

## THEORETICAL FOUNDATIONS OF PERFORMANCE MANAGEMENT OF CONSTRUCTION ORGANIZATIONS

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**Abstract.** *The article considers the problem of forming the management structure of a construction organization as a systematic basis for its effective technical, organizational and economic development based on modern methods and management tools based on optimization solutions, which ensures the further technical and economic development of the construction industry. The method of system analysis of the complex substantiation of options for the organizational structure revealed the stages of modeling and analysis of strategic development that contribute to the introduction of the digital economy in matters of organization, management and planning on a single information platform.*

**Keywords:** *construction, management structure, management methods, systemic impact, business case, digital economy.*

The transition to a market economy gave a significant impetus to the development of construction in Russia. Despite the active development of the industry, there are both external and internal factors hindering the development of the construction industry. The study of the state and patterns that have developed in construction is an urgent task that needs to be successfully solved.

Orienting the activities of the construction complex in a cost-effective direction based on modern methods and management tools, one should use such approaches as project management, diversification of construction production, digitalization of building system elements, taking into account the probabilistic nature and multicriteria of factors affecting the achievement of goals and other modern approaches. This is ensured by various optimization solutions when considering the life cycle of a construction organization, objects or complexes of objects created by it. During the development of the project, its implementation and subsequent operation of the facility, attention should be paid to the recommended efficient use of the production capacities of construction organizations and their resource base, which will increase the competitiveness of construction organizations, increase the output of construction products, and also improve the quality of the objects under construction.

It is advisable to study many problems of the construction complex, for example, such as the interaction of all participants in the investment and construction processes within the framework of the project, to carry out on a single information platform, but the existing software environment does not yet have a unified view of the object and a complete solution. The introduction of information modeling technologies at the design and post-project stages of construction projects is hindered due to the complexity of integrating data from different subsystems and project participants, which arise and partially at different stages of activity and time periods. The main prerequisite for the emergence of new opportunities is the further development of accessible information, technical, technological and regulatory tools for the interaction of participants involved in the investment and construction processes.

Systemic impact on the activities of the construction complex in a cost-effective direction based on modern methods and management tools, relying on optimization solutions when

considering the life cycle of an object or a complex of objects, will ensure the further technical and economic development of a construction organization and the construction industry as a whole. The proposed design of the organization of construction production based on solving problems by economic and mathematical methods, taking into account the probabilistic nature and multicriteria of factors affecting the achievement of goals, will ensure the reliability of the results of decisions.

The purpose of this study is to determine, based on an analysis of current development trends and various expert assessments of the impact on the technical and economic development of the construction industry in Russia, its management structures and organizations of a system-technical approach in the context of solving the problems of structural modernization.

In the theoretical and practical aspects of managing the construction complex and its organizations, it is advisable to include a comprehensive economic justification for options for the organizational structure of building production management at the stages of modeling and analyzing strategic development as a semi-structured system. Assuming that organizational design is aimed at ensuring the interaction of interrelated elements that arise at different time stages and, at the same time, are connected by a sequentially obtained information base for decision-making, we can conclude that it is necessary to form a system that unites these elements and a systematic approach to making optimal decisions during its functioning.

The construction industry and its organizations, having characteristics common with the main production systems of the sectors of the economy, but due to the peculiarities of the production of their products, should, starting from the stage of choosing a construction object by the customer and throughout the entire period of creation and life cycle of the object, plan and organize the implementation of each stage of their activities. Planning, starting at any organizational level as a long-term for a period chosen by top management depending on the objective information it has, is aimed not only at technical and economic development, but also at the organizational development of the industry, regional complexes and directly production organizations and is strategic planning appropriate levels of management. The necessary detailing of the implementation of strategic plans is provided for in stages in medium-term or tactical plans and in the future, the transition, respectively, to annual and operational planning.

Nevertheless, there are factors in the construction industry that negatively affect its functioning at the present time and the overcoming of which will require significant financial costs and a long period of time. Emerging forecast estimates of the development of the economy, both Russian and global, in the current 2021 indicate that the crisis caused by the pandemic is leading to the curtailment of a significant part of business, a sharp decrease in aggregate demand, an increase in unemployment and the number of bankruptcies [15]. According to various estimates, the recovery of the economy and its industries will be long-term. In this regard, based on a number of studies, an analysis of current development trends and various expert assessments of the impact of the pandemic on the directions of the recovery / post-pandemic development of the Russian construction industry, it can be concluded that development will take place in the context of structural modernization tasks. A lot of predictive assessments have appeared about the impact of the pandemic on the construction industry and the conditions for post-pandemic development in 2021.

It is advisable to take organizational structures for managing construction organizations on the basis of a variant comprehensive economic justification for the organizational structure of

building production management. It is proposed to apply an algorithm for a comprehensive economic justification of options for the organizational structure of production management, in which, based on the information obtained at the initial stage, a comprehensive pre-project analysis of the existing management structure is performed and the justification for the need to restructure the existing structure to make design decisions.

When justifying changes in the management structure, it is advisable to take into account the results of the analysis of regional and sectoral conditions for the functioning of the system, the clarification of its goals and objectives, the determination of the reserves of the existing structure, the choice of evaluation criteria. Such information can significantly affect the development of the organization's specialization, for example, the ratio of volumes of residential and industrial construction, and the development of construction industry enterprises and building materials can affect the logistics of supplying the relevant resources. As criteria for evaluating production in the formation of the management structure, one can take into account the level of the technical state of its development as a correspondence to progressive approaches at the time of the reorganization of the organization. The level of development of production technology for certain types of work and for all types of work performed by the organization using advanced methods of work production, such as the formation of their in-line execution, operational planning, dispatching for work based on weekly-daily schedules, should also be taken into account. The ability of the organization to various areas of innovative development is also considered an evaluation criterion. The criterion of resource provision can influence both the medium-term development of the organization and the development strategy. Thus, the material intensity of products, depending on the logistics of supplying raw materials, can affect the choice of product range at construction industry enterprises, and off-site engineering infrastructure (transport, bridges, free capacities of energy resources, etc.) affects the timing of achieving the required parameters and significant financial costs or cooperation with interested organizations.

At the same time, each structural restructuring has, in addition to criteria, limitations dictated by the technical and economic development of the organization. Limitations may be the ability to finance the entire structural adjustment program or activities with varying durations. These include a change in technological processes, the availability of the necessary infrastructure, a complete set of new machines and equipment, a partial change in the resource base for a number of technical, quality and cost characteristics, and staff training. In order to obtain the above information, a preliminary study of the external environment, economic research, marketing research of the market, and cognitive modeling are carried out. The final step in choosing a management structure option will be its expert assessment by leading industry experts with the direct participation of the organization itself, taking into account the experience of experts in organizational, design and practical activities related to various periods of the life cycle of a construction organization and the characteristics of its products.

## **REFERENCES**

1. Anpilov S.M., Sorochaikin A.N. On the development strategy of the construction industry of the Russian Federation (part II) // *Expert*. - 2019. - No. 2(2). - c. 12-15. - doi: 10.24411/2686-7818-2019-00023 .

2. Anpilov S.M., Sorochaikin A.N. On the development strategy of the construction industry in the Russian Federation (part I) // *Expert*. - 2019. - No. 1(1). – с. 7-15. – doi: 10.24411/2686-7818-2019-00011 .
3. Zinovieva I.S., Shakalova L.A., Problems and prospects for the development of the regional housing construction market // *Actual directions of scientific research of the XXI century: theory and practice*. - 2016. - No. 2 (22). – с. 33-38.
4. Ishkov A.D. State and prospects of the construction industry in Russia: dynamics of indicators of the Federal State Statistics Service // *Economics and Entrepreneurship*. - 2016. - No. 10-3 (75). – с. 541-544.
5. Гинзбург А.В., Гриднева Я.А. Оценка целостности системы управления строительством // *Системотехника строительства. киберфизические строительные системы* - 2019. М., 2019. – с. 118-123.
6. Королева М.А., Кондюкова Е.С., Дайнеко Л.В., Караева Н.М. Экономика строительного предприятия. / Учебное пособие. - Екатеринбург: Изд-во Урал. ун-та, 2019. – 202 с.