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Clusters and Competitive Ability of Small and Medium Enterprises in the Textile and Clothing Industry: Serbian Economy Review

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Abstrac

The merging of companies is becoming a new way of acquiring a competition advantage on the international market. Small and medium enterprises (SMEs) are generators of economic development in every market economy. Management in small and medium companies is somehow specific because of the fact that SMEs conduct their business activities in a state of resource deficiency. The managing of small and medium companies is often done in conditions of limited resources. One of the ways of overcoming this problem is getting businessmen to perform more successfully on the market. Clusters present an important element in the process of competition enhancement, productivity and the development of small and medium companies. This is especially important for countries in transition, whose companies may become competitive on a global scale, if only they can become a part of it. It especially refers to textile industry companies which have had problems with competitive ability on the domestic market for many years.

Key words: cluster, competitiveness, SMEs, textile and clothing industry.

in modern business. Big organisations burdened with an oversized and unproductive administration are becoming out of date. Small, especially medium-sized organisations are serious global competitors nowadays. Small and medium-sized companies have market and technological flexibility, and their development is based on improving knowledge productivity and innovations.

Reducing the average size of companies affects the existence of different forms of connecting and cooperation among companies which are active on the international market in order to achieve synergy effects. The advantages of connecting SMEs in business associations and partnership groups are as follows: achieving a synergy effect on the international market; the problem of poor resources can be overcome; expenditure on activities on the international market and the total expenses are considerably lower; providing conditions for the extended use of modern management techniques; the tempo of the internationalisation of business is much faster, and there is a further possibility for expansion [7, p. 178].

Forms and characteristics of merging small and medium enterprises (SMEs) in clusters

Clusters represent a very important form of merging SMEs. They showed their effectiveness during the 80s and 90s with respect to the development of high technologies (Silicon Valley, for example). The basic objectives of the work of clusters are as follows: the permanent professional training of employees, knowl-

edge innovations and implementation of modern techniques of management, the standardisation of business, creating a successful trade mark, providing consultation services to entrepreneurs, potential entrepreneurs and employers, as well as approaches to equipment and business property, the organisation of different events/seminars in the sphere of achieving entrepreneurial skills, the organisation of work by mentors to achieve knowledge and work experience (especially of the young), connections with state administrations at a local, regional and central level (with respect to the development of private entrepreneurship and competitiveness), connecting entrepreneurs with foreign partners, big companies, subnational organisations, international donors, and funds that finance the development of civil society (education, development of specific knowledge, specialization, etc.).

Clusters represent geographically (most often regionally) bound concentrations of similar or complementary busnesses with active channels for business transactions, communications and cooperation, and they may be one of the possible answers to the process of globalism and uneven regional development and growth. In European countries and the USA there are whole regions with economies consisting of small and medium-sized companies (Italy: Venice, Venice Giulia, and Emilia Romana; Germany: Baden Vitenberg and Bavaria; the USA: California). These regions have developed more than the average of their national economies.

Introduction

Merging companies into partnerships and strategic alliances is becoming a more and more common way of market presentation. Companies merge in order to achieve an advantage on the global market. According to Drucker [5, p. 24], a dominant trend is that companies are integrated into the world economy through business associations for the reason that many medium and small companies will have to become active within the framework of the world economy.

On the other hand, the trend of reducing the average size of companies is noticeable. Riderstrale and Nordstrom think that a modern organisation should be founded on the following seven principles: small, flat, temporary, horizontal, circular, open and measured [11, p. 195]. A new organisation should be small in order to have more space for action. The small size enables market and technological flexibility, which directly affects its competitive ability on the market. The size of the company represents a crucial factor for achieving a competitive advantage

There are, in practice, some examples of cross-border regional clusters which provide conditions for connecting companies from several countries. However, to make long-lasting strategies, regional integration is necessary, assuming certain obstacles have been overcome by the countries - the creators of the clusters. These obstacles are social services, environmental plans, education and research, tax policy, civil constuction, logistics, infrastructure, cultural identity and industrial policy. Some examples of cross-border regional clusters are:

- Glass cluster Upper Austria (Austria), Bavaria (Germany) and Bohemia (Czech Republic);
- Textile cluster Lower Austria (Austria) and Bohemia (Czech Republic);
- Regional cluster and the network in the plastic-technological, bio-medical and metal-processing sectors – Region Tvente on the Dutch-German border;
- The Öresund region in Denmark and Sweden, including the Medicon Valley, contains a considerable number of pharmaceutical and bio-technological companies, universities and university hospitals.
- Bio-valley is located in the region of Upper Rhina, including three regions: north-western Switzerland, South Baden (Germany) and Alscace, (France) and it is the European centre for bio-technology [12, p. 174].

In some countries of the European Union (EU) development of regional clusters, there is a new kind of industrial policy, while in others, such as Portugal, Denmark and Great Britain, there is an initiative for making a map of clusters and a cluster policy. In its basic meaning a cluster policy represents the stimulative linking of a local business environment through public-private dialogue, defined by common research of needs as well as co-development between contractors and suppliers. Two cluster policies can be distinguished:

- Support for the development of an existing cluster or that which should become a regional cluster;
- Spreading knowledge about industrial development in regional clusters, especially with respect to information that is important for creating general policy.

Finland is a country with a great number of agencies and state institutions included in its cluster policy – they are ranked

from technological and research agencies to numerous special spheres in Ministries, such as transport and communication (telecom cluster, transport cluster), agriculture and forestry (food cluster, wood cluster), social work and health, ecology (ecology cluster) and labour (development of labour).

Establishing clusters is not only encouragement with respect to technology or the competitive advantage of SMEs, but it is a social fact as well.

Analysing the organisation of clusters in different countries can highlight different ways of connecting and associating entrepreneurs. A considerable number of clusters started operating on the grounds of a simple agreement concerning common work and researching possibilities for cooperation among cluster members during the first year. In other words, at the very beginning, agreements about common activities and cooperation are more important than defining a concrete structure for providing financial means. Together with the development of a market economy and business as well asexpansion into foreign markets, clusters are being transformed towards establishing professional associations or towards making consortiums. From experience, it can be said that there are several ways of making clusters:

- Contract or agreement about the common activities of companies i.e. cluster members;
- 2. Establishing an economic association of entrepreneurs from a certain sphere, the founders of which are owners of companies, being the cluster members;
- 3. Making a consortium by signing a contract, which is a result of business practice.

No matter which of these organisational forms is chosen, it is necessary to understand that it will change over time as the cluster becomes more successful on the market. The essence is in the following – the form should follow the cluster function and make it possible to achieve the development objectives of the cluster.

Clusters and development of the competitive abilities of smes in serbia

The SME sector has a very important role in the development of the Serbian economy. The majority of companies on the Serbian market belong to the group of small and medium companies (MSP), according to official information. Therefore, small and medium companies comprise 99.8% of the total number of companies, 65.5% of employment, 67.6% of the turnover, and about 36% of the gross national product. In the total export, SMEs comprise 50.2%, 64% of imports, and 51.2% of investments in the non-financial sector. Micro companies are dominant in the SME sector with 95.6% of the total number, employing almost 50% of the total number of those employed [2].

The Serbian Government has adopted a strategy for developing the competitiveness and innovations of SMEs in the period 2008 - 2013, wishing to contribute to the further strengthening and efficient use of the SME sector's potential, which should have positive effects on the economic growth of the country. Such an orientation should contribute to an increase in competitiveness and export, further strengthening the innovative capacities of companies, and leading to dynamic employment development and even more regional development.

On the other hand, a considerable number of domestic companies is still not ready to enter the international market and compete freely with foreign companies. The reason for this can be found in the fact that free market competition is not developed enough in Serbia. Some old characteristics are the remaining obstacles in the development of the international business behaviour of certain domestic businessmen, among which the following stand out: insufficient orientation of production towards export, the unsynhronised performance of domestic companies, inappropriate implementation of modern principles in managing companies, and the improper adoption of a marketing concept and its use in international business.

Increasing the competitiveness of domestic companies is possible under the following pre-conditions: finishing the process of privatisation, the development of SMEs, the permanent improvement of the knowledge of entrepreneurs, the implementation of new technologies, and attracting direct foreign investments.

The privatisation and liberalisation of economic relations represent key factors for the development of private initiative and private property. The development of the SME sector is very important for privatisation because it enables its acceleration – it is the autochthonous private sector which enables the development of domestic private capital. The opening of the national economy to international economic trends represents a pre-condition for successful involvement in the global economy.

Improving the competitiveness of SMEs assumes the active application of knowledge, increasing knowledge productivity, as well as the use of modern management techniques. In order to achieve appropriate performance on the international market, the SME sector should accept the experiences of developed countries, which represents the most important factor of internationalisation in relation to SMEs.

What makes SMEs, especially those belonging to the group of micro companies, specific are limited business resources, which is also the basic feature of managing and organising an SME structure. In other words, there is a small number of employees who perform many functions in the company (it is not rare that the owner performs several functions), some of which are dislocated. As a final result, this concept presumes that making associations or alliances represents a necessity and market reality, especially if we consider successful performance on the international market. The advantages are as follows: achieving a sinergy effect, overcoming the problem of poor resources, a dramatic decrease in costs in relation to servicing the market and, therefore, the business in general, making conditions for wider implementation of modern management techniques, and the tempo of business internationalisation is much faster, which goes hand in hand with the possibility of further market gains [6].

The strategy for developing the competitiveness and innovations of SMEs mentioned, positions clusters as one of the instruments for increasing competitive advantage on foreign markets. There are currently 22 clusters in Serbia. In 2008, 14 of them were given financial aid from the state – the Ministry for Economy and Regional Development provided 52 million dinars (about 520.000 EUR) of grant aid for the estabilishment and development of clusters. About 310.000 EUR was budget funds, and the rest was a donation from Norway [1]. Four out

of the 14 clusters were in the process of estabilishing a medical tourism cluster, a tourism cluster (Srem region), an association for the development of business and manifestation of tourism, and a computer cluster. Only two out of the 22 clusters are national – the car industry cluster and wood cluster, while the remaining 19 clusters are regional. Clusters are organised as associations of citizens. Apart from those mentioned, some other clusters should be noted - The cluster of agriculture machinery producers (Vojvodina), the cluster of footwear producers (Zajecar region), the civil building cluster (Nis-Toplice region), the tourism cluster (Rasina region), The cluster for processing fruit, the alcoholic and nonalcoholic drinks cluster (Jablanica-Pčinja region), etc.

There are more clusters in neighbouring countries than in Serbia. In Croatia, there are 44 clusters, in Hungary 48, in Bulgaria 50, and in Italy 213 clusters are registered [1].

Textile and clothing industry in Serbia – transition of SMEs into a cluster organisation

The Serbian textile industry with its considerable production capacities was once an important factor in industrial production. Before 1991, the textile industry comprised 11% of the gross national income, 20% of exports, with a positive balance of 450 million dollars, and 16% of employment, [4].

Then the textile factories, which were organised in big systems, fell into crisis, which brought redundancy, reduced sales volume, problems with the supply of raw materials because of an embargo, prohibited export and, therefore, the impossible supply of new technologies that neighbouring countries had already bought and used in order to increase their competitive advantage. During the 90s, a great number of workers were lost in different social programs, and the textile industry fell apart. However, the structure of textile companies in Serbia has changed recently within the process of privatisation and adjustment of non-flexible, big organisations to new market requirements. The manufacturing of yarns and cloth has become secondary. The clothing or textile clothing industry now appears in the form of small and medium companies

which are taking the leading position and becoming more in demand.

The difficult conditions that the textile industry has faced in the last decade have caused employment to decrease, both in manufacturing cloths and yarns and in the production of clothes. However, if these negative trends, which have lasted since 1989, continue, the number of workers can fall to only 15 - 20,000 [8]. The manufacturing of textile and leather products as well as other goods made in the sphere of textile takes place (according to data from 2009 [10]) in 1947 companies, which represents less than 2% of the total number of companies, and according to data from the Union of employers in Serbia [3], the textile sector employed 59,500 workers at the beginning of 2009.

The textile industry is an industrial branch that is mostly crises-ridden, with minimum working capital and average earnings at the level of the minimum salary in Serbia. Even before the economic crisis this sector had the least average net earnings in Serbia as well as certain difficulties because of unfair competition, which means that the grey economy in the textile sector amounts to 44% at the level of the whole Republic and 50.5% of the total turnover in the south (see [4]).

The participation of the textile and clothing industry in the export of the manufacturing industry is 6%, and in imports it is 5%. In the export structure, socks and tights are mostly represented, then clothes, men's suits, underwear, carpets, rugs, textile yarns, etc. In the import structure socks and tights are mostly represented, followed by textile yarns, denim, cotton fibres, underwear, clothes, etc.

The textile and clothing industry exported goods worth 445.3 million dollars in the period from January to December 2009, which represents a decrease of nearly 2% in comparison to the same period the year before. Import was 560.1 million dollars, which represented a 28% decrease [10].

The experts think that this branch still has the power to overcome accumulated debts and technological delay and regain markets lost during the embargo. The way out must be found in the faster inclusion of small and medium companies in the economic flux and in encouraging their faster development. The experienc-

es of neighbouring countries which have succeeded in including such companies in the production of different goods, especially in small series, in a short period of time can be a good example. It is obvious that for the fast and quality development of SMEs in the sphere of textiles, considerable financial means are not necessary. It is necessary, above all, to improve the ambience of business, together with changing regulations and using the existing resources, infrastructure, people, institutions and markets.

A considerable part of the textile and clothing industry in Serbia is made up of small and medium companies (SMEs). These companies are mainly private, which makes good preconditions for a successful market peformance. Small and medium companies use strategic merging into clusters in order to improve their competitive advantage. By organising themselves into clusters, SMEs are trying to compensate for the lack of human resources, financial means, raw materials, new knowledge, technologies, etc. However, the state has an essential role in organising clusters because their future will be insecure without the support of the state. Its task is to create regulations that are stimulative, to reduce taxes and to help institutionally in every way. At the same time, taking into account the development of the regions within the country, clusters should be included in the concrete economic policy of the country.

The development of cluster models at a local level within the national economy represents an important impulse for the overall and intensive development of the SME sector and private capital, as well as productive employment, especially in the sphere of the textile and clothing industry. The development of cluster models is included in the efforts of the EU, the aim of which is to strenghten local develpoment and increase economic growth at a local level together with faster integration of potential members of the EU. The development of regional clusters within the West Balkans would enable companies from that region to achieve considerable competitive advantage in relation to other companies in Europe.

Cooperation between producers at a local and international level is becoming a more common tendency in the sphere of the textile industry. There are different forms of associations, such as clusters, regional associations, associations of producers from neighbouring countries, etc. The aim is to perform common activities (market research, common supplies, exhibitions at fairs and so on), exchange experiences and skills, conduct common research – development activities, etc.

Making clusters in the textile industry in Serbia is of special strategic importance for the development of the Serbian economy. Until now, there have been some kinds of associations-clusters in the textile and clothing industry, whose aim was gathering experts from this field:

- Cluster of the clothing industry for the region of South Banat, with its headquarters in Pancevo;
- Cluster of the textile and clothing industry in Novi Pazar – "Assotex"-association of textile workers (its former name was the Union of producers of textiles and footwear),
- Textile cluster of the Nis district,
- Union of producers of textile, leather and footwear "ADA" in Ada and
- General association of entrepreneurs in Arilje, section Arilje textile [4, 9].

All the clusters-associations established are in the initial phase of organising, and they do not have a legal form, except "Asotex", which is in the first ("legal") phase. According to cluster members, the greatest number of members are in the cluster of the textile and clothing industry in Novi Pazar, which numbers 65 members, then the Textile cluster in Nis district with 50 members, next the Association of Arilje textile with 47, and finally the Union of producers of textile 'Ada' with 25 members, [8]. The main activities of the textile associatons-clusters organised in Serbia are as follows:

- 1. Professional training through cooperation with secondary textile schools, colleges and faculties which educate students for work in the textile industry.
- 2. Successful cooperation with the national office for employment,
- 3. Coperation with regional chambers of commerce of the Republic of Serbia,
- Visiting international fairs, collective appearance at international fairs in Dusseldorf and Moscow, collective appearances at fairs in Belgrade or establishing fairs (for example, Textile fair in Novi Pazar),
- Exchange of information representing common interests, relations with the state administration,

 Cooperative relations in "lohn" jobs and help in the labour force, means of work, etc.

Although the majority of textile clusters in Serbia still do not have a legal form, they are organised by groups of citizens or associations whose aim is increasing the profit of cluster members. Clusters are established by signing a memorandum representing an understanding between cluster members, which concerns the organisational structure; they consist of an assembly, management board, professional bodies and the president. The organisers of the clusters are textile companies-leaders in the textile industry in Serbia. Clusters are open to admit new members - production and trade companies, as well as shops, educational-research institutions, sector associations and offices of business support. By strengthening the network of cluster members, they are trying to achieve better competitiveness and profit, to create their own brand on the European market and to transfer knowledge, techniques and technologies.

Conclusion

Clusters represent a very important element in the process of improving the competitiveness of SMEs. Successful clusters give small and medium companies the following advantages: better access to new skills and knowledge, common services, support in partnership, branding, developing marketing strategies, common work on innovations, more efficient implementation of QMS, as well as co-financing from private and other companies and persons.

SMEs in the textile industry have found a solution to their problems by strategically associating in clusters, which both global and regional analyses confirm. Croatia has a certain advantage compared to Serbia when it comes to clusters. There are at least three serious clusters in the field of textile, clothing and footwear; the organisation within these clusters is more consistent, small and big clusters alike, etc. In Serbia, a textile industry cluster has been established but its activities should be considerably improved if the organisers want to achieve the effects expected. There are several associations that mostly have an illegal form, hence their functioning is inconsistent. The state has supported cluster organisation through its Strategy, but it is necessary to increase the number of companies and institutions that collaborate within this framework, which is related to the better representation of all kinds of textile products and to the participation of all entities connected to the activities of the textile industry (universities, selling chains, etc.). In conclusion, clusters represent the future of the Serbial textile and clothing industry, but this future is, to a great extent, insecure and undetermined.

References

- With clusters in the hunt for markets, (in Serbian) Novac, 04.10.2008., Ringier, Belgrade, p. 11.
- Development strategy of competitiveness and innovativeness of SMEs for the period 2008-2013, (in Serbian) Official Gazette (Službeni Glasnik) RS, br. 55/05, 71/05- correction, 101/07 & 65/08, Belgrade 2008.
- 3. Rescue textile industry, (in Serbian) Poslovni magazin, 14.03.2009. Novi Sad www.poslovnimagazin.biz/vesti/ spasavanje-tekstilne-industrije-1-4270 (last visited 13.06.2010).
- Branković A., Grujić D., Momčilović J., Savčić R.; Textile Industry of Serbia 2006, (in Serbian) http://qmis.info/LinkClick.asp x?fileticket=jB5b7T1FB1c%3D&tabid=36 6&mid=4057&language=sr-Cyrl-CS (last visited 13.06.2010).
- Drucker P.; Menadžment za budućnost, (in Serbian) PS Grmeč-Privredni pregled, Belgrade 1996.
- Đorđević D., Anđelković M., Bogetić, S. (2002): Association of SMEs - a chance for a successful business internationalization, (in Serbian) New Deal, New deal International, Novi Sad.
- Đorđević D., Ćoćkalo D.; Osnove marketinga 2004, (in Serbian) University of Novi Sad, Technical faculty "Mihajlo Pupin" in Zrenjanin.
- Đorđević D., Urošević S., Cvijanović J., The role of clusters in improving the competitiveness of textile industry in Serbia, (in Serbian) In Industrija, Vol 38, No 2, 2010, pp. 177-198.
- http://klasteri.merr.gov.rs/Klasteri-u-Srbiji (last visited 13.06.2010).
- http://www.pks.rs/PrivredauSrbiji/Tekstiliko%C5%BEa/tabid/1873/language/ sr-Latn-CS/Default.aspx (last visited 13.06.2010).
- 11. Riderstrale J., Nordstrom K.; Funky Business, (in Serbian) Plato, Belgrade (2004).
- Sajfert Z., Đorđević D., Bešić C.; Menadžment trendovi 2006 (in Serbian) University of Novi Sad, Technical faculty "Mihajlo Pupin" in Zrenjanin.
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