

CLUSTERS – A NEW FORM OF REGIONS DEVELOPMENT IN SLOVAKIA

Darina CHLEBÍKOVÁ
Janka MRÁZIKOVÁ

Economics Department, Zilina university
Zilina, Slovakia
darina.chlebikova@fpedas.utc.sk
janka.mrazikova@fpedas.uniza.sk

Abstract

A new form of regions` development is based on development of territorial entity and utilization of specific region unique in order to underline region positives and create maximum work opportunities. These forms include parks and clusters. They are factors of productivity and competetiveness increase on the national and international scale. The effects are not permanent. In 2008 Slovak Republic signed an international treaty with other countries of the Middle and Eastern Europe regarding corporate strategies and future innovative goals and clusters politics.

Keywords: globalization, clusters, region, small and medium enterprises, competitiveness, economic development, small and medium companies support

1. Introduction

In a global world small and medium enterprises must constantly compete more and more with an international competition. As much as 99 percent of European businesses are formed by small and medium enterprises. Despite mentioned number these companies receive only 12 percent of state assistance that is assigned to the business sector. Most of the export belongs to a small number of bigger national companies. However small and medium enterprises have the main input on development and innovations in all segments, therefore it is necessary to grant them higher support and help them to be more competitive.

There is a need of „stronger policy“ for small and medium enterprises in European Union that will form new work positions and stimulate economic growth as well as it will help to face globalization, energetic and environmental challenges. New options must be seek in modern methods of financing new established small and medium enterprises that are focus on regulation and administrative decrease, because their cost is too high compare to bigger companies. In big enterprises administrative duties are in average one Euro on per one employee and in small enterprises it could be as much as ten Euro. Small and medium enterprises need a forceful help to access international activities. Only a share of 30

percent of small and medium enterprises is making a business behind national borders – whether on domestic or international market.

In the first phase of globalization a competitive advantage was globalism itself and a company ability to activate and mobilize inputs and assets exceeding country borders. A company size used to be important. At the present time a company could be smaller but more important is to be surrounded by sufficient, reliable suppliers, supporting companies and institutions. This progress of globalization puts constantly a higher emphasis on specialization and on particular issues and on operation in the most suitable area that is better for relevant business. Each locality, each country booms in other areas, in which they could reach a unique specialization and critical amount. Therefore a traditional understanding of competition is has changed. On a neutral formed target market it is not possible state precisely and define clearly branch limits and thus not even limits regarding company suppliers, customers, competitors and co-operators. The future is more or less created by competing about the opportunities share than about the market share. Appropriate aggregations are constantly gaining greater significance, the size of their network and infrastructure. For better understanding a term “cluster” is used.

2. Definitions of clusters

This term was used for the first time as a concept of regional economy in 1920 (Marshall). There are many definitions of clusters and most of them contain some resembling features. For comparison we are mentioning following:

- cluster is an aggregation of comparative companies performing in an industrial area in a scheme of competitive and cooperative correlation. (Piore a Sable, 1984)
- cluster is a group of producers that are founded close to each other and forming similar products (Schmitz, 1994)
- cluster is a group of interconnected companies and institutions in a specific (industrial) area and in a specific locality (Porter, 1998)

Very often clusters are expended down toward market places and customers and producers of complementary products, companies in industrial segments that are collateral in terms of capability, technologies or joint inputs. There is a need to collaborate with government and other institutions while participating in research and development programs. These institutions are universities, normative agencies, research teams or business associations.

Within the scope of OECD clusters are defined as close depended companies networks and institutions producing knowledge that unite institutions and customers which are linked into production chain that form an added value.

Following analysis of region clusters in Europe, the European Union defined clusters as a group of independent companies and associated institutions that:

- are locally concentrated in one or more regions,
- are specified in a particular area characterised by similar technologies and abilities,
- cooperate and compete by innovations,
- are knowledgeable or traditional.

The main goals of cluster establishing are:

- access to specified supporting services in demand,
- development of cooperation with other local or international suppliers (global dimension),
- expansion of research and development cooperation among member companies, universities and research institutions,
- a quality, industrial orientated education and training support,
- marketing and finance support primarily of small and medium enterprises,
- to boost competitiveness of concerned corporations,
- economic region development,
- number of innovations increase,
- export increase,
- support of new companies forming etc.

The structure of efficient clusters is formed by:

- core that is formed by the key companies. All participants whose incomings are from customers outside the cluster are included.
- supportive organisations – directly or indirectly support companies in the core of cluster (specialized suppliers, banks, lawyers, recruiting agencies, freighters and etc.)
- mild supportive infrastructure – it is defined by broad commitment of local community (local schools, universities, business and professional associations, unions, agencies for economic development and etc.)
- severe supportive infrastructure – a technical infrastructure (on road, railway and highway communications, harbours, waste management, sewer system, intercourse connections etc.)

3. Typology of clusters

Typology of clusters:

- vertical production chain – the basis are consequential stages of production chain and strategic chain forming mainly with bigger companies in the same business domain and in all different professions.
- horizontal production chain - clusters are build among producers in the same business domain in order to achieved better purchase prizes of material, selling opportunities and clustering externally,
- lateral production chain – the lateral network of the whole company chain is meant and is complemented, adjusted and the final output is created,
- aggregation of connected sectors – the basis are four levels of close related segments or company groups (final products production, production devices, specific production inputs a consequential products` services),
- regional cluster – it is interconnected segments` aggregation within one particular region and world market competitiveness,
- industrial district – it is a concentration of small and medium enterprises that form industrial districts and are depending on big companies,
- networks – it is a network formed by specific relationships and correlations among economic subjects that do not need to be concentrated from the geographical point of view,
- innovation milieu – it is an innovative environment that accelerate knowledge spreading of latest technologies that are formed by high – tech segments concentration and institutional factors.

Another clusters` typology:

- clusters set up on a value chain that is defined by suppliers linked network (e.g. automotive cluster – it is formed by car producers and their suppliers that might be connected with electronics, plastic, rubber, fabric and so on producers),
- clusters are set up on authorities – in this type of clusters the application of knowledge and expertise is important and not suppliers` connections within the frame of one segment (e.g. IT that geographical concentration is evidential however application and clients are various).

4. Advantages and disadvantages of clusters

Advantages of clusters:

- products and companies demand increase within a cluster,

- qualification labour force increase,
- company technological capacity improvement,
- suppliers specialization increase,
- local and global markets access approaching,
- cost decrease,
- reclassification and regional economic development,
- extension of cooperation among companies in market share segment, new products development and so on,
- more effective utilization of regional communal resource,

Disadvantages of clusters:

- dependence on big companies,
- dependence on communal resources and intervention.

Clusters contributions are mainly in competitiveness and efficiency enhancement, mostly in labour productivity increase upon better access to the suppliers, abilities and information, higher emphasis for innovations as well as spontaneous cluster spreading in consequence of new companies forming.

Successful clusters offer this and other contributions to the concerned companies:

- cost decrease and cost saving – it is important to achieve critical amount in key areas, to open new markets,
- specification increase and smaller companies restriction decrease,
- global competitiveness strengthening that is followed by local – competitiveness among companies is created first of all by innovations,
- mainly small companies increase their force and are able to influence events regarding business activities,
- the government is incited to new infrastructure investments (education and training centres, technological institutes, research and development centres etc.),
- effective interconnection and consulting and communication ability without being a rival,
- information and technologies flow speed increase.

4. Development of clusters in Slovakia

An international treaty was signed with Central and Eastern European countries in November 2007 in Brussels about common strategies and future innovative goals and clusters politics. Eight countries, 12 partners and 50 regions are part of this project. This initiative is focused on another form of help and also on possibilities to be a part of innovative projects among particular countries and their cooperation.

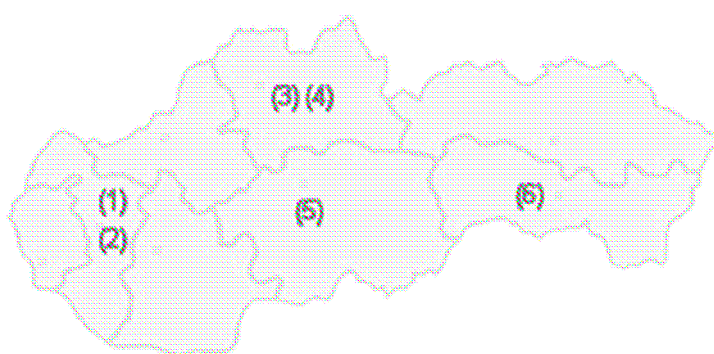
The automotive cluster in Trnava region was launched as the pilot project in Slovakia involving the whole region of western Slovakia. There is a close cooperation with Wien region cluster and also utilization of experience from other cluster international. A car industry is an industrial segment that integrates other industrial segments (metal, plastic and fabric production) into final product creation and creates possibilities for suppliers too.

Another clusters development in Slovakia is supported by the „Innovative strategy for the years 2007 – 2013” (2007), regional innovative strategies and another initiatives and politics that classified clusters as an important tool for sustainable development, increase in region increase and an innovative potential of small and medium enterprises.

A part of innovative strategy for the years 2007 – 2013 in order proceeding „ Innovative Environment Support“ is clusters` development that will formed conditions for business segment and universities, innovative centres in particular industrial segments and services cooperation following the development in regions.

At the same time there were determined innovative growth points – innovative development areas for specific regions and municipalities in Slovakia. Projects in accordance with the innovative strategy for Slovakia are proffered and supported by public finance [3].

From the financial point of view clusters are even supported by EU. While using the finance from structural and other funds of EU the amount of co-financing is 5% of the whole demanded finance grant. The current situation, present and future clusters in Slovakia:



Present clusters

1. Automotive cluster – Western Slovakia
2. Electronic cluster – Western Slovakia
3. Z@ICT Cluster – Žilina
4. Cluster Liptov

Future clusters:

- (1). Machine and timber cluster – Banský Bystrica
- (2). IT Cluster Košice

Present clusters in Slovakia:

- (1). Automotive cluster – Western Slovakia, Trnava municipality.
Automotive industry.
- (2). Electronic cluster – Western Slovakia, Trnava municipality.
Electrical engineering.
- (3). Liptov cluster – Žilina municipality. Tourist trade
- (4). Z@ICT Cluster – Žilina, Žilina municipality. Information and communication technologies.

Future clusters in Slovakia:

- (5) Machine and timber cluster – Banský Bystrica municipality. Machina and timber industry.
Automotive industry.
- (6) IT Cluster Košice – Košice municipality. Informational technologies.

The main components are public institutions such as municipalities, towns and public universities. The other components are research and development centres, educational institutions, companies and other associations. The clusters` activities are divided according to specific segment needs.

Besides mentioned access to the public funds, clusters insure also:

- easier information access and contracts in a given segment,
- effective purchase and utilization of shipping means and hi-tech technologies,
- a possibility of educational plans influence regarding training institutions and schools,
- proexport, marketing and educational activities.

To form a cluster in Slovakia in order to use public funds following two requirements should be meet:

- cluster is formed by public institutions,
- cluster operating is not in contravention of development documents.

It is recommended, if it is possible and corresponds with cluster activities, to cooperate with the Slovak Academy of Science. A possibility of funds withdrawing from structural and other grants is secured. These funds support clusters` establishing and operating as it was mention in the chapel "Public clusters financing". A cluster focus should not be in contravention of development documents of Slovakia, regional development documents and Innovative Strategy of Slovakia for years 2007 – 2013

(2007) and regional innovative strategies that are in many cases a part of economic plans of individual regions.

By experience, it is very important while clusters forming to processed other activities:

- present situation analysis of the future cluster operating,
- survey of needs and knowledge in a business community,
- leaders identification and consensus formation,
- cooperation establishing with universities and other educational institutions in all different regions,
- cooperation establishing with universities and other educational institutions international,
- preparation of official documents. ¹

5. Conclusion

Clusters require interference between enterprises and public institutions as well as different strategies coordination in order to dynamics increase within their local economics. The support of local innovative centres in combination with another clusters development should form convenient conditions for businessmen attended to small and medium enterprises, but also help to transfer knowledge and techniques from other countries and regions of Europe. In accordance to respect all different country conditions clusters are formed by various proceeding.

ACKNOWLEDGEMENT

This article was created with the support of the Slovak grant agency VEGA MŠ SR, grant No. 1/4565/07 Competitiveness assurance of small and medium enterprises in Slovak Republic in the setting of economic globalization and institutional development 4/KE/09 „Strategic partnership as the factor of competitiveness ability development of small and medium enterprises“.

REFERENCES

- An innovative strategy for 2007 – 2013 in Slovakia Ministry of Economy of the Slovak Republic (2007), Government decree No. 265/2007
- Marshall, A. (1920). *Principles of Economics*. Macmillan, London
- Piore, M. & Sable, C. (1984). *The second industrial divide. Possibilities for prosperity*. Basic Books,.New York

¹ www.nanosvet.sk

Porter, M. (1998). *On competition Boston: Harvard Business School Press*

Schmitz, H. (1994). *Industrial Clusters in Less Developed Countries Review of Experiences and Research Agenda*

Organisation for Economic Co-operation and Development (OECD) (2005). *Business Clusters: Promoting Enterprise in Central and Eastern Europe 2005*, ISBN – 92-64-00710-5