

## Creating clusters as a means of achieving competitiveness

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### ABSTRACT

*In today's rapidly globalizing world, avoiding co-operation with competitors and concentrating on business isolation is a strategy that could lead to its collapse. Enterprise goals are geared towards participation in the global production network, attracting resources and achieving competitiveness. Creating clusters helps them to achieve these goals by helping them with faster communication, access to resources and opportunity to expand their business.*

*Keywords: clusters, competitiveness, enterprises, creating clusters.*

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### INTRODUCTION

There is a precise definition of a cluster in the economy and, in its view is that the cluster is a geographically linked network of companies that carry out similar, interlinked and/or complementary activities. Companies must have active channels for business relationships and constant communication, requiring them to use common specialized infrastructure, labor markets and services, and to share opportunities for expanding their business.

Depending on their composition, clusters are characterized by their depth, width and length. The depth of clusters is determined by the number of companies included in it vertically followed from each other and linked through a supply

chain of materials, components, machines, services, etc. The width of the clusters depends on the number of companies involved in each level, i.e. of the number of industries in a horizontal section. These industries are related to common products, technologies, implementation channels, and users. The width can be determined for each of the cluster levels, but it is usually done at the level of the leading industry. The length of the clusters is determined by the total number of the companies involved [1].

### DISCUSSION

The idea of creating and implementing clusters was born in the mid-1980s, and only a decade later became extremely popular. Clusters

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help find solutions to defects caused by the influence of globalization [2]. The main problem is to redefine the relationships of international corporations and governments due to the rapid increase in resource mobility and the opening of new markets.

Clusters contribute to achieving competitiveness alongside other national initiatives such as political reforms, public-private dialogue, regional development, workforce growth. They are catalysts of public support for economic reform programs, as they attract a wide range of stakeholders and are one of the most effective tools in a broad context for developing private sector initiatives [3]. In part of the developed economies, clusters represent an attempt to connect small and medium-sized enterprises that, due to the globalization of the production chain, find themselves in difficulty as a result of the decline of the locations in which they operate [4].

According to Michael Porter, it is important how much is produced not what is produced. He considers it is unreasonable to attract a certain part of an industry on the basis of existing conditions such as low wages. Putting emphasis on low wages rather than on high productivity, for example, shows willingness to find new workplaces. Michael Porter's idea has revolutionized the industrialization of the areas and the use of their resources. This is the difference between creating a location and creating clusters.

The role of clusters in promoting competitiveness is determined by the goals for which they are created. Cluster initiatives are a kind of complement to allow the effective redeployment of policies towards a globalizing world, making their goals and expected results consistent with the notion of competitiveness [5]. This contributes to the relationship between developed and developing countries.

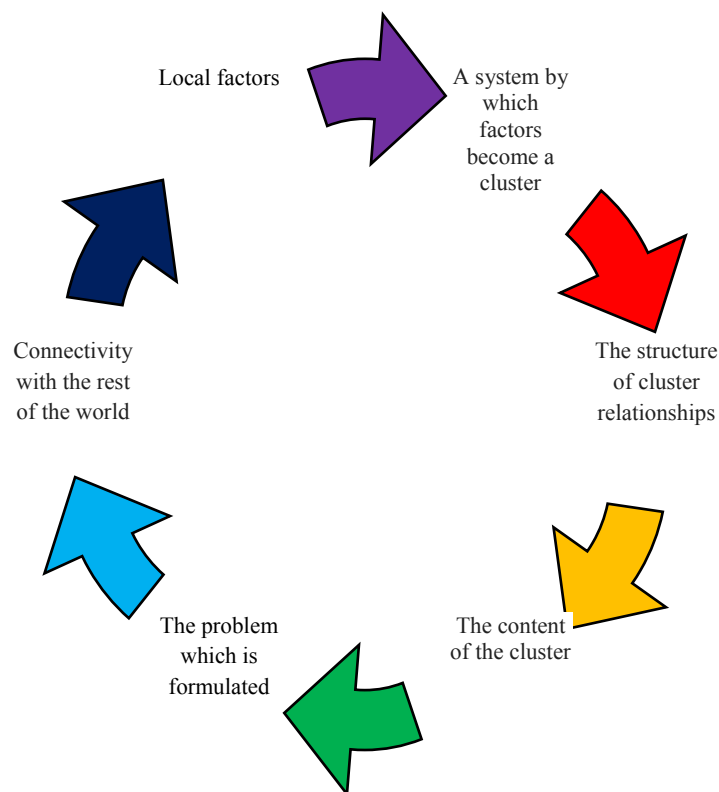


Fig. 1. Highlights of cluster creation.

Cluster initiatives allow refocusing on a specific industry to a particular area, they enhance competition, avoid a strong bureaucratic approach and allow participation in the global production chain without the need for unnecessary protectionism.

Businesses that use innovation policies as a measure to achieve higher levels of productivity and competitiveness use clusters to target goals in one direction. Cluster initiatives are focused on how much and how it is innovated rather than on what and who is innovating. Innovation thus depends on the national innovation system as part of the global production or commercial network rather than the economy or the place of innovation.

A clustering feature is that they work in a highly dynamic and changing environment. When conducting initiatives related to their establishment, their geographic location, its linkage to different types of industries, as well as changes in the production structure of the individual sectors are taken into account.

The impact of these initiatives is focused on the components presented in Fig. 1.

Most cluster initiatives are geared toward using the Michael Porter model called “Michael Porter Diamond”. It appears to be a finished idea

in 1990 and is an empirical summary of the successful experience of some countries and regions in building competitive economies. Basically, the summary is based on a model that was gradually shifted in the early 1990s by the growing globalization and new structure of the world economy, different from the familiar international trade. A distinctive feature of the “diamond” is that it attracts resources that are part of the region’s overall infrastructure. This creates a relationship between search conditions, related and supporting industries and strategies, structure and rivalry between participants, as in this model the country has the opportunity to influence each of the elements of Michael Porter’s diamond. This impact may be at regional, national or international level.

The main goal of cluster initiatives in some regions is the concentration of resources in them such as capital, people, knowledge or material resources. This means not only the existence of a highly effective environment, but also of one that cannot easily be created. This goes beyond the specific area in which the region exists and which has undoubtedly an impact on access to resources and resources to the region at all. The sustainable attraction of resources requires the achievement of certain conditions such as the efficiency of the accumulated assets and their

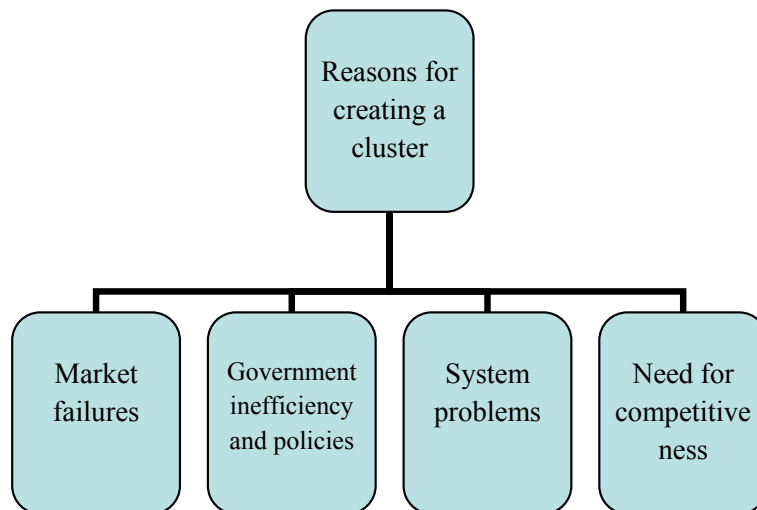


Fig. 2. Reasons for creating a cluster.

interconnectedness [6].

Cluster initiatives would be successful in successfully attracting resources, time-bound activity, and linking them to a product used by cluster participants. The creation of clusters should not be interpreted solely as an act to create cluster organizations but as an act to create a cluster environment. The reasons for creating clusters are presented in Fig. 2.

Most often when creating cluster organizations, tasks are related to:

- creating infrastructure to allow networking between cluster participants;
- increasing the dynamics of innovation;
- increase in productivity.

Here, it is important to note the main features of both the system and the cluster approach and to compare them. While in the system approach we focus on end-product industries, avoiding cooperation with competitors and rivals, dialogue with the government is focused on subsidies, protection and restriction of competitors, the cluster approach involves engaging consumers and suppliers of products and services, connecting industries with common technologies,

skills, information, users and channels (as most participants are not direct competitors but share common needs and constraints), and the dialogue is wide-ranging in the area of general concerns, which increases competitiveness and productivity.

From what has been presented up to now, we can summarize some goals for creating clusters represented in Fig. 3.

Most cluster initiatives face constraints related to the benefits of a given cluster, its cause, identifying which clusters generate particularly strong ones, and defining the role of market potential for the cluster.

In turn, the base of a cluster or cluster environment is built on several basic parameters. The first parameter is the presence of participants, which is a fundamental condition as the main actors in the cluster can occupy the following roles: participants offering similar or related services; participants offering complementary products and services; participants, users of products and services and participants sharing a common resource base. The second parameter is the availability of consumption. It evaluates products and creates problems, defines the boundaries of the

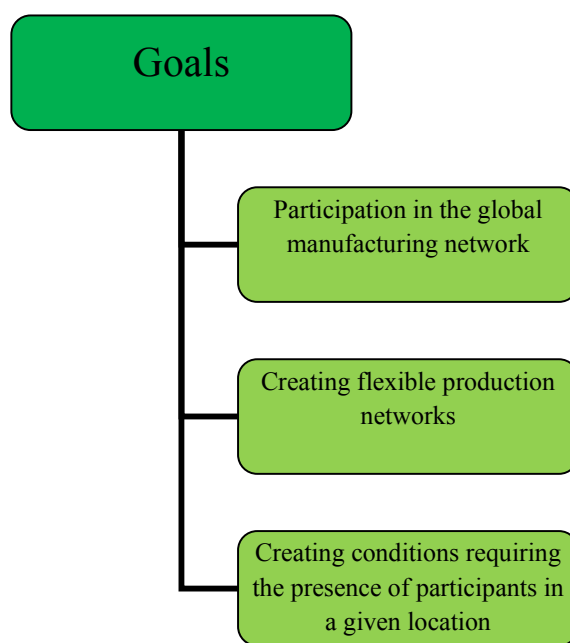


Fig. 3. Goals for creating clusters.

cluster and defines in many ways its internal structure. The third parameter is the existence of problems - they are of a different nature, such as those related and coming from other sectors, such as production-based and systemic problems. The fourth parameter is the availability of infrastructure - again a fundamental condition. Infrastructure is the one that connects the system with the economy and its participants [7]. The fifth parameter is the ability to create a cluster. And the last sixth parameter is related to the availability of system stability.

The measures that can be taken to enhance the effects of clusters are [8]:

- establishing a stable and predictable economic and political climate;
- creating favorable and framework conditions for the smooth and dynamic functioning of the markets;
- creating an environment that encourages innovation;
- raising awareness of the benefits of knowledge sharing;
- facilitating the formal and informal exchange of knowledge;
- establishing programs and projects to promote competitiveness for joint research and development;
- providing strategic information;
- creating rules and regulations.

The concept of cluster interconnection and competitiveness can be expressed through cluster formation conditions and hence the supposed competitive benefits. The conditions are geographical proximity, entrepreneurial culture, critical mass of companies, and confidence-building. Supposed benefits are related to productivity, specialization, innovation, costs and cooperation.

## CONCLUSIONS

On the basis of the information on clusters and their use as a tool for achieving competitiveness, we can summarize the following conclusions:

- the clusters' relationship to global competi-

tiveness determines their specificity;

- the realization of the benefits of the model related to creating a competitive economy through the establishment of a cluster environment is in place when we have a connection both from the environment to the enterprises and from the enterprises to the environment;

- there is complex interrelation between clusters and competitiveness;

- the implementation of cluster initiatives influences the ability of the environment to create clusters;

- the results of setting up a cluster environment are expressed not only in cluster activity but also in competitiveness-oriented activities.

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