

New Perspectives of Organization and Reproduction of Regional Industrial Policy

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Abstract: Modern studies related to the specifics of reproduction processes increasingly focus on the functional role of industry in the development of national economies. Commonly, this problem is associated with the process of social transformation which has led to widespread significant changes in the structure of national economies, accompanied by the creation of new economic activities and new socio-economic relations. The present study provides justification of transformational industrial policy stimulating the development of vertically integrated entities and gives evidences of inefficiency of simple corporate entities (which are a typical example of horizontal integration leading to the simple monopolization). This will allow to implement the integration component of the industry on the world practice-proven principles of cluster development.

Key words: Industrial development, integration, integrated entity, cluster, reproduction, Russia

INTRODUCTION

Now by scientists and experts it is almost standard the key moments distinguishing economy of knowledge from the industrial economy based on traditional factors of production work and the capital are allocated. First, while in traditional economy production is followed by reduction of major factors in economy of knowledge information and knowledge are not exhausted and extend between all participants of economic process and are increased greatly (therefore, it is considered that the economy of knowledge is not economy of limited resources and benefits and it is rather, represents abundance economy). Secondly, the information and communication technologies used in economy of knowledge promote formation of the virtual market platforms minimizing time and transport expenditure of access to resources and production (therefore in economy of knowledge the expenses mediated by effects of isolation, localization, territorial limitation considerably decrease).

The economic integration presented by a set of specific communications and the relations of economic entities reflects essence of the post-industrial reproduction processes caused by rapprochement and adaptation of self-regulating and spontaneous economic systems of which activity economic interest of independent economic entities and the public labor division providing economic growth is the cornerstone (Tatuev *et al.*, 2015).

From this it follows that as the main link of integration and economic growth, first of all, the relations of economic entities act. As driving force of economic integration, the relation of economic entities have to be directed to achievement of optimum scale of activity, including by cooperation and cooperation with other companies within manufacturing lead times.

Basis of the effective solution of practical problems of realization of economic integration make development of territorial and production complexes and economic clusters.

MATERIALS AND METHODS

The methodological basis of work, first of all, is presented by requirements and the principles of system approach. System approach to a problem of industrial integration, potentially, allows combining private models of economy and single questions in the general economic and political concept, considering at the same time all scale of communications and the relations in economy and all complex of parameters that promotes effective realization of policy of cluster integration. In turn, realization of policy of cluster integration gives an opportunity of development of the economic entities participating in integration associations. It allowed providing unity of a subject and method of a research, necessary and sufficient reliability of theoretical results, the revealed tendencies and practical recommendations which are contained in the thesis. As concrete main

scientific receptions and methods of research teoretiko-analytical generalizations, the functional and structural analysis, statistical groups, the correlation and regression analysis, settlement and constructive, comparative and comparative methods, analytical graphics were applied.

RESULTS

Let's reveal a number of important characteristics of transformations of a reproduction role of the industry in post-industrial economy. In particular, it was established that for the modern industry the high level of development of intra-branch and interindustry communications is characteristic. Thanks to it industrial branches act as Basic Element of integration and cooperation of a set of productions in national economy.

Meanwhile, these aspects are not so obvious. What, often, leads to understating of a role of the industry within national economy. And as a result, to administration by the residual principles, i.e., prime orientation of state regulation machineries to other sectors of economy. However, development of unfortunate trends in industrial sector, owing to integration specifics, can do considerable harm to all economy in general. In similar conditions active participation of the state in stimulation of growth and development of industrial types of economic activity is required. It is necessary to build the modern effective economic policy of industrial development focused on use of industrial sector of economy as a basis of modern economic system of the developed state in the country. At the same time, the close attention has to be paid to the choice of the priority branches of industrial production promoting expanded reproduction at all levels of economic system.

When forming system of state regulation of developments of the industry and integration educations on its basis it is important to provide effective interaction of authorities of all levels taking into account territorial orientation of public policy of development of industrial educations. This step will allow to exclude a possibility of emergence of the resisting interests. However, for this purpose it is necessary to define the corresponding effective mechanisms and instruments of the state impact on processes of intra-branch and interindustry cooperation of productions that in total will allow to create institutional and economic basis of modern expanded reproduction: to increase the list of productions "kernels" and "covers" of vertical integration associations; to increase their competitiveness and so forth and also to provide development of social and economic interrelations, an entrepreneurial activity and relationship of economic agents.

Key provisions of modern industrial policy are (Risn, 2010): observance in the course of development and realization of industrial policy of unity of interests of the state and business that promotes steady increase in efficiency of industrial productions the main condition of expansion of processes of integration and cooperation; the complex use of state regulation machineries, municipal management and corporate management aimed at providing different rational consumption of administrative and productive resources; achievement of effective balance between social and economic aspects at statement of the purposes of industrial policy. At the same time special attention should be paid to contrast of characters of social and economic components of industrial policy. So, social aspects are connected with ensuring the parameters defining quality of life and economic with parameters of effectiveness of economic activity (profit); simultaneous realization of a number of the main functions. The regulating function promotes definition of the strategic direction of development of industrial kinds of activity. Resource function is responsible for attraction of necessary factors of production which the state and municipal authorities, businessmen and investors have. Innovative function provides the close contact of production and science promoting release of innovative production. Social function defines specifics of use of a manpower. Function of ensuring national security corrects productions proceeding from need of observance of high level of homeland, social, economic and ecological security.

Thus, it is possible to say that the industrial policy represents a complex of the actions assuming definition of main objectives and tasks, the choice of the priority directions, establishment of subjects and objects, planning of final effects, development of criteria and an assessment of efficiency of the state intervention in industrial sector of economy. At the same time, realization of industrial policy requires creation and use of a certain mechanism which basis is made by system of the legal, economic and organizational measures directed to creating favorable conditions for the formation of the modern competitive industrial production which is integrating various forms of intra-branch and interindustry interaction and also acting as base for sustainable social and economic development of the territory. Coherence of all components of the public industrial policy is necessary for the greatest efficiency of this mechanism: external economic, macroeconomic, regional, local, economic, social, ecological, etc.

Meanwhile, the tasks designated above and conditions of their realization cause need for development of the separate direction of the public industrial policy within which special attention will be paid to use of the effects of integration and cooperation and according to it

are optimization of the mechanism of its realization. Such direction can be realized in the sphere of industrial policy, both on national or regional and at the local level. At the same time, bases of cluster policy can make its basis.

Development of clusters is the new phenomenon, peculiar to post-industrial economy and its highest stage to a large extent economy of knowledge. However, despite wide circulation of cluster formations in practice of the most developed countries of the world, many experts adhere to a position about impossibility of artificial creation of these integration educations that is confirmed today by lack of accurate definition of cluster policy and also its criteria and places among the existing tools of economic policy of the state (Abdulkadirov and Samigulova, 2013).

The position according to which process of formation of clusters has natural character is widespread and intervention of the state in it can provoke emergence of destructive consequences. In particular, there is a set of examples when formation of the clusters financed by the government budget happened over several decades and demanded heavy expenses of public funds. Proceeding from what, the role of the state in this process comes down to creation of optimum conditions for independent formation and development of clusters (Hulhachieva, 2013).

However, there are also examples of constructive actions of the state during creation of new integration associations. In particular, during implementation of large-scale investment projects development of new branches of economy which acted as the center of gravity of other types of economic activity in total forming a cluster subsequently was provided. But here to be necessary to notice that development of branches which can act further as a cluster kernel will not necessarily lead to its actual education. Besides branch elements (infrastructure, resources, labor, etc.) successful formation of a cluster demands development of the close relations between participants focused on extraction of a common advantage (Ekutech and Polidi, 2013).

Therefore, even in the presence of the created branches capable to act as a basis of integration associations, the actions directed to activation of this vector are necessary. In particular, elimination of administrative barriers of use of potential of the interconnected development is necessary. However, there is a danger of formation of the horizontally focused integration associations which subjects do not enter the innovative focused competitive fight and will organize corporations, trusts, syndicates or the closed networks, the monopolistic educations limiting the competition and focused on extraction of an exclusive rent.

Thus, it becomes visible that process of formation of any cluster cannot carry only natural or only artificial

character. Formation of a cluster represents set of evolutionary (inertial) and purposeful, reformative actions. Creation of a cluster as was already mentioned is quite long process demanding considerable efforts from a large number of subjects. In this regard, the key moment when forming a cluster is not the scale of participation in this process of the state and the choice of the most perspective spheres and effective instruments of management.

Within the concept of “a threefold spiral”, the state is considered as one of three equal parties of a cluster, each of which possesses specific functions. A basic position of this approach is the statement about impossibility of realization of effective innovative development without joint activity of the state, business and scientific community. Each institute provides system of production of knowledge by creation of hybrid institutional forms that reduces uncertainty (Dejina and Kiseleva, 2007).

However, in practice the relations of “a double spiral” are most widespread: the state-science; business-science; the state-business.

At increase in intensity and the general complication of innovative processes in society the bilateral relations are characterized by extremely low efficiency that is characteristic also of domestic economic system.

The problem of the state at development of a cluster consists in active mediation and also in elimination of a number of the failures of the market connected with discrepancy of private and public expenses and benefits. Often subjects of a cluster are characterized by weak interrelation. In spite of the fact that individual subjects in interaction create positive outer effects, subjects of a cluster are insufficiently interested in production of communications with other localized subjects that these externalities do not bring them obvious benefit (Sirotkina and Ahenbah, 2012). In many respects weak communications are caused by the high transactional expenses arising because of information asymmetry. And in this case the state, realizing function of the intermediary, can reduce information asymmetry, having acted as the guarantor of performance of obligations, having assumed a part of risks, etc. These measures promote increase in intensity of interaction between the organizations of a cluster and fuller use of potential of positive externalities. Thus, participation of the state in development of a cluster can be decisive, especially in developing states where the state is the main source of changes.

Based on the submitted provisions, it is possible to conclude that the public cluster policy has to have two main directions: development of clusters within a certain location (the region or the country) and development of a concrete cluster.

Table 1: The characteristic of types of integration of business from a position of obtaining regional effects*

Characteristics	Integration for the purpose of strengthening of the market power	Integration for the purpose of merging of production and financial centers	Integration for the purpose of innovative and infrastructure development
Extent of self-education of integration structures	High	Average	Low
Organizational forms	Concerns, syndicates, trusts, etc.	Financial and industrial groups, transnational and national corporations, holdings	Clusters
Integration types	Horizontal	Horizontal, vertical, diagonal, combined	Diagonal, combined, aryergardny
Effects for business	Control of the markets of raw materials and finished product, effects monopolies	Reduction in cost of the average cost of the capital, access to the capital, lack of deficiencies of investment resources and current assets	Obtaining synergetic and multiplicative effects
Effects for the region in the short term	Growth of the budgetary assignments, strengthening of social responsibility of business	Implementation of large investment projects, growth of employment in the region, business integration, a competition aggravation	Origin of innovative and production potentials, aggravation of the interregional competition, development of infrastructure
Effect for the region in medium-term and long-term prospects	Destruturirovany economies, decrease in the competitive status of the region, decrease in consumer value of a regional product	Growth of the budgetary assignments, strengthening of social responsibility of business, growth of the competitive status of the region, integration and monopolization of business by merges and absorption	Innovative leadership of economy of the region, growth of the competitive status of territories, formation of the powerful production centers
Directions of the public	To interfere with integration	Policy of a neutrality, monitoring of legal purity of transactions of merge and absorption	Assistance to development of integration communications

*The table is made on a basis: (Sirotkina and Ahenbah, 2012)

At the same time, have to act as main objectives of activity of the central authorities: advance of the idea of formation and development of clusters; formation and development of economic agglomerations through implementation of infrastructure projects including by means of the mechanism of public-private partnership; the information, methodical and educational support aimed at the development of clusters; interregional development of clusters; financing of regional development programs.

Development of clusters at the level of all country promotes creating favorable conditions for emergence of new clusters and has to be implemented by the central power. At the same time, regional authorities have to be directly involved in development of clusters in the territory of the region. It is necessary to distinguish from actions of the regional authorities:

- Identification and analysis of potential of formation of clusters
- Assistance in definition of the purposes, tasks and general strategy of a cluster
- Participation in cluster projects and assessment of their efficiency

At the same time, very important question is the choice of a form of integration of subjects of a cluster. So, high degree of aspiration of business to economic and spatial integration for the purpose of decrease in tactical risks, strengthening of control over the markets of resources and sale, obtaining synergetic and multiplicative effects is characteristic of the current state of economy. In scientific literature it is allocated the horizontal, vertical, combined, diagonal and aryergardny types of integration which prerequisites, effects and risks are well studied by both the Russian and Foreign

scientists. However, as it was shown in work earlier at a research of an integration basis of expanded reproduction during a post-industrial age, not all forms of integration lead to formation of a cluster within its modern substantial aspect. In particular, the horizontal forms of integration, in fact, leading to formation of various forms of corporate educations are aimed at extraction of exclusive benefit. And concentration of cluster projects on questions and problems of the spatial and economic integration considered from the point of view of interests and effects of economic entities at the micro level leads to omission of this moment. However, it is obviously not enough for development and use in practice of methodical approach to formation and development of integration structures for the purpose of extraction of the social and economic effects necessary for ensuring expanded reproduction and development of society.

Semidotsky and Shamara (2010) made a research of expediency of spatial and economic integration in relation to measures of public policy in the sphere of development of economy and the social sphere of the region. Relevance of this research was dictated by widespread discrepancy of the purposes and problems of development of business structures to the general direction of regional social and economic growth. For the solution of this problem authors defined need of development of forms and methods, the impact on integration and an interference of business allowing the state to make from the point of view of achievement of macroeconomic effects of impact on social and economic development of the region.

The developed characteristic of forms of integration associations from a position of formation of reproduction effects is presented in Table 1.

Information from the table allows to see that formation of clusters, despite positive economic and social impact, often cannot happen entirely under the influence of only market incentives. This circumstance, within public policy of regulation of reproduction processes, dictates need of carrying out a complex of the actions directed to stimulation of formation and development of cluster educations. At the same time, formation of the direction of actions of public authorities in the field of a clustering of regional economy has to include (Belousova and Koz'eva, 2012):

- Definition of a key branch which will form a cluster kernel
- Formation of the supporting branches the cluster periphery
- Development of the list of infrastructure projects and also instruments of their realization
- Creation of organizational and standard bases of infrastructure ensuring development of future cluster

DISCUSSION

Therefore realization of public policy in the field of stimulation of the expanded economic reproduction based on integration effects has to include development of the concrete mechanisms and tools directed to formation and development of economic clusters as the most effective (from the point of view of maximizing social and economic effects) forms of spatial and economic integration of business. The solution of the matters from the methodical and organizational point of view will promote increase in efficiency of the public industrial policy.

However, experience of developed countries shows that important feature of the direction of cluster policy as which purpose development of clusters within definitely location acts (the region, the country) is lack of need to create the new additional instrument of public administration. In this case, the cluster policy represents only a new way of use of already existing state administrative tools. In particular, realization of concrete actions for development of clusters can be defined by the place and a role of cluster policy in complex public economic or industrial policy. For example, in the majority of the countries of the European Union the cluster policy belongs to the sphere of innovative policy (Hachirov, 2014). Being in essence synthetic, the innovative policy is directed generally to target orientation and coordination industrial, scientific and technical, regional the politician and politicians of support of small business. And cluster approach, in this case, provides systematization and increase in an innovative component within the specified

directions and causes their organic introduction in innovative policy of the state. At the same time an important component of cluster approach is involvement of recently created institutes of development, mechanisms of support of innovative small and average business, science and technology parks and business incubators.

In turn, the actions aimed at the development of a cluster or cluster initiatives are the coordinated efforts of public authorities, business and scientific community for the purpose of development of clusters within a certain location (Steblyakova and Jautikova, 2011). Since, this interpretation has quite abstract character, application of the term "cluster project" which is meant as some kind of global investment project which purpose is (Stepanova, 2012) is represented expedient:

- The solution of the general for all participants of a cluster of problems, overcoming barriers to increase in competitiveness
- Ensuring integration of participants of a cluster (including potential)
- Development of innovative components (technological, marketing, financial, etc.)

The main objective of cluster projects is establishment and providing the mutually beneficial relations based on production and consumption of integration effects and promoting achievement of Pareto-efficiency. At the same time, the set of the purposes of implementation of cluster projects which all set can be divided into several types is allocated: development of a social capital; encouragement of expansion of the companies of a cluster; assistance of innovative activity and to distribution of technologies; training; commercial partnership; political lobbying (Proskura, 2012).

Thus, it becomes visible that realization of the effective economic policy of industrial development focused on use of reproduction imperatives of modern industrial sector of economy can be carried out on the basis of already available methods and mechanisms of public administration. At the same time, important aspect of this direction is the correct organization of a complex of separate methods and mechanisms. So, in Fig. 1 the scheme of realization of industrial policy which central element is stimulation of development of the vertically integrated educations is submitted.

From the scheme, it is visible that a main objective of industrial policy is ensuring expanded reproduction that it is dictated by constant need of social and economic development of society. At the same time, as it was shown above, expanded reproduction can be provided by

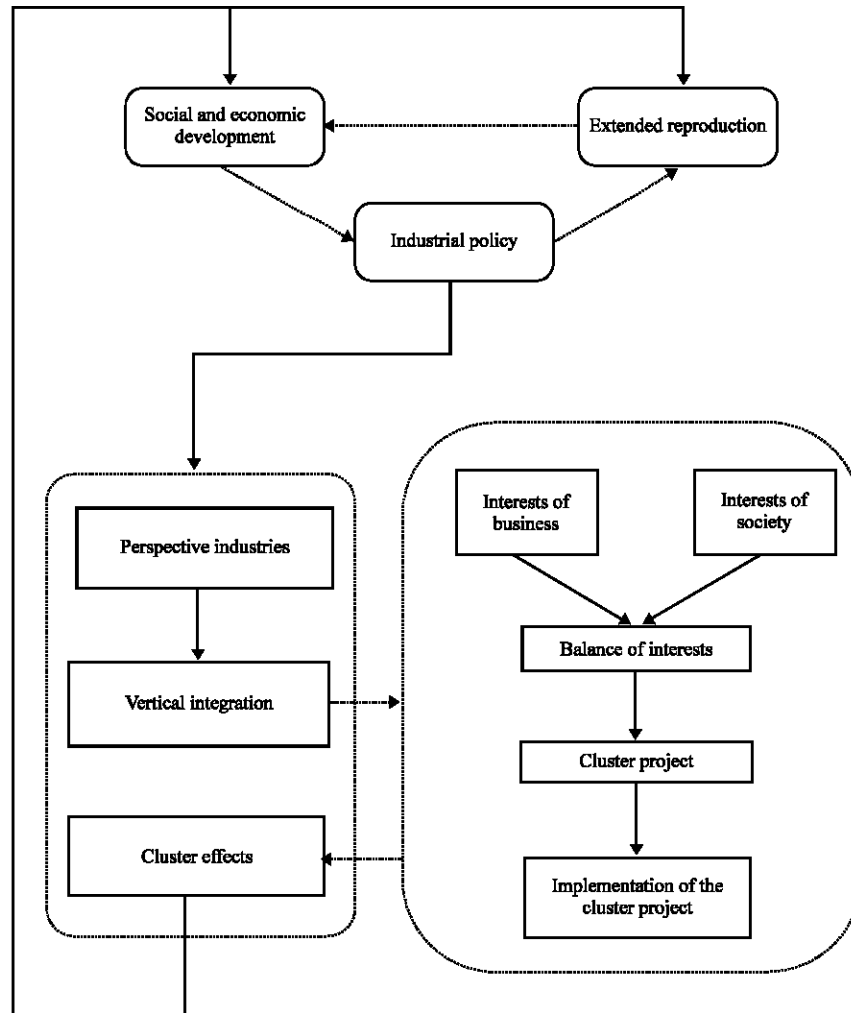


Fig.1: The scheme of realization of industrial policy which central element is stimulation of development of the vertically integrated educations (the scheme is made by authors)

stimulation of a certain form of the economic integration having natural prerequisites which need to be developed artificially. And it was established that the most effective way is vertical integration.

CONCLUSION

Proceeding their it, cluster design has to become the central element of industrial policy. In particular, the most perspective industries for the concrete territory which development is carried out in mainly natural way have to be selected. And productions have the high potential of association with other types of economic activity. For development of data of branches the cluster project considering interests of business and society has to be

formed. In turn, implementation of the cluster project will lead to manifestation of the cluster effects stimulating expanded reproduction and social and economic development of society. And in general, thanks to implementation of this scheme strengthening of a natural role of industrial sector of economy in modern economic reproduction will be provided.

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