activities to improve the quality of the placement of products from the existing product range of cluster members.³⁵ The long-term goal of the wood industry in the County is to become an economically successful, profitable industry with a balanced and sustainable development, which will follow the European and global trends.³⁶ Natural resources are an important input which needs to be used economically for the purpose of overall development. Industrial wood processing in Vukovar-Sirmium County has many comparative advantages such as its own natural resources, a long tradition of wood processing and sales to international markets, a high level of privatization (all wood processing and furniture industry companies are private) and quality human resources. Current conditions in the wood processing sector are favourable for change, because most companies are aware of the fragility of market position in times of global competition, and especially during this economic crisis as well as the need to change their business policy³⁷. The observed cluster consists of business entities whose employees have lower qualifications. All business entities aim for growth and transformation into larger economic entities supported by their technological capacity. However, business entities here are primarily focussing their efforts on ensuring their survival in the long term. Upon analyzing the Vukovar-Sirmium County wood industry cluster, which is partly the result of spontaneous association and partly planned organisation with the assistance of the County, it has been concluded that this cluster has advantages but also numerous disadvantages. Some of the advantages are the potential for high productivity, joint implementation of projects and the availability of information. The shortcomings are evident in the price competition between each other, failure to share knowledge and technology, failure to co-develop a brand, etc. In order to evaluate the strengths and weaknesses of the observed cluster, we used the SWOT analysis. The results of the analysis are shown in Table 1.

³⁴ Available from: <http://drvni-klaster-vsz.com/index.php?link=2> (accessed 12 February 2013)

³⁵ Internal document belonging to the Vukovar-Sirmium County wood industry cluster - 2012/2013 Plan and Programme

³⁶ Available from: <http://drvni-klaster-vsz.com/index.php?link=2> (accessed 12 February 2013)

³⁷ Available from: <http://drvni-klaster-vsz.com/index.php?link=7> (accessed 12 February 2013)

Table 1 SWOT analysis of the Vukovar-Sirmium County wood industry cluster

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> • Favourable geostrategic location with a well-developed transport network • Good infrastructure coverage and availability of energy sources • Existing natural resources are a good raw material basis for the development of the manufacturing industry • Existing facilities and sites offered to investors under favourable conditions • Preserved and diverse natural resources, unpolluted environment and no significant environmental polluters • Proximity and availability of raw material • Availability of diverse and skilled labour • Development supported by legislation and economic development incentive programmes • Good institutional support for economic development provided by the County • Industrial wood-processing tradition • Adopted national and/or international quality standards • Export orientation 	<ul style="list-style-type: none"> • Long procedure for obtaining a building permit for individual investments • Long and expensive procedure for amending physical plans is a limiting factor for the development of infrastructure • Inadequate capacity of the existing electricity grid • Lack of sewerage system • Poor broadband internet coverage • Obtaining the right of ownership, management and use of natural resources • Excessive fiscal burden on entrepreneurs • Trade accounts for a large portion of economic activity • Weak vertical, horizontal and cross-sectoral coordination of production • Insufficient application of new technologies and innovations • Low level of foreign direct investments • Low level of competitiveness • Inadequate technical support to small and medium-sized enterprises
OPPORTUNITIES	THREATS
<ul style="list-style-type: none"> • Reduction of administrative barriers • Construction of the Danube - Sava Channel and development of ports on the Danube and Sava rivers • Mine clearing • Accession to the European Union and access to EU funds • Proximity of the EU market and Southeast Europe • Government programmes to foster the development of underdeveloped regions • Incentives and programmes at the national level 	<ul style="list-style-type: none"> • Uncompetitiveness of local partners • Inability to dispose of local natural resources • Increased international competition • Inadequate development of entrepreneurship support and development institutions • Inadequate support for the development of the County by the central government • Revoking of current privileges

Source: prepared by the author according to the Vukovar-Sirmium County Development Agency, SWOT analysis template

Based on the SWOT analysis results and cluster member business performance data, it was concluded that the underlying problem for the operation of the cluster is the weakness of cluster members. For example, Spačva d.d., a member of the cluster and the largest business entity that should be the driver of development and cooperation, is awaiting pre-bankruptcy settlement and has been in financial difficulties since 2009. As cluster members are not competitive, they cannot significantly improve the competitiveness of the County. Vukovar-Sirmium County is among ten least competitive counties and thus has the lowest development index (below 75% of the average in the Republic of Croatia). This suggests that their non-competitiveness is the cause of their

underdevelopment (Singer et al., 2011, p. 22). It is important to note that according to the 2009 data, the wood industry sector of the Vukovar-Sirmium County accounted for 0.1% of the Croatian GDP, and 0.08% of the total employment rate in the Republic of Croatia, i.e., 2.6% of the total employment rate in the County.³⁸ The data has not changed significantly since then. Although the solution, which could help achieve a competitive advantage both at the level of business entities and at the regional level through connecting with related industries, was found, there is still a large gap between what the cluster should be and what it actually is. The contribution of the cluster, as a new global model for development of business entities, to the development of small businesses is extremely high, especially in countries where there are measures and programmes in place aimed at development of small enterprises, which are becoming increasingly important for a dynamic economic development and growth of a country (Horvat et al., 2004, p. 7). It is expected that in the coming decade the battle for market dominance will be fought between business clusters, consumers, suppliers, and other private and public participants rather than between individual business entities. Therefore, one of the goals of creating a cluster is to link technologies, manufacturing and small businesses of two regions or several regions from several countries within their core activities. In this way, business entities and regions are developed using the communications, technologies and investments from other regions. This is an additional reason to evaluate the possibilities and limitations of cluster formation in the Republic of Croatia with an aim to establish a new economic development concept (Horvat et al., 2004, p. 9).

4. Conclusion

A business cluster is a form of strategic association, i.e., a group of companies or associations of manufacturers carrying in a field, including producers of raw materials, governmental and non-governmental organizations, as well as research and education institutions that solve problems they have in common thus improving their business performance in a particular segment of the industry, become highly competitive and successful in the country and abroad. The main objective of clustering is to increase the competitiveness of individual companies in a cluster, and thus the competitiveness of the cluster as a whole. It is important for business entities to join a cluster, i.e., group by their common activity or by several similar activities, because of the need to adjust to the global market, define an organisational structure that will allow them to develop and carry out trading and marketing activities in one region or in several closely linked regions. Currently, regions and regional companies are increasingly facing challenges in the global market. The competitiveness of a region does no longer depend solely on individual companies, but more and more on innovative practices of entire industries and sectors. For this reason, regional competitiveness has become of central importance in developing economic and technological policies of the European Union, as well as its Member States. Potential benefits from cluster initiatives for companies and regions are an additional motivation to the governments and other public actors to support cluster policies. Generally speaking, a well-developed clustering of connected activities increases productivity, drives innovative processes and creates new businesses. The results of numerous studies and performance analyses show that the growth rate of partners in a cluster is higher than that of businesses which have not joined a cluster. Unfortunately, this is not always the case. The analyzed Vukovar-Sirmium County wood industry cluster faces a number of threats and weaknesses in its operation. Cluster members have come together to join their efforts and achieve mutual goals. Their poor performance is primarily the result of the fact that its members are not competitive and are facing a number of financial problems. In order to become successful, this cluster needs to increase the number of its members, adopt a policy preventing mutual competition, carry out market research and product branding as there is a long tradition in wood processing, invest in marketing and attracting investments, participate in a range of projects,

³⁸ Internal document belonging to the Vukovar-Sirmium County wood industry cluster – 2011 Plan and Programme

and educate and train its employees. More attention should be paid to cluster management policy so that the observed cluster could make headway during its life cycle.

REFERENCES

- Barilović, Z. et al.: *Klasteri kao mogućnost gospodarskog razvoja*, http://www.famns.edu.rs/skup1/radovi_pdf/barilovic_funda.pdf (accessed 12 March 2013)
- Breschi, S. et al. (2005): *Clusters, Networks and Innovation*, Oxford University Press, New York
- Delgado, M. et al. (2010): *Clusters and entrepreneurship*, Journal of Economic Geography, Vol. 10, pp. 495-518.
- Drveni klaster Vukovarsko-srijemske županije, <http://drvni-klaster-vsz.com/index.php?link=2> (accessed 12 February 2013)
- Erkapić, Ž.: *Klasteri kao oblik udruživanja i organiziranja gospodarskih subjekata*, http://oliver.efos.hr/razvoj/docs/Klasteri_Erkapic.ppt (accessed 12 February 2013)
- Horvat, Đ., Kovačević, V. (2004): *Clusteri – put do konkurentnosti*, Cera Prom i M.E.P. Consult, Zagreb
- Internal document belonging to the Vukovar-Sirmium County wood industry cluster - 2012/2013 Plan and Programme
- Internal document belonging to the Vukovar-Sirmium County wood industry cluster - 2011 Plan and Programme
- Singer, S. (2011): *Regionalni indeks konkurentnosti Hrvatske 2010*, p. 22, www.konkurentnost.hr/lgs.axd?t=16&id=312, (accessed 20 February 2013)
- Tijanić, L. (2009): *Politika Europske Unije u formiranju klastera*, Ekonomska istraživanja, Vol. 22, No. 1, pp. 149-167.
- Tsuji, M. et al. (2010): *From Agglomeration to Innovation: Upgrading Industrial Clusters in Emerging Economies*, Institute of Developing Economies IDE-Jetro, New York