THE CLUSTER POLICY STATUS IN ECONOMIC POLICIES OF SELECTED COUNTRIES. COMPARATIVE APPROACH

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Abstract

In the global economy, clusters and cluster policy are used in the process of development of countries and are often discussed in the literature, especially in the context of innovation and regional policies. The article aims to present the status and place of the cluster policy in the primary economic policy of a country. The following research questions have been posed in the paper: (1) what is the status of cluster policy in selected countries? (2) is there a difference in the status of cluster policy in developing and developed countries? (3) what is the best model for cluster policy in the economic policy in the national economy? The article is based on a critical review of the literature on the subject and national and international data on policies. The author analyses the national policies of selected countries to indicate the status of cluster policy.

Key words: cluster policy, economic policy, clusters

JEL Code: L14, O25

Introduction

Cluster policy is widely used in many countries of the world, both in developed and developing economies. The purpose of the cluster policy is to support the development of cluster initiatives and already functioning clusters that ensure economic growth and improve the innovation level of the regions in which they are located. However, clearly defining the cluster policy is an issue, which may result from difficulties in excluding cluster policy from other policies carried out in a given national economy (Boekholt, Thuriaux, 1999; Raines, 2003). Research conducted in individual national economies shows that cluster policy, as a separate set of actions, is noticed only in a few countries, while, in most cases, it is an element of innovation, technology, industrial, regional or development policy. The article aims to present the status and place of the cluster policy in the primary economic policy of a country. The following research questions have been posed in the paper: (1) what is the status of cluster policy in selected countries? (2)

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1   Cluster policy – theoretical approach

The phenomenon of creating clusters and the functioning of cluster policy is widely discussed by both researchers and representatives of the national authorities. Based on the seminal work of Solow (1956), Arrow (1962), or Romer (1986), scientists started to analyze the economic rationale of clusters and provided compelling empirical evidence (Lehmann, Menter, 2018a). Due to the perception of clusters as a factor contributing to economic growth, there is knowledge creation and raising the level of innovation of both cluster companies and regions in which they operate. The interest of companies belonging to clusters coincided with the launch of many support programs of cluster initiatives and clusters by the authorities in many countries (e.g. Canada, Japan, Denmark) and supranational entities such as the European Union.

Just as difficult it is to precisely define the term cluster, it is as hard to define the concept of cluster policy. Both concepts are comprehensive, and the difference in their interpretation results from the diverse conditions in which they are created. Cluster policy can be defined as obligations and actions of state or local authorities aimed at providing support to existing clusters, or establishing conditions favourable for creation of new clusters. According to Sun, Lin and Tzeng „cluster policy entails a shift of focus from individual firms to local/regional systems of firms and firms' value adding environment" (Sun, Lin, Tzeng, 2009).

The most frequent approach to cluster policy is to emphasise its importance for promoting and supporting economic development (Wolfe, Gertler, 2004) and raising the level of competitiveness, efficiency and innovation of cluster entities (Aziz, Norhashim, 2008). According to Lehmann and Menter, cluster policies have at least two dimensions; one is the focus on promoting innovation and performance of chosen industries and the second is insisting on the importance of the local territory with the underlying idea that knowledge and technology spillovers are localised (Lehmann, Menter, 2018a). They define cluster policy underlying the regional needs and goals that are possible to pursue by making use of the regional or local level assets (Lehmann, Menter, 2018b).

Policymakers aim to support cluster development, and they expect to boost innovation, raise competitiveness and increase job creation (Huggins, Williams 2011). According to

Audretsch, Lehmann et al. cluster policy aims to stimulate national or regional performance in developing and adapting to new technologies, and to bring new services and business innovations to the markets. Cluster policies, to achieve the regional prosperity, stimulate entrepreneurial innovation by bundling resources and exploiting the benefits of local agglomerations and spatial proximity, thus inducing knowledge spillovers and place-based entrepreneurship (Audretsch, Lehmann et al., 2019).

The role of cluster policy varies depending on the method used to create the clusters. The bottom-up initiative is a natural way of forming the cluster in Porter's meaning, which originates from the enterprises themselves. Creation of such clusters is economically most justified and closest to the idea of their existence, which assumes building connections based on established informal relations between enterprises. In this method, the role of cluster policy is limited only to the support of selected activities, most often in the form of financial subsidies. The second method is called top-down, in which the initiative comes from local authorities, that is, it is derived from the current cluster policy. In this case, the authority has a more significant impact on the structure and activity of the cluster.

According to Martin and Sunley, standard cluster policy assumptions can help in promoting local resources that are absent due to market failures. They enumerate four main activities of cluster policy (Martin, Sunley, 2003):

- cluster policy emphasizes the benefits of creating co-operative networks and encouraging partnership between firms and public agencies. Firms can exchange information, pool resources, design collective solutions to shared problems and develop a stronger collective identity. In this case, the first task for the cluster policy is to appoint brokers and intermediaries to organize contacts between cluster actors;
- cluster policies often involve collective marketing of an industrial specialism, based on place marketing and raising awareness of the region's industrial strengths;
- cluster policy should aim to provide local services for firms such as financial advice and other services to ensure that they meet specific local needs;
- cluster policies should identify weaknesses in the existing cluster and attract investors and businesses to fill those gaps and strengthen demand and supply links.

2   Cluster policy – a status in economic policy

Both cluster policy, innovative policy and economic policy are concepts that are intrinsically related and interpenetrating. These policies cannot be unambiguously distinguished, which is

observed in many countries where clusters are supported as entities creating innovation. Economic policy is the broadest of these policies, where innovation policy can be distinguished, combined with entrepreneurship. Innovation policy aims to achieve economic goals. Innovative policy according to Weresa is a system of public administration activities stimulating the creation of new solutions, as well as their dissemination and implementation, which is the art of science management and innovative activity in a given country. It can be concluded that clusters fit into the innovation policy because they constitute a pro-innovation structure (Weresa, 2014). Cluster policy, therefore, fits into the innovation policy pursued, which is one of the tools of economic policy.

Only in a few countries around the world, cluster policy is developed on a large scale and is separated from economic or innovative policy. In most national economies, assumptions are made for cluster policy, which is most often a fragment of a larger whole. The connection of traditional policy domains with cluster policies was presented in Table 1. According to this data, links exist between cluster policy and many other policies, including trade, technological and development policy, and, less obviously, tourism or educational policy.

Tab. 1: Connection of traditional policy domains with cluster policies

Policy Domain	Connection with clustering policies
Regional Development Policies	"Value creation" from geographical (regional) industrial concentrations. Development based on local dynamics and internal potential.
Industrial Policies	"Clustering" as a tool for strengthening interorganizational collaboration in the value chain.
Science and Technology Policies	Technological innovation through collaborative interactions and "regional innovation systems".
SMEs Development Policies	Strengthening the linkages and collaboration between SMEs and strengthening the competitiveness of SMEs on an individual enterprise level.
Foreign Trade Policies	The necessity of export-oriented policies in order to increase the competitiveness of the economy by shifting to a high value-added production structure.
Agriculture Policies	Within the framework of sustainability, establishing Unions of Agricultural Manufacturers so that a clustering approach that addresses competitiveness may be adopted.
Tourism Policies	Establishment of Infrastructure Unions; supporting R&D in the sector through collaboration among public, the private sector, and universities.

Labour Policies	Increasing registered employment and the quality of the workforce, creation of a skilled workforce as required by the economy.
Education	Enhancing vocational training and thus, the quality of workforce and skilled labour for SMEs located within a cluster.

Source: Clusters and clustering policy: a guide for regional and local policy makers, 2010, INNO Germany AG, Belgium.

According to Nishimura and Okamuro, cluster policies can be regarded as regional, industrial, or technological policies and implemented as targeted subsidization or networking support under any of these aspects (Nishimura, Okamuro, 2010). Martin and Sunley see the cluster policy as a part of the regional policy „cluster policy typically represents a relatively cheap form of regional policy, but it is one that can raise the public relations profile of particular economies" (Martin, Sunley, 2003). Duranton et al. formulated the idea that „the market for cluster policies is much larger than those for traditional and industrial policies" (Duranton et al. 2010). According to Njøs et al. „Cluster policy can be placed somewhere between a nationally oriented industry policy that promotes a narrowly defined set of industries, or "national champions", and a broad regional innovation policy prioritising the development of regional capabilities and regional institutional thickness" (Njøs et al., 2017). The alignment of different policy streams toward clusters was presented in table 2.

Tab. 2: Alignment of different policy streams toward clusters

Regional stream	Old approach	New approach	Cluster programme focus
Regional policy	Redistribution from leading to lagging regions	Building competitive regions by bringing local actors and assets together	• Target or often include lagging regions. • Focus on smaller firms as opposed to larger firms. • Broad approach to sector and innovation targets. • Emphasis on engagement of actors.
Science and technology policy	Financing of individual, single-sector projects in basic research	Financing of collaborative research involving networks with industry and links with commercialisation	• Usually a high-technology focus. • Both take advantage of and reinforce the spatial impacts of R&D investment. • Promote collaborative R&D instruments to support commercialisation. • Include both large and small firms; can emphasise support for spin-offs and start-ups.
Industrial and	Subsidies to firms; national champions	Supporting common needs of	• Target the drivers of national growth.

enterprise policy		firm groups and technology absorption (mainly SMEs)	• Support industries are undergoing transition and shedding jobs. • Help small firms overcome obstacles to technology absorption and growth. • Create competitive advantages to attract inward investment and branding for exports.

Source: OECD, 2007.

Nauwelaers identified three types of cluster policy: the Mega Cluster (connected with industry competitiveness), the Local Network Cluster (regional institutional thickness) and the Knowledge-Based Cluster (innovation respectively) (Uyarra, Ramlogan, 2012). It can be concluded that there is a strong connection between cluster, innovation and economic policy with the clear task to implement the developmental goals of the economy.

3 Cluster policy in economic policy - selected countries

The analysis of various cluster policies carried out in the article allows concluding that the vast majority of cluster policy results from the innovation policy or is its tool. In eighteen countries surveyed, in thirteen cases there was a clearly defined innovation policy whose primary goal was to raise the level of innovativeness of a given national economy, and the support of clusters was only one of its elements. In seven countries separate actions of national authorities can be observed included in the broadly understood cluster policy. These countries belong to the economically developed countries, which allows concluding that the cluster policy exists, as a separate policy, mainly in highly developed countries. In six of the countries studied, support for existing clusters (usually industrial clusters) takes place within a broad industrial policy. In this group of countries, in both countries, there is an innovative and industrial policy at the same time, while in the other three innovation policy is not separated. This is the case in China, India and the Slovak Republic. Therefore, it can be concluded that in the emerging and less developed countries, the cluster policy is not present, and the activities supporting clusters do not result from the innovation policy but from the industrial policy. This is consistent with the interpretation of clusters' definitions adopted in official documents of China and India, which emphasize the production nature of clusters as opposed to their function of creating knowledge and innovation.

Tab. 3: Cluster, innovation and industrial policy in various countries

Countries	Cluster policy	Innovation policy	Industrial policy

Austria		+	
Canada	+		
Denmark	+	+	
Finland		+	
Germany	+	+	
China			+
India			+
Italy		+	+
Japan	+		
Norway	+	+	
Poland		+	
Slovak Republic			+
Slovenia	+	+	
South Korea		+	
Spain		+	+
Sweden	+	+	
Switzerland		+	
US		+	+

Source: Author's own work

Conclusion

Among the cluster policy models in various countries studied in this article, a significant differentiation in the structures of these models can be noticed and various institutional involvement. Undoubtedly, from the point of view of clusters and entities involved in institutional support, it is advantageous to distinguish cluster policy from industrial and innovation policy. On the one hand, it allows achieving objectives directly related to clusters, ensures transparency in the relationships between clusters and authorities, but above all enables control and verification of the course of cluster policy. If the cluster policy functions as a separate assumption, it is possible to define tools, control activities and progress of this policy. Currently, a big issue is measuring the effectiveness of cluster policy, especially in those countries where cluster policy is a part of industrial policy. Constant measurement of assumptions, tools and streams of support allows making necessary adjustments in cluster policy assumptions and forming next stages of this policy. Clusters and cluster initiatives are currently one of the most frequently used tools of industrial and technological policy and innovation policy in individual countries. Undoubtedly, one of the elements of the country's

innovation policy should be an effective and targeted cluster policy. Clusters are local innovation systems and can form an effective part of national innovation systems.

No single model of cluster policy exists; each country adapts it to its own needs and political, economic and social environment. Cluster support programs are being developed in many countries, demonstrating that cluster policy is a crucial component of economic policy geared to local, regional and national development. In some economies, especially highly-developed ones, the cluster policy is intertwined with the innovative policy; and in countries at a different stage of development, usually in the catching-up or developing countries, it appears in the context of the industrial policy. It is not possible to create and accept just one model for cluster policy as there is no model for clusters. It all depends on the level of development of the country and national development policy, so every country needs to implement its own model strictly corresponding to the national priorities.

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