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Problems and Perspectives of Implementation of Cluster Initiatives in Business in Developing Countries

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Abstract:

The authors define the notion and meaning of cluster initiatives in business and analyze the tools for support for cluster initiatives in business which include regional cluster policy. The authors consider the role of state bodies and mechanism of their influence on development and functioning of cluster, study the successful experience of state support for cluster initiatives in entrepreneurship of developed countries, and determine the problems of implementation of cluster initiatives in business in developing countries. As a result of the research, the authors conclude that a key problem of implementation of cluster initiatives in entrepreneurship in developed countries is ineffective state cluster policy. The authors suggest self-regulation of cluster as a perspective mechanism of implementation of cluster initiatives in business in developed countries.

Key Words: *Cluster Initiative, Cluster Policy, Business, State Regulation, Self-Regulation, Developing Countries*

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1. Introduction

Under the modern economic conditions, the issues related to competitiveness and sustainability of development of country, region, or specific enterprise become very important. At that, regional competition is a very significant factor which stipulates the increase of efficiency of national economy.

It is obvious that sustainability and competitiveness of country or specific region is determined by the level of technological development. Experience of the most economically developed and competitive countries of the world show that one of the most efficient mechanisms which facilitate the increase of sustainability of territories is implementation of cluster initiatives in business.

There is constant and quick exchange of information between cluster members which facilitates the increase of competitiveness of not only enterprises of cluster but of economy of region (country) on the whole. Cluster approach views such categories as interconnection and cooperation of state, business, science, and education; competitiveness; informational and communicational networks.

Advantage of cluster approach consists in presence of effective tools which allow stimulating economic development of region which consists in creation of new jobs, increase of assignments to the budget (regional and federal), growth of GRP, development of investment potential of region, increase of competitiveness of region, etc.

However, this direction in economic practice of developing countries received insufficient distribution, which determined the necessity for development of methodological issues of usage of cluster approach to sustainable development of developing countries – which is viewed in this research. At present, many countries of the world pay a lot of attention to the issue of clustering. This is due to the fact that clusters are viewed as a tool for increasing competitiveness and investment attractiveness of country, region, and entrepreneur, and as a tool for stimulation of innovative activities.

An important tool for support for cluster initiatives in business is regional policy, role of state bodies, and mechanism of their influence on development and functioning of cluster. Cluster initiative, as a rule, is understood as coordinated actions aimed at the increase of competitiveness and growth of regional sectorial cluster with direct participation of key members of cluster: companies, associations, educational establishments, etc.

2. Methods

Being a new project-oriented approach to stimulation of cluster development, cluster initiatives are a specific tool of cluster policy. As experience of developed countries shows, support for cluster initiatives is provided by all levels of authorities – federal, regional, and municipal, but the forms of support are different at each of the above mentioned levels.

Let us view some examples of the most successful development of cluster initiatives. Cluster initiatives within regional policy of Austria (Upper Austria) have a character of non-financial support for information flows, preparation of staff, and cooperation of cluster companies with R&D laboratories. Regional cluster policy of Belgium (Flanders) has been conducted since 1994. The policy is conducted in two stages. At the first stage, the Flanders government registers clusters, and then non-commercial organizations of cluster can receive subsidies from government for covering operational expenses. At the second stage, cluster companies can receive grants and credits for R&D, as well as for implementation of innovational projects (Anfinsen *et al.*, 2014).

Regional policy of support for industrial clusters in Great Britain (Scotland) is performed within the program “Networks of Scottish enterprises”. Four directions of clustering were chosen: biotechnology, food industry, oil and gas production, and semi-conductor industry (Alberti *et al.*, 2014).

Hungary, Poland, Czech Republic, and Slovenia support clustering through special programs. In Hungary, EUR 26 billion were allocated for creation of technological platforms and innovational clusters during 2005-2009. Besides, EUR 80 million were allocated for strengthening of ties between universities and industry, EUR 7 million – for support of innovational business, and EUR 50 million – for expansion of network of business incubators which support small companies at early stages.

In Denmark, cluster industrial policy is the basis for development of tools for increasing the efficiency of cluster in consensus between companies of cluster and political institutes at national and regional levels (Carneiro *et al.*, 2015).

In Finland, the measures of stimulation of regional cluster initiatives include: formation of entrepreneurial networks through cooperation of various subjects of regional economy and re-training of staff for SMI companies. In France, regional policy of support for cluster initiatives is based on creation of local production systems and went through two stages. At the first stage (1998-1999), out of 202 projects, 96 were chosen as official local production systems. At the second stage, the selected projects and companies can pretend to financial support from the state. In the period of 2007-2014, the state spent EUR 1.5 billion for support for 66

clusters, among which are 16 innovational ones ([Mihajlović](#), 2014). Beginning from 2003, regional clusters in Germany have been developing in close cooperation with state authorities; it is especially true for high-tech clusters which receive financial support both from local and federal sources.

The Ministry of education and research of Germany provides significant support for exchange of knowledge in such spheres as informational technologies, biotechnologies, and healthcare. In Italy, the main goal of regional policy is formation of special centers (scientific parks, centers for innovational support) and intermediary structures for development of experimental base, R&D, HR training, and technical help of SMI companies.

In Spain, cluster policy in the region has been conducted from 1991. State support is provided in the form of partial financing of expenses of main subjects of clusters. Since 1998, the REGINN (Regional Innovational Systems) program has been working in Norway; its main goal is stimulation of cooperation between companies and regional research centers. Financing of this program, as well as management, are conducted at national level ([Geldes et al.](#), 2015).

In Portugal, an important goal of the program of integrated support for innovations at regional level is formation of innovational clusters, as components of national clusters. Cluster policy of Canada received active support at the level of provinces, which consists in financing of scientific development, realization of educational programs, attraction of external investments, and provision of corresponding services. A leading role in management of cluster policy at the level of provinces belongs to agencies of regional development which are managing companies with province government; their function includes a wide range of issues – from creation of educational programs to renewal of all key infrastructures for cluster needs ([Wamboye](#) and [Adekola](#), 2013).

3. Discussion

The most successful example of management of implementation of cluster initiatives at municipal level is the project of cluster development of Greater Edmonton. During 2002-2005, this project should provide 38,000 jobs, increase of GNP by \$2.6 billion, growth of annual real income per capita by \$1,840, and \$60 million of budget revenues of Greater Edmonton by means of taxation of property/business ([Xavier Molina-Morales et al.](#), 2015).

In the U.S., clustering receives support from regional level in the form of "institutes of cooperation" which consist of representatives of local administration, industrial groups, universities, and research laboratories. Relations between universities and

business structures are set in the U.S. law (procedures of technologies transfer). In Japan, role of regional authorities in the issue of stimulation of cluster initiatives is brought down to possibility for realization of the above mentioned initiatives by means of own resources, creation of venture business and new productions. At present, there is “Knowledge cluster initiative” program which stimulates the development of clusters in 18 regions of the country. Its peculiarity is that the core of cluster is comprised of regional universities ([Reveiu](#) and [Dârdală](#), 2015).

Methods of government interference into economic development are corrected under the influence of determined “failures” of the state. The most significant of the latter are expenses of traditional sectorial and regional approaches to economic policy, as well as incoordination of various branches and levels of authority, which explains the perspective of implementation of cluster approach (Popkova and Tinyakova, 2013b).

As a matter of fact, cluster policy unites industrial policy, regional policy, policy of support for small business, policy for attraction of foreign and internal investments, innovational, scientific & educational, and other policies. Implementation of cluster policy supposes the complex of measures of mostly regulative character which are aimed at elimination of obstacles hindering the cooperation and interdependence between various members of cluster. State authorities play an important role in the processes of clustering. State policy can be necessary for perfecting existing clusters or developing emerging clusters. The role of public authorities in the development of clusters consists in creation of infrastructure for cluster activities and in direct influence on the factors of competitiveness. There are many tools which are fit for implementation of the goals of cluster policy, but due to the unique character of clusters, it is impossible to distinguish universal approaches. There are five most common types of cluster policy (Popkova and Tinyakova, 2013a):

- mediation policy, aimed at creation of conditions for constructive dialogue within cluster and strengthening of cooperation between its members;
- policy of demand stimulation – formation of consumer preferences in region, development of related and supporting sectors of economy, state order;
- educational policy, which aims at formation of necessary competences in region;
- policy of stimulation of external connections, which consists in elimination of trading barriers, protection of intellectual property rights, and realization of infrastructural and investment projects;
- policy of creation of favorable structural conditions: macroeconomic, institutional, etc.

However, the fact that clusters promise potential profit cannot be an argument for categorical implementation of cluster policy. Development of recommendations as to its implementation requires detailed and impartial analysis. Problems which hinder the implementation of cluster approach can be divided into two large categories: difficulties which are peculiar for implementation of cluster policy as it is and problems emerging from specifics of socio-economic environment in specific region. The main peculiarity which complicates the implementation of any cluster policy is significant differences between clusters depending on their sectorial belonging, location, and internal organization.

At present, competitiveness, which is achieved through creation of certain structural conditions, is declared as the goals of development. At that, borrowing successful strategies is viewed as means of quickening of territorial development and its achievement with the lowest possible expenses.

That's why the most urgent problems which are faced by developers of cluster policy include the dilemma of so-called "better practices". Unfortunately, governmental programs do not always reflect the fact that measures for cluster development which proved their workability in one case could be useless or even undesirable in another case. This causes the necessity for evaluation of practicability of use of some or other tools of cluster policy in regard to specific situation (Popkova *et al.*, 2013).

Besides, the practice of seeking the same goals brings forth another fundamental problem – wide expansion of clusters with the same specialization. Being inspired by popular "better practices", authorities focus on innovational clusters, trying to increase the competitiveness of territory. However, supporting these clusters, governments often ignore the issue of availability of real preconditions for their creation.

Another problem is political engagement of the very term "cluster". Many regions actively use clusters as modern and popular brand. Very often, authorities call some industrial structure a cluster, trying this to attract additional attention and investments into region. These types of clusters are characterized by huge support from authorities, and they are preferred due to political reasons, and not as a result of detailed analytical process. The basis for stimulation of these clusters is the belief that political efforts can create clusters on a relatively unfavorable basis. As a rule, these politically dependent clusters do not have critical mass – neither have they many other sources of competitive advantages which facilitate organic development. Besides, complexity of realization of cluster policy consists in the fact that it is supposed to combine the interests of different parties involved in the process of clustering, stimulate their development in view of multi-aspect (sometimes -

opposite) interests of cluster members. Another important moment is specific conditions of developing economy.

In order to solve problems related to realization of state policy of management of cluster initiatives in business, this research offers self-regulation of cluster entity. Transition to self-regulation should stimulate enterprises to the increase of quality of goods and services and facilitate transparent relations between organizations – in particular, between large, medium, and small business. Self-regulation in cluster can facilitate, together with tools of state regulation, the achievement of following goals and tasks:

- development of the system of support for sectors and particular enterprises which have export potential, for the purpose of strengthening of region's position in external markets of specialization;
- formation of conditions for development of new export specialization and expansion of sales markets, including by means of development at regional level of effective system of stimulation of members of foreign economic activities, support for participation of region's enterprises in competitions for the right of participation in international projects, subsidies – which are provided on a competitive basis – for the development of production for creation of competitive export products;
- implementation at region's enterprises of progressive systems for management of quality of products and its certification according to international standards;
- development of the system of informational support for region's enterprises regarding specialization markets and development of infrastructure of foreign economic activities;
- development and provision to regional authorities of projects of legislative initiatives aimed at regulation of regional market for the purpose of increase of competitiveness of local products, protection of enterprises' rights, and reduction of the level of monopolization of regional markets.

Managerial personnel of self-regulating organizations, unlike the officials, would not take money for membership, but this requires the law on mandatory enterprises' joining self-regulation guilds and associations. As there will be competition between such organizations, and the presence of unprincipled and unreliable members will damage all organizations and may lead to its liquidation, it is necessary to create conditions for stable works of self-regulating organization.

Besides, self-regulating organizations bears responsibility, including financing one, for the work of all of its enterprises. Functions of self-regulating organizations of region's cluster should include:

- development and confirmation of standards and rules of work, rules of business and professional ethics of cluster enterprises;
- development and confirmation of rules and terms of admittance to self-regulating organization of enterprises, additional requirements to the order of provision of property responsibility of members during conduct of activities, setting the size of membership fees and the order of their payment;
- representing interests of their members in their relations with public authorities and international professional organizations;
- admittance and expulsion from self-regulating organization according to terms provided in internal documents of self-regulating organization;
- control for activities of enterprises in observation of requirements of laws and other legal acts, standards, and rules, as well as rules of business and professional ethics;
- keeping the list of members of self-regulating organization of enterprises and providing information of the list to interested persons according to the procedure established by authorized body;
- organizing informational and methodological provision of its members.
- Self-regulating organization should have the right:
 - to represent interests of its members in relations with public authorities and international professional organizations;
 - to contest in the court the acts of public authorities which violate the rights and legal interests of all or part of their members;
- Self-regulating organization of enterprises of corn cluster is obliged to:
 - fulfill the requirements of federal laws and other legal acts;
 - form compensational fund for provision of responsibility of their members before consumers of services in the spheres of activity of cluster and by third parties;
 - apply measures of disciplinary influence, envisaged by internal documents of self-regulating organization, regarding their members;
 - exclude from the members of self-regulating organization of enterprise;
 - organize the professional training of employees of enterprises of self-regulating organization.
- Self-regulating organization should pay special attention to the increase of professional qualification of enterprises' staff, used systems of management, and expansion of positive experience. This should be performed by organization of short-term and active seminars and meetings, scientific conferences, round tables, and master-classes.

4. Conclusion

Special attention should be paid to the issues of territorial planning of development of cluster in region. It is important to note the necessity for cooperation not only between enterprises-members of self-regulating organization but also between regional authorities which can help solving the issues of infrastructural development. Within self-regulation, there is a good perspective for development of cooperation – especially, between medium and small business, which will allow reducing expenses at various stages of production, processing, and realization of products.

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