

The Instruments to Maintain Cluster Activities within the Territory of the Region

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Abstract — Availability of special economic zones within the territory of clusters raises the level of coordination and confidence between the cluster participants, strengthens industrial cooperation and increases the frequency of transactions between them. Within the frames of cluster development the emergence and evolvement of special economic zones reflect the level of governmental support both on federal and regional levels. Special economic zone situated on the territory of regions was formed according to the following principles: cluster approach to make provisions for efficient manufacturing relations, steady development of the territories at their intensive utilization, sustainable accounting of ecological, economic, social and other factors at implementation of planning and engineering infrastructural assets of special economic zone.

Keywords — *special economic zone, cluster, region.*

I. INTRODUCTION

The process of clustered formations evolvement within the frames of regional economic development implies inclusion of governmental and other institutions, for instance, universities, standard agencies, research centers, adjustment training centers and professional organizations including structures providing specialized support in the sphere of staff training, informational and technical support. One of the advantages intrinsic to the availability of special economic zones within the cluster territory stems from the fact that as compared to market transactions between the participants and institutions removed from each other but being situated in one geographic space the high density of their industrial cooperation and frequency of reiterative transactions raise the level of their coordination and credibility. Clusters-groups of related industries are operating in a given location. [5] A strong cluster should increase the productivity of participating firms. [6]

Improving the cluster infrastructure through cluster policy:

1. Measuring the economic impact of cluster policies and programs.
2. Identifying financial resources to support cluster policies.
3. Improving the cluster infrastructure through cluster policy.
4. Identifying the main objectives and activities of european cluster program. [7]

At present, for example, within the territory of the Republic of Tatarstan the following tools of state support rendered to economic operators of the region are formed and implemented:

Grants and subsidies: reimbursement of expenses on credit, leasing, technological connection, product promotion, energy-efficiency measures, innovations, on governmental and municipal tasks performance and employee training and education.

- Credits and loans.
- Investments: shared and venture capital financing.
- Warranties and banker's guarantees: guarantee credits, leasing, export transactions guarantees.
- Contracts for implementation of research and experimental development.
- Agricultural activities insurance.
- Leasing: financial leases.
- Preferential tax treatment.
- Property support: formation of innovation business incubators, skill-intensive clusters and technopolice.
- Special economic zones in the region: industrial production special economic zones and technology development special economic zones.

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Therefore, creation and development of special economic zones within the region acts as an instrument of support for the regional economic operators carrying on business on site the territory of cluster formations.

The following principles of objects arrangement in Alabuga special economic zone situated inside the territory of the Republic of Tatarstan can be distinguished:

- Cluster approach to provide the best possible manufacturing relations
- Providing steady development of territories at their intensive use
- Balancing of environmental factor, economic, social and other aspects at planning and construction of infrastructure facilities in Alabuga special economic zone.

II. OBJECTIVES

The priority measure at implementing cluster approach within the territory of Alabuga special economic zone is the creation of the following large aggregates: chemical/petrochemical cluster, machine-building cluster with automotive parts and components manufacture, constructional materials cluster and foodstuffs processing cluster.

Today we could define the following benefits to the firms operated as a part of clusters, as shown in Table 1.

At present the steady territories development is understood as provision of favorable conditions for the safety and human vital needs at implementing town-planning activities, localization of the adverse impact of economic and other human activity upon the environment by means of natural resources protection and their rational use to serve the interests of the current and future generation. The restricted area of Alabuga special economic zone necessitates the intensive use of land resources.

TABLE 1. THE SIX KEY BENEFITS ACCRUING TO FIRMS THAT OPERATE AS PART OF A CLUSTER. [8]

Benefit	Explanation
Collective action of enterprises	A more cogent voice for lobbying the government
Innovation and productivity	Companies gain knowledge early about evolving technologies, component, machinery availability, servicing and marketing concepts
Access to specialized information	Members of a cluster get access to extensive market, technical and competitive information accumulated within a cluster, make information more transferable.
New business formation	New suppliers proliferate within a cluster because a concentrated customer base lowers their risks and makes it easier for them to spot market opportunities.
Lower transaction costs and access to specialized supply base	Clusters offer deep and specialized supplier base. Sourcing locally lowers transaction costs for producers.
Benefits to the state and local authorities	This leads to more efficient and effective use of public and private resources. It helps a region or state address critical issues such as human capital and workforce development, infrastructure planning and creation, and rural and community development.

III. RESEARCH METHODOLOGY

Some authors defined clusters into following types: creative-in-trade, creative-in-local, routine-in-trade, routine-in-local as shown in Table 2. [2]

TABLE 2. FOUR TYPES OF COMBINED INDUSTRY AND OCCUPATIONAL CLUSTERS.

Creative occupations	Creative-in-traded	Creative-in-local
Routine occupations	Routine-in-traded	Routine-in-local
	Traded clusters	Local industries

Reciprocity of the cluster formation and the industrial enterprise being included therein and focused on maximal market price in strategic outlook and their interaction with the external environment of direct effect must be considered as institutional inter operating with governmental bodies, financial market organizations and business community in order to provide rational corporate management, as following:

- Reciprocity of the cluster industrial enterprise state. Within the frames of such interrelation formal institutions will be presented by standard-legal acts, instructional and explanatory letters, industrial establishment requests and court decisions. Good business practices at inter operation of entrepreneurial and governmental structures (including those based on status rent) as well as the relations emerged consequent on either observance or non-observance of a social contract can be related to informal institutions. The relations emerging based on formal delegations of the law-enforcement and regulating bodies must be designated as institutions of enforcement while lobbying, for instance, can be referred to institutions of informal compulsion.

- Reciprocity of the cluster industrial enterprise ↔ financial market institutions. Within the frames of such interrelation formal institutions are designated as contractual relationship resulting from the industrial enterprise transition to public financial activities. This contractual relationship comprises both legislation enforcement and execution of arrangements necessary for rational activities of financial markets. Informal institutions in this case are designated as not only good business practices but the relations resulting from either possible or actual disclosure of information of the industrial enterprise. Under certain conditions the above mentioned institutions can act as the institutions of enforcement.

- Reciprocity of the cluster industrial enterprise ↔ business ↔ community. Formal institutions emerging within the frames of this interrelation are regulated by indentures. Informal contractual relationship based on trust or resulting from usual business practice and interpretation of information about public company – economic entity in the industrial field are among informal institutions. As well as in the previous category of interrelationship the informal institutions can act as the institutions of enforcement.

As can be seen from the above, implementation of sound principles of governance by the industrial enterprise being included into a cluster formation implies consideration of all prospective and retrospective changes happening in institutional environment according to three directions discussed above. For this purpose it is necessary to take into

account the fact that variation of institutional relationship exercises influence upon the industrial enterprise both directly and in a vicarious manner through the other elements of the cluster.

IV. FINDINGS AND ANALYSIS



As the analysis made in the given paper has shown, apart from the industrial economic entities the structure of cluster formations also comprises such infrastructure objects as logistic organizations, transportation agencies, legal, consulting audit and other specialized organizations, raw exchange markets, innovation objects (industrial and technology parks, business incubators), research centers, institutions vocational education and training and social security services to provide their functioning. Special economic zones appear to be the most important representatives of this infrastructure as the state support of the regions development.

TABLE 3. THE RESULTS OF FINANCING SPECIAL ECONOMIC ZONE (SEZ) DURING THE PERIOD OF 2012-2014 ON THE TERRITORY OF RUSSIAN FEDERATION. [9]

Indicator	2014	2013	2012
Number of residents, unit	64	53	32
Quantity of the workplaces created by residents of SEZ on the SEZ's territory, person	3377	3159	1814
Volume of investment created by residents on the SEZ's territory, including capital investments, millions of rubles.	49090	31430	17530
Volume of proceeds from sales of goods, works, services, minus a value added tax and excises, millions of rubles.	53447	48069	29725
The volume of means of the federal budget, regional and local budgets of the objects of engineering, transport, social, innovative and other infrastructure of SEZ directed on financing of creation, millions of rubles.	28306	15729	13598
The volume of the taxes paid by residents to budgets of all levels of the budgetary system of the Russian Federation, millions of rubles.	3938	3050	2955
The objects of engineering infrastructure put into operation, pieces.	75	36	21

V. CONCLUSIONS

The model of interaction of the elements of a cluster promoting growth of the market consists of the following elements: objects of infrastructure, decisions of public authorities, subjects of entrepreneurship, scientific organizations, the process of diversification and movement of labor as shown at the Picture 1.

The Petrochemical cluster on the territory of the Republic of Tatarstan has grown since 2008. And now the enterprises of this cluster have got the following advantages as shown in Table 4:

PICTURE 1. MODEL OF INTERACTION OF THE ELEMENTS OF A CLUSTER PROMOTING GROWTH OF THE MARKET

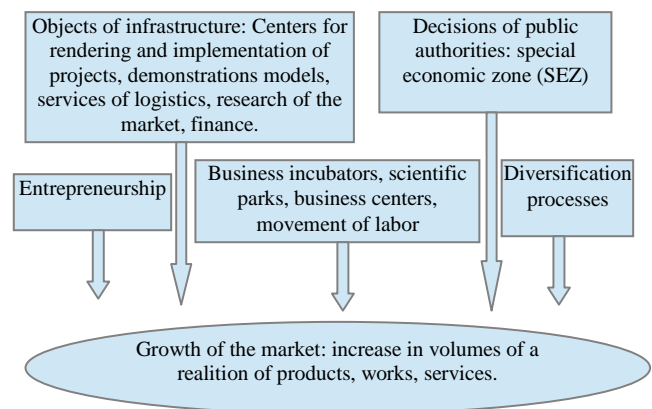


TABLE 4. ADVANTAGES OF THE ENTERPRISES – PARTICIPANTS OF PETROCHEMICAL CLUSTER ON THE EXAMPLE OR THE ENTERPRISES OF SMALL AND MEDIUM BUSINESS WHICH ARE CARRYING OUT THE ACTIVITY ON THE TERRITORY OF NIGNEKAMSC'S INDUSTRIAL DISTRICT – PARTICIPANT OF PETROCHEMICAL CLUSTER.

Advantages	Definitions	Example
Collective actions of the enterprises – participants of a cluster.	Possibility of lobbying interests in the authorities	The Association of processing a shelter of polymers on territory of petrochemical cluster in the region is created. The purpose of creation the association is implementation of investment projects.
Innovations and productivity	Ensuring fast access to material and non-material resources	The anchor enterprise lets out a wide range of polymeric materials: plastics, rubbers, components of fuels, products of organic synthesis, gases.
The guaranteed ensuring access to specialized information.	The information resources in cluster are characterized by high degree of mobility	Development and implementation of the projects on interaction of experts of the enterprise "Nignekamckneftechim" and Kazan Federal Volga-region University.
Formation new structures in business, decrease in expenses, ensuring access to the entering resources.	The high level of concentration of potential suppliers of resources and users of a product are reduced the level of risks.	For example, existence of special economic zone in a cluster provides tax privileges and objects of infrastructure.
Advantages to government authorities	High efficiency of the resources of federal budget	The productivity of state investments in the terms of financial instability are higher than in other territories.

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