

THE DYNAMICS OF CLUSTERING PROCESSES IN EUROPE

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ABSTRACT:

This paper aims central to the dynamics research of clustering processes in various parts of Europe, namely the European Union, in order to identify how come the experience earned here could be used in the process of clustering in the countries of Central and Eastern Europe. In this regard, studies were conducted designed to identifying the main guidelines in clusters conceptualization, discerning clustering processes and their dynamics, in two groups of countries. The first group includes the countries where public policies were those that stimulated the space organizations innovation of business in clusters form. The second group includes countries where private initiative stimulated and maintained the entire process of clustering. This specific paper intents, based on a comparative analysis in the dynamics of clustering conducted in the "top down" and "bottom up" logic, to inspire the entire clustering process in Central and Eastern Europe.

Keywords: *cluster, innovation, bottom-up approach, top-down approach*

1. INTRODUCTION

The clustering process has experienced unprecedented dynamics in recent years, as it has the potential for creating added value above all collaborative organizations spaced-apart from each other.

The important role of organizing the activities in crowded structures, as innovative forms of spatial organization, in order to ensure a more efficient and effective business by using the synergy between organizations, stirs the interest of researchers in management.

The purpose of this paper is to highlight the theoretical and empirical contributions that allow the understanding of behaviors that can be adopted by the countries of Central and Eastern Europe in terms of clustering to enable them to obtain and develop their competitive advantage.

Explicit cluster policies established top-down by regional governments are compared to initiatives which only implicitly refer to the cluster idea and are governed bottom-up by groups of industrial actors.

2. THEORETICAL PERSPECTIVES ON CLUSTER CONCEPT

Marshall described the advantages of agglomeration of economic activities in terms of the availability of a qualified workforce. The cluster notion comprises different aspects covered by a lot of concepts that have been around for nearly one hundred years. The concept of cluster has been implemented by M. Porter as: „a geographical proximate group of interconnected companies and associated institutions in a particular field, linked by commonalities and externalities”[7].

With accordance to the definition found in the Community Framework for State Aid for Research,

Development and Innovation [11] clusters are groups of independent companies and research organizations which act in a certain domain and in a certain region with the purpose of stimulation of innovative activities by the means of promotion of intensive interactions, access to common facilities, exchange of experience and knowledge and by contribution to technology transfer, networking and dissemination of information.

The European Cluster Observatory stresses the importance of communication in a specific form, which can be integrated into a cluster.

Cluster initiatives are organized efforts to enhance the competitiveness of a cluster, involving private business, public bodies and/or academic institutions within a regional and sectorial system [9].

3. TOP-DOWN AND BOTTOM-UP APPROACH ON CLUSTERS

While Marshall’s formulation of the industrial districts was not necessary the cooperation between local actors, Becattini believed that the existence of cooperation between main cluster’s actors would be a real advantage, the latter being the supporter of a bottom-up approach.

Top-down approach refers to support measures initiated by the private cluster actors for the clusters initiatives, while the bottom up approach is characterized by a strong involvement of government bodies.

In practice, cluster policy approaches differ. At the European level, clusters are formed from a bottom-up or a top-down approach and are supported by own funds or by national or European funds. Some countries operate a top-down approach, in others cluster policies are implemented by the local actors, which is a bottom-up approach.

The experience of the developed countries in the European Union shows that clusters are significant form

of collaboration between scientific centres, public institutions and government authorities. Here, the clusters involve a combination of the top-down and a bottom-up approach.

There are strategic reasons for using these different types of approaches [2]:

- the clear targets (strategic, quantitatively identifiable) and the coherence with other programmes, both for the top-down approach;
- when best or possible participants not clear upfront, information best obtained by self-identification, Gauge motivation of participants, all for the bottom up approach;
- best choice in a pre-defined universe, lower level of government best placed to select, collaboration across levels of government required, special additional considerations in cluster selection – for the combination of the top-down and bottom-up approach.

For the top-down approach there are a several innovation focused projects which sustain them for strategic reasons.

4. EUROPEAN TOP-DOWN AND BOTTOM-UP APPROACH ON CLUSTERS

The concept of cluster is associated with synonyms like: pôles de compétitivité in France and Belgium, distretti industriali in Italy, centers of expertise in Finland, network of excellence in Germany and centers of technology in Denmark.

The mechanism of implementation the cluster concept is different at the lever of the member states of European Union. Some examples that could be consider eloquent to sustain the approaches regarding the elaboration and financing the clusters is present below.

Finland's National Cluster programme had allocated research and development funds to the largest statistical clusters in its recession recovery efforts[2]. As with many countries, Finland's regional policy has transitioned from a top-down subsidy approach to one that promotes the leveraging of regional assets and an active effort to coordinate across ministries[10]. The National Cluster programme is identified through mapping. This first cluster selection was therefore top-down by the Strategic and Technologic Policy Council. In contrast, the CoE programme has a regional focus and promote the triple helix model. The programme represents a bottom-up type of policy framework and it combines different sector policies such as regional development, industrial, innovation, education and labor force policy[2].

Due to the long-term orientation and a simple and straight-forward cluster policy, the one-agency-principle and the top-down set-up and bottom-up operations approach, it is expected that clusters will continue to play a vital element in the Upper Austrian innovation policies[12].

The Basque Country is a small country with an important manufacturing industry. The first two Cluster Associations were set up in 1992. After that, a further nine Cluster Associations were created using a top down approach. now the approach is bottom-up[12]. The Basque Country Competitiveness programme to support clusters seeks to improve the competitiveness of firms.

The goal of the programme is to promote active co-operation among firms[2]. The Competitiveness programme offered a new approach to be used as a part of the region's industrial policy. It was built based on firm cooperation[2]. In Spain, the selection of the actors for the Barcelona Knowledge Cluster is made in a top-down approach.

The Cambridge Knowledge-Based Cluster is made up of a number of overlapping and complementary clusters of firms, public sector organisations and institutions. It has not been driven by the public sector so has not had a top-down infrastructure imposed upon it. the East of England Development Agency (EEDA) supports the cluster through the development of a network of enterprise hubs[2]. In the same time, the West Midlands and Yorkshire Clusters prefers a top-down approach.

As a post-socialist country, the Czech Republic had an economy dominated by large state industries until the early 1990s. While there has been a rapid transition, the lack of a tradition of entrepreneurship and SMEs during the socialist period has been a hindrance to bottom-up economic development[2].

In Germany, by contrast, cluster promotion presents a stronger top-down impetus and more strategic coherence, although, it often fails to mobilize the private sector to join in. Innovative Regional Growth Poles is a programme that supports the establishment of regionally and thematically focused innovation initiatives in the new Länder. Co-operative R&D/education projects build on regional strengths to develop future growth poles. The programme is implemented as a competition with a thematic focus defined by bottom-up initiatives[2]. In this context, the Baden-Württemberg cluster policy sees itself as a moderator and catalyst rather than a subsidizing entity. Thus it follows a bottom up cluster development approach[12].

In Croatia, whilst some appear to be more bottom-up initiatives, others appear to be more top-down[8]. The Boat Building Cluster was founded on 28th of September 2007 on the top-down initiative of the Ministry of Economy, Labor and Entrepreneurship and Croatian export offensive project and The Association of Croatian ICT Clusters was founded in Rijeka in September 2007 as a bottom - up cluster initiative of the 6 regional clusters[6].

For Denmark is specific the top-down approach, here being seen centres of excellence in specific areas, new educational programmes in specific areas and institutional reform in policy making[1]. In Belgium the cluster policy is developed using a bottom-up approach. Over the last 20 years, in the context of a growth economy this bottom-up

approach proved to be effective: Flanders has been among the top regions regarding economic growth. Collaboration between companies and research centers was promoted in bottom-up collaboration projects. Mainly a bottom-up initiative, this resulted in a broad range of rather small competence poles. This cluster policy is developed using a bottom-up approach. Demands coming from existing enterprise networks are spontaneous [12]. There are currently two national cluster programmes in Norway.

They are both based on a bottom-up approach with a clear ownership of the strategies and development of the cluster lying within the industry/ business community [12]. Here a clear ownership of the strategies and development of the cluster lying within the community and in Italy the law requires productive clusters to be grounded on „development pacts”. [12]. The traditional sectorial district, research and development sectors, business network contracts launched by a bottom up approach, and the technology and know-how driven clusters by a top down one. In Poland a hybrid model of cluster development is preferred combining bottom-up processes of cluster initiatives' development with top-down selection of excellent clusters which have potential for being competitive in a global scale [12].

Ireland delivers a bottom-up approach to cluster development rather than the traditional European top-down as the Northern Ireland solution is seen as more appropriate to an SME-led economy. The Collaborative Network Programme (CNP) has been in operation in Northern Ireland since 2008. It is a bottom up approach to collaboration with an open call to business-led networks to approach Invest NI for support [12].

National programme for development of innovation system and clusters, from Sweden, aimed at regional level, focused on developing competitive and dynamics networks. Regions' growth strategies focus on specific industrial specialization in a bottom-up approach, but the government have a facilitating role for clusters [3].

The Hungarian clusters development policy could be characterized as top down by the central government [5]. Cluster development in Slovenia followed a bottom up approach. Clusters were not defined by government policy, on the contrary, companies themselves decided to form a cluster by responding to a government tender [12].

In Greece the design followed an authoritarian top-down approach. With a view to a smart specialization strategy, there is a need to replace the existing top-down and state-led institutions by a set of institutions that ensure bottom-up demand and user-driven and participatory innovation governance. Most Greek regions had experience in bottom-up participatory innovation policy [4].

A number of bottom-up market driver clusters exist in Estonia. Only recently appeared programmes in sustaining clusters and the technology area [3].

A combination between the two approaches is known in Latvia, where the government role is to help the cluster actors in different stages of collaboration. The top-down

approach is used when the core members are universities and research institutions [3].

5. CONCLUSIONS

Even if bottom-up approach appears to be favorable in some degree, the top-down one with its public programs also has its benefits.

My argumentation confirm that there is no ideal approach for the cluster initiatives, because in some situation are more useful than explicit strategies, and in others the implicit ones. Even if in a region we can find different approaches, in different clusters, it is difficult to establish that a combination between two of them should be found in the same cluster without a clear delimitation between them. This can create confusions for the cluster management.

In the European cluster analysis we can see that most of them were founded on a bottom-up approach, the private sector was the one who took the initiative of their creation. These clusters have a positive contribution to the local and regional performance, although not developed with policies designed to support the appearance.

Developing countries are confronted with big gaps regarding to the public authorities and this requires special efforts. In developed countries, the cluster partners operate at the international level, creating cluster networks, and this is less seen in the developing countries from the Eastern Europe. The countries from this part of Europe have fewer clusters and less resource, fewer skilled employees and less public and private sources of funds. In the same time, the Western European countries have a broad representation of the sectors with possible competitive advantage, larger sources of funds.

The transition to the high-performance economies involves the increasing level of geographical concentration and specialization. If, in addition to the desire of private companies to form clusters will appear different national, regional or/and local programmes to sustain this form of spatial organization, it is possible that clusters in Eastern European countries to become successful initiative for the European Union, with competitive advantages at the global level.

Also, networking collaboration between clusters or cluster actors in Western Europe with those in the East Europe could be a support for this part of the continent.

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