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ALGORITHM OF FORMATION OF THE INNOVATIVE ECONOMY OF THE REGION

Victor G. Belomestnov (a)*, Irina A. Belomestnova (b)
*Corresponding author

(a) East Siberia State University of Technology and Management, 40V Klyuchevskaya ul., Ulan-Ude, Russia, b_v_g02@list.ru
(b) East Siberia State University of Technology and Management, 40V Klyuchevskaya ul., Ulan-Ude, Russia, irina1905@list.ru,

Abstract

The article discusses a methodological approach that ensures the construction of an innovative economy in certain specific regions of Russia, which have determined this path of development in their strategy. It is determined that the innovative economy is based on the processes of the emergence of new resource opportunities for socio-economic development. An algorithm for the economic policy of the formation and development of a region with an innovative economy is proposed. It was revealed that the establishment of criteria for the innovativeness of the regional economy is based on the assessment of the rate of resource-innovative substitution and development. To assess the potential for the transition of a region to an innovative economy, it is proposed to carry out both well-known indicators of innovativeness and the proposed indicators of the use of innovative resources. A complex of models has been developed for the intensification of the use of capital (assets), organizational modernization, development of the economic, social and environmental potential of the region, ensuring economic security, improving the quality of investment processes, resource innovation substitution, investment and innovation development, development of intellectual potential, leveling out spatial development, which lies at the heart of the economic policy algorithm for the formation of the region's innovative economy.

Keywords: Innovative economy, region, strategic projects

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1. Introduction

The economic policy of the state, formed and implemented in strategic documents, determines the goals, priorities and principles of the state's development, but does not give a sufficiently complete answer about the development of the regions. This issue has been given to the regions themselves, and the state only gives preferences to the leading development regions and strategically important regions. An important issue assigned to the regions is the choice of the basic model of the regional economy. Despite the fact that in many ways this choice is predetermined by the specialization of the region, they always have the opportunity to diversify. The choice of the direction of building an innovative economy as the main path of development is accompanied by a number of theoretical ones, methodological and practical problems and requires its own research.

2. Problem Statement

Building an innovative economy in the regions of Russia faces a number of problems. There are several reasons for the low rates of building an innovative economy in the regions.

The first reason is the conservative thinking of management, inadequacy of the applied resources and management methods to ensure the required pace of development.

The second reason is the problems of an ineffective institutional environment, such as: ineffective selection of business ideas; insufficient development of the regional innovation subsystem;delays in the implementation schedules for innovative developments, lack of or incorrect priorities for innovative development; "Excessive" innovative competition; low profitability of inno (Belomestnov, 2019).

The third reason is the lack of an algorithm for the transition to an innovative economy, which could serve as the basis for a methodology for managing the completion of a new type of regional economy.

3. Research Questions

The main principles of the innovative economy of the regions are its flexibility and resistance to negative and positive changes in the external and internal environment. Accordingly, the results of the study should give an answer to the main directions of the implementation of these principles in the development tools, in the capacity of which strategic projects are studied.

An innovative economy is characterized by the use of proactive development forecasting methods. The vision of the region's future is largely subjective. But as the backbone of development, one can consider the definite tendencies and processes forming in the economy. According to the authors, an innovative ecoomy is based on the processes of constant resource substitution, the emergence of new resource opportunities for socio-economic development.

The adaptation and transition of the region to an innovative economy should be based on an assessment of the potential for the formation of an innovative economy and the implementation of an algorithm (a set of models) that ensure compliance with the principles and indicators of an innovative

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economy. Obviously, this requires making certain adjustments to the models and algorithms for the formation and implementation of state and local economic policies.

4. Purpose of the Study

The purpose of this article is to develop an algorithm for the economic policy of the formation and development of a region with an innovative economy. It is based on the establishment of criteria for the innovativeness of the region's economy, assessing the transition potential of a particular region and an innovative economy, developing a set of models that ensures the movement of regions towards an innovative economy and the selection of strategic development projects according to the established criteria.

5. Research Methods

The methodological aspects of socio-economic development and the formation of the economic policy of the regions in modern conditions were considered by such authors as Glazyev (2015); Granberg et al. (2009); Kudrin & Gurvich (2015); Mau (2018); Polterovich (2018) and others. Resource consumption as a direction of innovative development was considered in the works of Yaremenko (2001). Economic security was considered in their studies by Abalkin (2015); Minevrin (2017) and others. The methodology of spatial development is considered in the works of Minakir and Dzhurka (2018) and other authors.

The main idea of this study is to determine a methodological approach that ensures the construction of an innovative economy in certain specific regions of Russia, which have defined this development path in their strategy.

The new methodology should become a tool for state and local governments in pursuing economic policy aimed at shaping the region's innovativeness, as well as defining the interests, priorities and criteria of the authorities in pursuing this policy for business.

6. Findings

6.1. Formation of a system of evaluation criteria characterizing the innovativeness of the region's economy

The assessment of the degree of compliance of the regional economy with the requirements of the potential for the formation of an innovative economy can be carried out according to the formal indicators adopted in Russia and in international practice, mainly related to the effectiveness of the scientific and innovative sector. It can be carried out according to the indicators of resource consumption in the region (use intellectual resources in GRP, for example, the share of labor of higher and scientific qualifications, the share of intangible intellectual assets, etc.).

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6.2. Assessment of the transition potential of a specific region and innovation economy

The assessment of the potential for building an innovative economy in the region is carried out according to the above systems of indicators. A strategic decision on the transition to an innovative economy can be made only if there is sufficient potential or the possibility of increasing it. This requires the development and amendment of strategic planning documents for the region, industries and enterprises.

6.3. Development of a set of models that ensure the movement of regions towards an innovative economy in the implementation of strategic development projects

The set of models proposed below forms the basis of an algorithm for step-by-step consideration of the compliance of regional development projects with the requirements of an innovative economy. The established sequence of action of the models (their priorities) are determined by the authors based on the assessment of their significance for the innovative economy and may change.

6.3.1. Model for the intensification of the use of capital (assets)

The model for intensifying the use of accumulated capital assesses the efficiency of using the existing production material and intangible assets in the regional economy, as well as the measurement of efficiency as a result of the implementation of strategic projects for economic development.

In general, this model makes it possible to determine the directions of the policy of the state and firms in determining the need to invest in modernization by assessing the use of existing reserves.

6.3.2. Organizational Modernization Model

The organizational modernization model is aimed at assessing the impact of strategic projects on the use of high-performance methods, technologies and production systems in the regional economy. Organizational modernization presupposes, among other things, the transition to higher technological orders, the maximum possible and effective satisfaction of the needs for products of material and non-material production based on the principles of high technology and high productivity.

In general, this model makes it possible to determine the directions of technological and technical policy of the state, organizations and firms.

6.3.3. Model for the development of the economic, social and environmental potential of the region

The model for the development of the economic, social and environmental potential of the region is aimed at assessing the impact of strategic projects on the potential of the region, defined as the possibility of using certain resources. Potential is assessed by resource and process (organizational) components.

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The development of potential is significantly influenced by the processes of its identification and use, which can be considered within the framework of the 5I submodel - Intelligence, Information, Innovation, Institutions, Investment.

In general, this model allows us to identify the possible positive influence of a strategic project on the development and use of the potential of the region. It allows us also to outline ways to localize the negative impact of projects on the corresponding parts of the region's potential, to form the needs for the implementation of compensating projects in other areas of activity (using other resources), providing preservation and growth of potential.

6.3.4. Economic security model

The model for ensuring economic security is aimed at assessing the impact of strategic projects on the stability and stability of the socio-economic system and developing directions for their support. An innovative economy is associated with an increase in uncertainty and risks of the socio-economic system entering another economic space. New markets, technologies and products, as a possible result of building an innovative economy in the region, require other competencies and institutional actions.

Methodologically, the security problem is currently considered from two positions: the sufficiency and availability of appropriate resources to ensure the life of the population and business; protection of the main processes from the influence of external and internal disturbances.

Currently, there are two main concepts of ensuring security (food, energy, transport, etc.) in the regions of Russia. The first is the maximum output to self-sufficiency in the main products and services that can be produced in this region. The second is ensuring a stable (if possible positive) balance and concluding long-term contracts with suppliers of last resort, as well as the availability of alternative "spare" supply options.

The situation is more complicated with those resources and services that are on the verge of depletion or are not available. In this case, the problem can only be solved by resource-innovative substitution; investment policy should be aimed at finding and developing innovations.

Measures to ensure the safety of the functioning of socio-economic systems and their elements can be divided into two groups. The first is structural and resource, in which measures, programs and projects for the development of the resource base are determined: production capacities and the use of innovative means of production, the use of new materials, infrastructure support. The second is process-organizational, in which activities, programs and projects for the development and implementation of innovative technologies, methods of organizing production, information support are determined.

In general, this model allows us to identify the possible negative impact of a strategic project on the security of the region, and allows us to outline ways to ensure it while implementing the principles of an innovative economy.

6.3.5. Model for improving the quality of investment processes

The model for improving the quality of investment processes is aimed at assessing the impact of strategic projects on targeted changes in the structure of the economy, as well as the attainability of established performance indicators in achieving the development goals of the region.

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The high quality of investment processes in the regions means the maximum convergence of investment capacity (real possible consumption of investments in the region, presumably demanded projects) and investment potential (potential consumption of investments in the region, all generated development projects). It can be ensured through measures to localize or eliminate restrictions and development risks, as well as through the use of investment preferences in the region.

The reasons for the appearance of investment deadlocks can be incorrectness of the generated project idea, ineffective design, ineffective implementation and control, i.e. problems arising at all stages of the project life cycle. At the stage of initiating a project idea and generating alternative options, the main reason for inefficiency is informational limitations.

Lack of information, its uncertainty, fuzzy and probabilistic nature, on the one hand, give freedom for ideas, but, on the other hand, make the process subjective, depending on the personal interpretation of information. In this case, even group team methods of expert analysis are ineffective and often lead to the failure of an investment project at the stage of conception.

The problem of ineffective design arises at the stage of designing a project into a formal document with relevant technical and economic information. It arises both due to the previous problem and due to the shortcomings of the project management system at the enterprise (and, by the way, at the state level).

In general, this model makes it possible to formulate a policy of state support and guidelines for business when developing strategic projects in an innovative economy, aimed at achieving the goals of socio-economic development by determining the proportions of investment.

6.3.6. Resource innovation substitution model

The resource-innovative substitution model is aimed at assessing the impact of strategic projects on the use of resources inherent in the characteristics of innovation-type regions. These resources include, first of all, intellectual, creative, entrepreneurial and other resources.

In general, this model allows you to determine the direction of policy of the state and firms in the use of production resources.

6.3.7. Investment and innovation model

The model of investment and innovative development is aimed at assessing the impact of strategic projects on the level of innovation in the region. In this model, it is necessary to divide investments into investments in innovative development and other investments (Belomestnov, 2018). It is proposed to identify the indicator of the rate of innovative investment necessary, which will be targeted for public administration. The high rate of innovative investment in the regions allows for the accelerated construction of an innovative economy.

In general, this model makes it possible to determine the directions of the policy of the state and firms in determining the timing of development and launch of innovations in order to maximize the use of financial resources and ensure the competitiveness of the economy.

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6.3.8. Intellectual potential development model

The model for the development of intellectual potential is aimed at assessing the impact of strategic projects on the development of intellectual resources that form the basis of an innovative economy.

In general, this model makes it possible to determine the directions of the policy of the state and firms in determining the needs for the development of intellectual potential, as well as ways to ensure such development.

6.3.9. Model of leveling spatial development

The model of leveling spatial development is aimed at assessing the impact of strategic projects on the use of the economic space of the region and the use of its innovative potential.

The development of economic space is based on the use of the following system of submodels. The first is an axial submodel of spatial development (commodity and transport approach), a submodel of the formation of a spatial development network (an approach to identifying centers of economic, environmental and social activity. The second is a cluster submodel of spatial development based on an approach of mesoeconomic cooperation in the formation of associations and the development of a competitive environment.

In general, this model makes it possible to determine the directions of spatial development from the position of consolidating the interests of the state, business and the population of the region.

7. Conclusion

The implementation of the research idea involves the development of an algorithm for the economic policy of the formation and development of a region with an economy of an innovative type. It is based on the establishment of criteria for the innovativeness of the region's economy (including the rate of resource-innovative substitution and development), an assessment of the potential for the transition of a particular region to an innovative economy. This also includes the development and implementation of complex models that ensure the movement of regions towards an innovative economy through the selection of strategic development projects in accordance with the established criteria.

This makes it possible to form an economic policy of the region, aimed at consolidating the efforts of the state, society and business in the socio-economic development of the region, achieving the goals and interests of all subjects.

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