



Munich Personal RePEc Archive

The development potential of clusters in Romania

Prejmerean (Dan), Mihaela Cornelia

Academy of Economic Studies Bucharest

30 July 2011

Online at <https://mpra.ub.uni-muenchen.de/35349/>

MPRA Paper No. 35349, posted 13 Dec 2011 21:21 UTC

THE DEVELOPMENT POTENTIAL OF CLUSTERS IN ROMANIA

Mihaela-Cornelia (DAN) PREJMEREAN
Academy of Economic Studies of Bucharest
mihaela.dan@fabiz.ase.ro

ABSTRACT

Nations and regions find themselves in a constant competition for attracting direct foreign investments, the most important producers, specialized work force, the best researchers etc. From this point of view the former communist countries could be in an unfavorably situation because they just recently managed to adopt the system of the market economy. Clusters are seen as a solution for the economical success in the global competition. The western European countries have in this way a one century tradition, and continue to sustain and finance programs for the development and expansion of clusters. Taking in account the western experience, the question arises if also in the former communist countries clusters can give the key for development and rapid fulfillment of objectives regarding cohesion, regional development, competitiveness at international and global level. The paper investigates the potential of forming clusters in Romania and gives an orientation in the decisional process for founding, localization, development of clusters.

Key words: cluster, Romania, competitive advantage, SWOT analysis

JEL Classification: R10, R11

INTRODUCTION

The transition period from the socialist to the western system based on a free market represents for Romania a time period with big changes. The history of the last 20 years shows that many decisions have been taken randomly or without preliminary research, or just as a consequence of the integration process in the EU. We observe that although the major objective was the adoption of a functional market economy, the governments didn't have a

long term strategy and didn't focus on particular sectors or fields. On the contrary, we observe that our country has a lack of coherent and viable policies. With some exceptions (the manufacture of textiles, clothes and shoes, car industry, chemical industry, food industry or IT sector) the Romanian industry is not financed, there are insufficient investments, or development projects. It is a fact that many multinational companies invested in Romania, but their scope was to utilize the cheap labor force and the fiscal conditions (profit tax of 16%) or the cheap price for the acquisition/leasing of field. But as we know, a company or a country is advantaged if it brings added value to the production chain, not only favorable conditions for production. From this perspective finding a solution for Romania in order to increase its international visibility and market share in the global export market becomes a priority.

If we analyze the success stories of the Member States or from the USA we establish that many of them consider cluster a development solution, especially on the regional level. We know that the competitive advantage doesn't belong exclusively to the company, in many cases it comes from the location or the uniqueness of the production factors, from the partnerships with different economical actors, from the public finance schemes etc.

THE CLUSTER THINKING

The term "cluster" is defined in several ways, and the notion includes different meanings from geographical, economical, urban or regional sciences. We understand under cluster a "competitiveness pole", "an industrial district" or "an industrial agglomeration". The definitions given by Marshall (1916), Lösch (1954), Isard (1956), and Porter (1988) a.o. have common points the relationship supplier-client, the value chain and the geographical proximity.

Through clusters, the organizations can decrease their transactional costs, can benefit from a specialized labor force, support services, are motivated to research and innovate by using also the knowledge of other partners.

Because there isn't a common definition for clusters we find in practice different types of economical agglomerations; all of them define themselves as clusters. Markusen (1996) made a first classification by their size and identified the following types:

- a) "Marshallian" cluster – made by small and medium enterprises, with strong relationships, dependent from the synergies of clusters;

- b) “Hub and spoke” - its members are one big company and several small enterprises which deliver specialized and support services, it functions on the principle of a hub, the big company establishes the cooperation conditions;
- c) “Satellite platforms” – the members are branches/plants of medium and big companies with a minimum of cooperation and networking;
- d) “State-anchored” – formed by state-owned companies, with relationships with specialized suppliers; its development is dependent by the finance schemes of the public services.

The cluster types analyzed by Markusen refer mainly to the American market which has regions dominated by multinational companies (car industry in Detroit) or where numerous small and medium enterprises gravitate, or regions where the local authorities implement development programs for attracting branches of large companies.

Clusters bring also a range of advantages (Barkley, Henry, 2001, pp.5-6):

- 1) *increase the location economies*: an industry concentrated in a specific location brings the costs economy due to the fact that suppliers deliver specialized services, there is a pool of specialized work force, there are public investments in infrastructure, financial markets familiarized with the needs of the industry, technological and information transfer;
- 2) *facilitate the reorganization of the industry*: there is a transition from the big producers to small specialized companies, usually on niche markets; this change is due to the global competition and launch of new production technologies;
- 3) *attract small specialized producers*: the adoption of new technologies and the niche specialization is often seen at the small enterprises within the clusters; the proximity of specialized companies and suppliers sustains the production cycle and the rapid response on the market changes;
- 4) *encourage the networking*: companies can obtain the advantage of complementarity, exploitation of new markets, activity integration or access to resources and knowledge;
- 5) *permit the concentration on public resources*: by hosting a cluster regions administrate better their resources and develop economically; the region can concentrate on the attraction, retention and expansion of small and medium enterprises and cluster programs can have a multiplication effect on the local industry.

Clusters are much appreciated because they are considered ideal for innovation, which contributes to the creation of added value. The production of knowledge cannot be separated from the activities that support this process. The innovation sustains a series of economical components like superior qualification of the work force or innovation effects on the offer demand chain which are very important for the competitive growth.

Practically, when defining clusters we take two variables in account innovation, upgrade of information and knowledge and technologically related industries. Based on this variables we identify also other forms of industrial agglomerations, which are not clusters (Figure no.1).

	Economic activity, in general	Technologically related industries
Efficiency (scale) and flexibility	Metropolises	Industrial districts
Innovation and upgrading	Creative regions	Clusters

Figure no. 1 Types of economic agglomerations

Source: Sölvell, Ö., Lindqvist, G., Ketels, Ch. (2003): The Cluster Initiative Greenbook, Stockholm, <http://www.cluster-research.org/greenbook.htm>, retrieved April 2011

Clusters are linked with competitiveness, which needs entrepreneurship. We may state that there is in fact a triade formed by industrial policy, competitiveness and cohesion, all of them insure the competitiveness potential of economical growth.

CLUSTERS IN ROMANIA

In Romania the concept of clusters was introduced together with the integration process in the EU. Starting with 2005 the EU concentrated more on the industrial policy and launched an integrated vision by analyzing the horizontal themes (poverty, competitiveness, climate change, energetic efficiency, education and occupation) in parallel with the analyze of the industrial sectors; all of this with the scope of becoming a global leader. The plans for 2007-2013 imposed a series of objectives regarding convergence, regional competitiveness, occupation and European territorial cooperation. The Member States were invited to include

in their national strategic plans measures for the fulfillment of these objectives and to regard the territorial development as a distinct option of economical initiative (Cojanu, 2010).

As a result of this, Romania adopted a series of documents which refer to the EU objectives, we mention here: the National Plan for Development, the National Strategic Frame, the National Reform Plan 2007-2010, the National Strategy for Sustainable Development, the National Strategy for Research, Development and Innovation 2007-2013, the Strategic Concept for Territorial Development – Romania 2030. In these documents, Romania sets the goal of orienting the industrial policy to process innovation and technology. Another objective regards „the consolidation of the competitive innovative clusters on local/regional/national/transboundary and transnational level” (the National Reform Plan, 2011) by sustaining the innovation, the partnerships with enterprises, universities and research institutes, and public administration.

For the time period 2011-2012 the authorities will finance projects with the scope of identifying new regions with agglomeration potential, economically strategic sectors, ways for involving SMEs in partnerships, benchmarking of clusters in comparison with EU clusters (The National Reform Plan, 2011).

The finance of the projects and initiatives is insured by the European funds (JEREMIE initiative), state funds through the Ministry of Economy.

Another objective regards the access of enterprises at funding schemes for research-development-innovation (RDI), a field where Romania has a poor ranking. According to Eurostat (2011) only 30% of the money spent on R&D is coming from the private sector, and the share of the SMEs is even smaller. The regions with the highest R&D costs are the regions Center and Bucuresti-Ilfov, where the major multinational and medium companies are located. At the national level only 12.9% of the enterprises are engaged in R&D partnerships.

All these official initiatives show action for a facilitating policy, which should create a favorable business environment for growth and innovation, financing specific projects, improvement of the regional image etc.

The term cluster was introduced in the HG998/2008, which establishes also seven growth pools (Braşov, Cluj-Napoca, Constanţa, Craiova, Iaşi, Ploieşti şi Timişoara) and 13 urban development pools. These are a link between the growth pools and small and medium towns, they contribute to the reduction of differences and to a balanced territorial development.

THE SWOT ANALYZE OF ROMANIA

The past experience of Romania shows, on one hand, that the government works to facilitate the cluster founding, to help the industries and the SMEs, and, on the other hand, there are few examples of cluster initiatives between local or regional enterprises, even there is a high potential.

“Ghidul pentru implementarea în România a conceptului de cluster inovativ” financed by the Ministry of Economy, Commerce and Business Environment (2009) presents a list of industrial parks, innovation and technological transfer units, universities, foreign and Romanian investors who could benefit from the advantages of a cluster. But, we observe at national and regional level that this kind of initiatives or partnerships is rare or they were implemented only with the scope of taking money from the EU without a long-term strategy. As a result of this we consider useful to have a SWOT analyze of the business environment and to identify those aspects that facilitate or hinder the cluster forming in Romania.

The strengths and weaknesses refer to internal forces of an organization, internal specificity of the business environment, policies, technology, legislation, ecology, human resources etc.

The main strengths are:

- the existence of economical sectors/branches with development potential (e.g. agriculture, textile sector, construction, manufacture industry, tourism, forestry, car industry);
- the efforts of the SMEs to expand and go international;
- the increasing entrepreneurship;
- the existence of local initiatives for associations (e.g. the University of Suceava is associated with some private companies in projects focused on tourism in the region of Bucovina);
- the existence of some important industrial agglomerations (e.g. Brasov-Cristian-Codlea platform) which host producers, specialized suppliers, and with universities in the proximity (Transilvania University from Brasov);
- the geographical position in Eastern Europe, inclusive the border with three non EU countries (Serbia, Ukraine, Republic of Moldova) which opens the opportunity for transboundary cooperations;
- the business environment itself, dinamic, in continuous change and development;
- the communication abilities of the employees;
- knowledge of foreign languages;

- adaptability and flexibility of the Romanian employees;
- fiscal facilitations for sustaining research development and innovation activities.

The most important weaknesses are considered the following:

- the political environment which is very unstable;
- the lack of a medium or long-term strategy;
- the impossibility of planing in advance, especially because of the frequent fiscal changes;
- the education system is not adapted to the labour market;
- the inflation of graduates in the fields of economy and law and the lack of specialists in manufacturing, agriculture, construction etc;
- the massive migration of the labour force, especially in the age group of 18-35 years old (the most active segment);
- the low mobility of the labour force inside the country;
- the low life quality (no access to public services, undeveloped rural areas);
- poor infrastructure (aprox. 300 km of highways)
- the rare or no communication between potential partners in a cluster (enterprises, universities and public administration);
- poor image of universities in the eyes of the business environment and public;
- lack of a national coherent strategy with clear themes in important fields;
- lack of cooperation between members from industrial agglomerations;
- lack of a significant concentration of activities in agriculture, forestry and fishery (the plants are located far from the production place, the arable fields are too small and impede the big exploitation);
- the financial and energetic resources necessary in the production process are expensive;
- the income level is low in comparison with other countries and is not attractive for the young labor force; they refuse to live and work in poor regions (rural area, small and medium towns).

The opportunities and threats are emphasised by external factors, which cannot be directly influenced by the business environment; they modify the behaviour and the decision of it.

Some of the opportunities of forming clusters are:

- the existence of finance schemes in the EU and in Romania;

- the EU policy regarding the industry and especially the clusters;
- the obligatory character of the EU policy for the Member States;
- the Europe 2020 Strategy brings in front the competitiveness together with other subjects and binds the Member States to rethink the measures for the business environment and the development possibilities in a global context;
- the attraction of foreign investments (recently the ranking score of Romania improved); companies opened new branches or expanded the existing ones;
- the Strategy for the Black Sea and the Danube Strategy open new opportunities for transboundary cooperation and economic development;
- the international demand for special types of tourism (agro-tourism, mountain, rural, spa and wellness, religious etc.) is increasing and Romania has the potential;
- the introduction of development plans in the 8 development regions and at the local level;
- the increase interest of some multinational companies for creating branches and R&D units in university cities (e.g. Timisoara, Iasi).

The risks that can influence the clusters refer mainly to the following aspects:

- the neighbourhood countries even the non EU (e.g. Croatia) attract more funds for clusters;
- the neighbourhood countries have more functional clusters than Romania (e.g. Slovenia, Hungary);
- although Romania adopted several objectives regarding competitiveness, industrial policy and clusters, there is the risk of interrupting or not fulfilling all of them (one influencing factor is the rotation of the parties after each elections and the change of strategy by 180 degrees).

The SWOT analyze emphasis that clusters have a potential in Romania, but there are problems and issues which can discourage the entrepreneurs or the SMEs. The members of a cluster have to cover some steps, the business environment has to establish priorities and accept collaborations with research-innovation units, universities to strengthen them, to improve their image, and the state represented by the public administration should invest in modernization and increase of the efficiency.

Some solutions are an orientated lobby for partnerships and collaborations and an efficient communication at all levels about the advantages and benefits which are brought by the clusters.

CONCLUSION

The cluster is one form of association and cooperation that can help Romania to gain competitive advantage on the global market. All actors involved in a cluster have to cover some steps, universities to strengthen themselves, to improve their image, the business environment has to establish priorities and accept collaborations with research-innovation units, and the state represented by the public administration should invest in modernization and increase of the efficiency.

ACKNOWLEDGEMENT

This work was co financed from the European Social Fund through Sectoral Operational Programme Human Resources Development 2007-2013, project number POSDRU/89/1.5/S/59184 „Performance and excellence in postdoctoral research in Romanian economics science domain.

REFERENCES

- Cojanu, V. (coord.) (2010): Potențialul competitiv al creșterii economice: linii directoare pentru o nouă politică industrială în România, București: Institutul European din România, http://www.ier.ro/documente/spos_2010/SPOS_4_site.pdf, retrieved April 2011
- David L. Barkley and Mark S. Henry (2001): Advantages and Disadvantages of Targeting Industry Clusters, REDRL Research Report 09-2001-01, Clemson University
- Isard, W. (1956): Location and Space-economy; a General Theory Relating to Industrial Location, Market Areas, Land Use, Trade, and Urban Structure. Cambridge
- Lösch, A. (1954): The Economics of Location, 2nd edition, New Haven

Markusen A. (1996a), 'Sticky Places in Slippery Space: A Typology of Industrial Districts', *Economic Geography*, Vol. 72, pp. 293-313

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

Sölvell, Ö., Lindqvist, G., Ketels, Ch. (2003): The Cluster Initiative Greenbook, Stockholm, <http://www.cluster-research.org/greenbook.htm>, retrieved April 2011

Ghid pentru implementarea in Romania a conceptului de cluster inovativ (2009), Bucuresti: Irecson

HG998/2008 - Hotărâre pentru desemnarea polilor de creștere și a polilor de dezvoltare urbană în care se realizează cu prioritate investiții din programele cu finanțare comunitară și Națională

Science, technology and innovation in Europe, Eurostat EC, 2011, http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-31-11-118/EN/KS-31-11-118-EN.PDF, retrieved June 2011

Programul National de Reforma 2011-2013, aprilie 2011, http://ec.europa.eu/europe2020/pdf/nrp/nrp_romania_ro.pdf, retrieved June 2011