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FORMATION OF INNOVATIVE STRATEGY OF REGIONAL INDUSTRIAL COMPLEX IN THE CONTEXT OF RESOURCE CONSTRAINTS

***Abstract.** The subject of research is the theoretical, methodological bases and practical aspects of formation of innovation strategy of regional industrial complexes in the context of resource constraints and volatile economic environment. The methodology of research is based on the scientific works on the problems of formation and realization of region development strategy. The results of the study suggested interpretation of the content of the "innovation strategy of the RIC".*

***Key words:** innovation strategy, region, development strategy, resource constraints, regional industrial complexes.*

Statement of the problem. The key factor of economic growth and competitiveness in world markets is the effective management of the national economy potential. However, this the most difficult issue cannot be solved without considering the combined capabilities, resources and reserves of regional industrial complexes (RIC) and the study of the stages of RIC strategy in the context of resource constraints.

Analysis of previous researches and publications. It should be noted that in recent decades the basics of forming and realization of region development strategy have received widespread research interest. The theoretical and practical aspects of the RIC effectiveness are considered in the

works of I. Alexandrov, V.Mikitenko, O.Dameshek, D.Stechenko etc. [1-8]. While acknowledging the theoretical and practical value of previous achievements, there is a need to study the problems of implementation of RIC development strategy in the context of resource constraints.

Statement of the problem. The main purpose of this work is the disclosure of the content of the RIC development strategy as an innovative and to determine the relationship between the RIC development strategy and the industrial innovation strategy for the region. The main scientific results of the study are based on the use of scientific methods such as: abstraction and comparison; analysis and synthesis; method of theoretical generalization.

The main material. The research the RIC was elaborated by the Soviet school of economic and social geography. This concept had practical implementation at different levels and within different industrial complexes of the former Soviet Union and continues to be relevant in Ukraine. However, the research in this direction was carried out not only in the USSR. For example, the basic are the works of R.Pratap and W.Isard [9; 10].

Turning to the disclosure of the RIC development strategy we recognize that it is an innovative strategy by its nature.

The combination of such features of the external environment as economic stagnation, financial instability, uncertainty of environment and resource constraints create a special framework for the development strategy of the RIC. Because resource constraints (which primarily should be considered from the RIC access in financial, technological, material and other resources through enhanced cooperation) have as an obstacle as a stimulating character. They are a factor in the escalation of threats to economic stability, however, require search for original, innovative solutions.

It should be noted that in recent decades the research on the foundations of formation and realization of strategy of development of regions has received widespread [1; 6; 8]. At the same time, the concept of "innovation strategy of the

RIC" is relatively new and has no clear scientific definition in the context of well-established instruments for its realization (i.e., a set of levers and controls).

In summary, the innovation strategy of the RIC may be defined as an integral part of the RIC management mechanism, including controlling subsystem that concerns the generation, assessment and selection of priorities, methods and tools for the formation, expansion and use of the potential of the real sector of the region economy.

The goal of the development of industrial innovation strategy of the region (IISR) is the realization of the benefits of the strategic toolkit that allows to consider weak signals of innovative changes and ensuring: 1) to develop a common position and a common understanding among all actors IISR transformations as in the innovative sphere of the region and within the RIC; 2) to identify the degree and forms of authorities participation (regional and municipal) in the development of innovative processes and in the implementation of specific management functions to the formation, build-up and use some capacity of the RIC; 3) determination of priority development directions; 4) consolidation of interests, efforts and capacities of all actors IISR on the implementation of selected development priorities of a particular RIC; 5) definition and adoption of basic principles of joint work for the regional industrial innovation system (RIIS) and development management of the RIC; 6) formation of positive image attractive to invest in innovative sphere of the RIC; 7) generate signs of sustainable human development in the region.

Will also give the list of strategic characteristics for the formalization of the optimal strategic set, which should be involved in the instrumentation of industrial innovation strategies at the regional level: 1) delimitation of the degree of state intervention in industrial innovation process: an active involvement of decentralized regulation, a mixed strategy; 2) grouping by stimulation object, according to which the policy can be designed to leadership in science, the diffusion of innovation in organizational, economic or structural

areas; 3) by stages of national competitiveness, on which the state strategy is: "transfer", the strategy of "borrowing", the strategy of "building up"; 4) by stages of the innovation process carried out within the framework of national borders: the strategy of targeting domestic or external demand.

The authors found that the high efficiency of the development management of RIC demand to consider the following classification of attributes that will protect the performance of RIC, in particular: 1) mesoregional strategies: a) self-providing (orientation to reduce the dependence of the regional economy from import of goods and intellectual services of other RIC); b) mobilization (mobilizing their own intellectual, industrial and raw materials resources and reserves); c) attraction of external resources (the desire to ensure its own development by attracting intellectual and other resources); d) the implementation of an extraordinary opportunity (and the desire to ensure the development of potential on its own industrial and academic base, geographical location, etc.); f) intellectual cooperation (the attempt to raise the innovation level through the implementation of joint projects with other regions); h) technological niches (focus on development and production of special products and technologies); g) intellectual and technological leadership (the desire to turn the region into an exporter of intellectual products and technologies); 2) state strategy of industrial regions development: a) selective priority development (concentration of public resources in selected priority RICs with a high level of sustainable development); b) uniform development - the alignment development by attracting more resources in underdeveloped RICs); c) proportional/ allocation of resources (distribution of resources in chosen proportion); 3) the regional dimension of industrial macrostrategy of the RIC that involves the use of strategic recruitment on: a) localization (the desire to implement macroinnovation strategy with using of potincial of highly developed regions); b) concentration (the pursuit of macroinnovation strategy by attracting and developing capacity of maximum number of RICs).

In our opinion, due to the fact that RIIS defines priority directions of RIC's development, the new software should include the formation of intellectual-cognitive sphere of innovations creation and services data processes. It can be argued that dominants of RIIS will determine the degree of creativity of innovations, which is planned to provide growth capacity and competitiveness of the RIC.

Among the factors that must be considered first when developing priorities of innovation sphere, are the following: 1) the market potential; 2) absorptive capacity of the created innovation in the region priority industries. Each of these factors may be expressed through aggregates. That is due to the ability to use the calculations and the methods of statistical processing, allowing to interpret the results. In particular, the innovations market potential in the region will depend on the expected volume of sales of innovative products, created on the basis of the industrial development of these innovations in the RIC. The absorptive capacity of region innovations will depend on the share of innovative products, created on the basis of implementation of innovations at industrial enterprises that have the priority for the RIC in the total volume of produced innovation products.

The difficulty of developing the innovation strategy is determined by the search and evaluation of strategic alternatives that achieve the goals of socio-economic and innovation development of a certain RIC. Moreover, due to changes in the external environment and the emergence of new prospects for the development the region's innovation strategy is subject to adjustments.

In the course of industrial development, the region innovation strategy should determine the organizational and economic mechanisms for the implementation of the strategy and the model that ensures its implementation (the optimal architecture for a particular RIC). The main stages of the development process and implementation of actions are shown in Fig. 1.



Fig. 1. The process of developing and implementing industrial innovative regional strategy that is optimal for a particular RIC

Strategic analysis involves the external and internal environment analyzing of the region for RIIS purposes. Under external environment we should understand the set of factors influencing innovation processes in the RIC. The analysis of the region internal environment includes the areas of implementation of management and econometric procedures. Namely, the analysis of: 1) the existing innovation strategy of the RIC; 2) the existing innovation system of the RIC; 3) innovative potential of the RIC. The most comprehensive method of strategic analysis that have received recognition from domestic and foreign scientists – is the SWOT analysis. Using this method, it is possible to identify, on the one hand, strengths and weaknesses, and on the other hand, the opportunities and threats contained in the external environment for the formation, increase and rational use of the potential of certain RIC.

The next step is the classification of strengths and weaknesses of those that are best to take into account the existing external opportunities and those that need strengthening, and cease to be strong, given the external threats. The

main task of strategic analysis is to find those strengths that provide unique competitive advantages of certain RIC with the favorable opportunities of the external environment. The SWOT analysis should summarize the most important results of the analysis to identify the most important and probable factors of the possible wide range. The information obtained in the process of strategic analysis, and was used by the authors for the procedures with clippolygon and develop alternative options of IIRS, what is the next step in the process of development and implementation of IIRS. For the last alternative industrial innovative region strategies generate and evaluate. In this matching, the urgent task is the determination of the composition of the task and list of actions to implement them.

The regional industrial-innovation policy is a form of IIRS implementation. The development of regional industrial and innovation policies allows to integrate the goals and the priority directions of regional industrial-innovative process with mechanisms for their implementation. The procedure of formation of regional industrial and innovation policy incorporates a broad range of consulting, design and other procedures for the objectification of the real state of RIC's potential.

The objectives of the regional industrial-innovative policy are: 1) the activation of innovation processes in the RIC; 2) development and effective use of innovative, technological, methodological capabilities and potential structural changes due to the attraction and development of intellectual potential, as well as the available resources allocated for the creation of innovative products; 3) promoting market development and promotion of innovative projects on the market; 4) support and development of technological capabilities, including by attracting investment and other financial resources in process management; 5) production of high-tech, competitive products and expansion of tax base in the region interests; 6) the use of management technologies in the RIC development of allocating type.

To achieve the objectives of industrial-innovative policy includes implementation in the following areas: 1) identifying the issues of the RIC whose solution requires the development of innovative activities; 2) to ensure increase in GRP by mastering the production of innovative products and technologies, as well as the extension on the basis of their markets; 3) development of innovative infrastructure and creating an attractive environment for investment in certain RIC; 4) formation of effective system of innovative activity state regulation; 5) the state support for innovative activity; 6) the creation of conditions for the integration of innovative and scientific-educational activities; 7) development of a set of actions for locating technologies implementation.

Conclusions and prospects for further research. The results of the study prove that the innovation strategy of the region as a component of the mechanism of management of RIC innovative development includes the subjects of the control subsystem on generation, evaluation and selection of priorities, methods and tools for forming, building and use potencial of the real sector of the region economy. Hence, we can admit that the decision of regional problems of combining capabilities, resources and reserves of regional industrial complexes is a key factor of economic growth and competitiveness. The difficulty of developing the innovation strategy is determined by the search and evaluation of strategic alternatives that achieve the socio-economic and innovation goals of a certain RIC.

Evaluation of the effectiveness of region industrial innovation strategy can be carried out only on the results of determining the likelihood of RIC's milestones on the basis of comparative analysis of planned and actual targets that are set at the stage of formation of strategic objectives of innovative processes in the RIC. The development of further research in this direction should be aimed at the substantiation of the most optimal set of technologies to manage the re-engineering of the RIC.

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