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**THEORETICAL ASPECTS OF THE COMPLEX
TRANSFORMATION OF THE REGIONAL ECONOMIC SYSTEM**

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Abstract

The economic system must constantly be in the dynamics of development. This allows it to avoid stagnation and enables it to be competitive. The development of the system can occur in an evolutionary and revolutionary way. The choice of a model is based on the current state of the system, its efficiency, compliance with current tasks, etc. All participants in the system should carry out changing the state of the system. The authorities start this process and mobilize the necessary resources. Private actors are involved independently or by the state in the implementation of new changing tasks. The transformation of the economic system is its restructuring for new tasks. Transformation often expresses a revolutionary type of development, because deeply affects the fundamental elements of the system. It remains highly important to preserve the ability of the system to perform its functions in full after the final and in the process of transformation. The paper considers the issues of the integrated development of the regional economic system by the transformational method: directions, provisions, models of this process are identified. The principles of innovative development of the industrial construction industry are highlighted as an indicator of the level of economic development of the region.

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1. Introduction

The transformation of the structure of the region's economy in the context of investment and innovation involves finding cost-effective proportions of system elements; improving the quality characteristics of the system; stimulation and development of the activity of the system and its elements; increasing ways of showing initiative; as a result - increasing the efficiency of the entire system. The higher trade and financial integration ensure that economies develop structurally through comparative advantage, technology transfer, access to external finance and providing opportunities for risk sharing (Muazu, 2020).

2. Problem Statement

The sectors of Russian economy typically show unsustainable dynamics of effort in the field of innovations. This is due to a number of factors, including the following: concentration of innovation efforts at large-scale Russian businesses and TNCs, high dependence between efficiency and intensity of innovations on external economic shocks (sanctions, embargo, intensified competition at overseas markets, etc.), significant impact on intensity of innovations from measures of government support, growth of innovation efforts in high-tech industries has been largely ensured by the military-industrial complex and promoted export of high-tech products with the insufficient national demand. An intensive nature of innovation efforts is clear in high-tech and medium-tech industries of the high-level, in production and distribution of electric power, gas and water, as well as agriculture (Chernova et al., 2019). Structural transformation is aimed at bringing the structure of the region's economy in line with the market model of economic management within the country. It is also provided to achieve a high degree of openness of the regional economy, innovative development and ensure the competitiveness of regional production in the external and internal markets.

3. Research Questions

The new system must correspond to the new realities. These are, on the one hand, overcoming the hypertrophy of the sectoral structure of the country's national economy (for example, a high proportion of the branches of the military-industrial complex, capital-intensive raw materials industries and branches of heavy industry). On the other hand, this is the strengthening of the processing industry and industries using innovative technologies designed to provide the country with a high place in the system of the international division of labor. Today it is necessary to apply the innovative approach providing a new view to conditions of its activities that development of this business was adequate to the process of forming and functioning in the country of industrial economy of the innovative type to problems of development of SMEs and other and other entities (Zamanbekov et al., 2020).

4. Purpose of the Study

Transformation provides organizations with opportunities for business development, setting and achieving new goals, moving to a new level of implementing routine functions (Barmuta et al., 2020).

The purpose of the research is to study the issues of the integrated development of the regional economic system by the transformation method, as well as to determine the principles of innovative development of the industrial construction industry as an indicator of the level of economic development of the region.

5. Research Methods

To achieve the purpose of the study, the following scientific methods are used: a comparative analysis, a retrospective analysis, a method for identifying cause-effect relationships, analysis of regulatory documentation, system analysis, forecasting, a practice-oriented approach

6. Findings

Optimization is the global goal of transformation. The optimal structure of the economy corresponds to social needs, has the ability to quickly and adequately respond to their changes, relies on the rational use of resources and a broad division of labor, ensures the production of a product at minimal cost. Each historical stage in the development of society corresponds to its own idea of the optimal state of the national economic structure. One of the features of the modern world is the large differences between the countries combined with significant similarities between certain types of regions in different countries. There are many similarities in the steps of different countries to solve their internal regional problems (Nikiforova et al., 2019).

Global changes in socio-economic systems are always associated with qualitative changes in the internal and external environment. The quantitative parameters of the internal structure do not play a special role here. The disadvantages of globalization include social inequality, degradation of the environment, production fragmentation (elimination of jobs and unemployment in developed countries), lower competitiveness of industrial and agricultural enterprises in developed countries (poor life quality of workers in developed countries), impact on culture (Krysovaty et al., 2018).

The changes provide for the following areas of innovative development:

1. Institutional transformations to improve the flow of business processes.
2. The new structure of the regional economy and its organization.
3. New ways of regulating the economic environment.

In recent years, science-intensive production has become especially important. Policy agendas are now being formed at the local, regional, national, and global level in response to rising concerns about socio-technical innovations, including those related to developments in the allocation of decision-making authority to autonomous intelligent systems (Gandy & Nemorin, 2019). There is a need for enterprises to constantly update products and technologies. All stages of the innovation cycle require financial, informational and infrastructural support. Problems often arise here. It is also difficult to develop links between the key participants in the commercialization process (scientific organizations, small innovative enterprises and big business). The economic efficiency refers to higher transit ridership, economic development and location efficiency through the planning of high density mixed land use development around transit (Zaina et al., 2016). In this regard, the transformation of science, techniques and technology into a real instrument for economic development requires government participation.

Structural changes in the economy cannot be spontaneous. In all industrially developed countries, the state plays an important role in forcing structural innovation. The role of the state in this process should be prioritized. It is important to have the support of the majority of society on the issue with such a fundamental structural changes (Kolodko, 2020).

The main provisions of the structural innovation restructuring of the regional economy are as follows:

- determination of the commodity structure of the economy, taking into account domestic consumption, development priorities, participation in the international division of labor;
- identification of industries with excess and insufficient production capacity, assessment of their condition and technical level in a comparative context;
- development of state investment policy and investment program, as well as programs for technical re-equipment;
- development of investment programs with the calculation of their economic and social efficiency;
- development of mechanisms to stimulate investment and innovation and production processes.

Innovative structural transformations are greatly complicated by the crisis in the economy and global events (pandemic, environmental disasters, terrorism, military conflicts). A compromise is needed between overcoming the crisis and structural changes in the economy. We cannot wait for the final stabilization to solve structural problems, since the future structure of the economy is being formed today. It is impossible to allow the achievement of economic equilibrium at the cost of conserving the backward structure of production, consolidating the raw material export specialization of the economy and refusing to innovate.

Models of socio-economic development of regions are possible in the IIAM group (inertia, integration, autonomy, mixing).

1. The inertial model ("I") - development according to a previously defined strategy in accordance with the strength of a given impulse. Long-term preservation of already established functions in the system of division of labor. Within the framework of the model, a gradual entry of the region into international relations on a small scale is possible. Eventually the given impulse will weaken the inertial development will exhaust its possibilities. The economy will have to urgently change its model. This method has low innovativeness and carries risks of uncontrolled socio-economic processes in the future.

This model is implemented most often because does not require special efforts of the authorities and constant search for investors. In addition, it allows you to avoid responsibility for ineffective decisions by referring to general development trends.

2. The integration model ("I") is economic cooperation, pooling of efforts and resources with adjacent regions, territories, countries. The resource base is expanding, the resources and efforts of several participants are concentrated on solving major problems, and there is a synergistic effect. To implement such a model, a well-coordinated development concept and mechanisms for its implementation are required. This model can be highly innovative for one of the parties to the partnership under different starting conditions. The risks of integration associations are very significant.

3. The autonomous model ("A") is self-sufficiency, economic isolation, reliance solely on its own resources. In fact, this model completely impedes innovative development. Lack of resources and the lack of effective separation leads to dissatisfaction with the needs of the population and the production sector. This model takes place in a totalitarian system that has proven its investment and innovation inefficiency.

4. The mixed model ("M") uses internal resources and development factors of the region to attract external (including foreign) resources (scientific, technical and technological innovations, investments, intellectual potential, etc.). There is transfer of the economy to an intensive basis, and the socio-economic development of the region on a resource-saving and nature-saving innovative trajectory.

The mixed model is characterized by high risk, but also greater agility, high innovation potential, the possibility of a phased change of priorities, and the interchangeability of solutions. The pure versions of instrumentalism and proceduralism can lead to odd conclusions about the legitimacy of a procedure. The mixed approach needs to assess decision-making processes in light of the trade-offs between their instrumental and procedural virtues (Danaher, 2016). The model requires high government participation to reduce increased risks and control over production and financial processes.

In this model, capital-intensive industries appear that require the development of innovative technologies and innovative infrastructure. To ensure the functioning of the model, the development of infrastructure is required for the transport complex of the region to perform the contact function.

Thanks to the mixed model, the territory develops more balanced and evenly. Relying on its own natural resource potential and geo-economic position, it becomes possible to implement obviously unattainable projects. This is helped by social, environmental and innovation priorities set by the development model, provided by the state and business partners.

To implement any of the models, various options for regional investment and innovation policy are required. The inertial model of development requires centralized public investment, refusing its own flexible investment and innovation policy. The integration model can be implemented only with a protectionism and a high level of legal framework. Protectionism will not be able to ensure investment competitiveness and innovative attractiveness of the region in comparison with more open regions. The autonomous development model uses reliance on its own innovation and investment resources, which are often limited and insufficient for progressive development. The mixed development model supposes the implementation of a very complex, multi-layered investment and innovation policy. Such a policy should ensure the extraction and connection of a wide variety of investment and innovative resources: state, regional, municipal, entrepreneurial, including foreign resources (for example, multinational companies). The weak and strong areas of the community can be identified when examining the resilience indicators individually (Bec et al., 2018).

The mixed model requires broad sources of investment and must be consistent with the investment policy of the region. The construction industry is an indicator of the level of development of the regional economy. The untapped potential of innovation in the construction industry indicates the inefficiency of the entire investment and innovation policy of the region. The strengthening and enforcement of building regulations is a much-desired parameter under this especially in countries where the building sector is rapidly expanding in tandem with a fast-growing economy (Ghosh et al., 2018).

The main principles of innovative development of the construction industry are:

1. Concentration and Stabilization ("C&S").

Specialized organizations ensure an improvement in the quality of construction products, the development of standardization and unification of production, the introduction of innovations, and a reduction in construction time due to higher growth in labor productivity. They do this much more efficiently than general construction organizations, since they use advanced work technology, have highly qualified personnel, and use specialized equipment more efficiently. Concentration alone cannot guarantee the timely release of the final product. This requires special economic and organizational stabilization mechanisms that will determine the interaction of all participants in the construction conveyor, divided by type of work in order to achieve a common goal.

2. Cooperation and combination ("C&C")

The development of specialized production forces the coordination of the activities of organizations participating in the investment process, the establishment of close production interactions between them, the formation of a special infrastructure. This is ensured by the interaction of the organization in the form of production and economic cooperation. The main principle is not subordination, but a contract. Industrial interactions in construction arise between contracting and subcontracting construction organizations, between construction organizations and enterprises supplying materials, parts and structures, between construction enterprises and transport services, design organizations, etc. The innovative component of this relationship is a factor in accelerating production and business processes. Combining production chains allows them to multiply the efficiency of work and reduce the delivery time of finished construction projects.

3. Synergy ("S"). Industrial construction can develop in different areas of economic activity - the chemical industry, food, etc. It can differ in the types of technological, architectural, structural, organizational schemes of production and innovative technologies used. The priority of one type of construction development leads to an imbalance in the system, violation of the principle of compatibility. Complex business processes provide an additional (synergistic) effect. Achieving the set goals is possible due to fewer resources. The achievement of the agenda crucially depends on whether we will be able to maximize such synergies and resolve the existing trade-offs (Kroll et al., 2019). This effect is the result of the "C&C" principle.

4. Uniqueness ("U"). General approaches to the implementation of investment and innovation policy cannot be applied to a specific participant without adjustments. There should be an opportunity to change the approach for an individual subject of management. This is especially true for large business structures, which include industrial and residential construction. Having come to the fore in the industry, the company is oriented towards gaining innovative advantages of current technologies (Lomovceva et al., 2016).

5. Optimality ("O"). It is necessary to achieve optimal performance of the subject of management. When their behavior in the business process brings the maximum overall effect while attracting the optimal amount of investment and innovation resources. The principle of optimality is equally relevant for industrial and residential construction, as well as all business processes.

7. Conclusion

The transformation of the socio-economic system towards innovative development is an urgent issue. The economic transformation allows drawing “lessons,” concerning transformation paths, economic reproduction, windows of opportunity, differences between new functional entities and the population, and “side effects” on social structure (Bernd, 2016). It is proved that the innovative way of development significantly accelerates economic growth and increases the quality of life of the population. The state is the only origin of transformation processes, in which all business structures, authorities and the population are involved. The state must choose a model for the transformation of the system. Each transformation model has its own positive and negative features. We believe that the mixed model is preferable because allows using the most effective principles of unlocking the potential of innovation of existing national enterprises and can create new ones. The industrial and residential construction industry demonstrates this well.

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