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THE ROLE OF THE MATERIAL AND TECHNICAL BASE IN CONSTRUCTION ENTERPRISES IN INCREASING THE COMPETITIVENESS

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Abstract. This article examines the issues of increasing competitiveness in construction organizations by updating the technical base. It analyzes ways of effective use of material and technical resources, modernization of production, and rational location of enterprises. It also substantiates the importance of specialization, cooperation, and development of cooperation with scientific and research institutions.

Keywords: construction companies, material and technical base, concentration, specialization, cooperation, efficiency.

Annotasiya. Mazkur maqolada qurilish tashkilotlarida texnik bazani yangilash orqali raqobatbardoshlikni oshirish masalalari koʻrib chiqilgan. Unda moddiy-texnik resurslardan samarali foydalanish, ishlab chiqarishni modernizatsiya qilish hamda korxonalarni oqilona joylashtirish yoʻllari tahlil etilgan. Shuningdek, ixtisoslashtirish, kooperatsiyalash va ilmiy-tadqiqot muassasalari bilan hamkorlikni rivojlantirishning ahamiyati asoslab berilgan.

Kalitli so'zlar: qurilish korxonalari, moddiy-texnik baza, konsentrasiya, ixtisoslashtirish, kooperasiya, samaradorlik.

Аннотация. В данной статье рассматриваются вопросы обновления технической базы и повышения конкурентоспособности строительных организаций. Анализируются пути эффективного использования материально-технических ресурсов, модернизации производства и рационального размещения предприятий. Также обосновывается важность специализации, сотрудничества и развития сотрудничества с научно-исследовательскими учреждениями.

Ключевые слова: строительные предприятия, материально-техническая база, концентрация, специализация, сотрудничество, эффективность.

Introduction. The construction industry is one of the important and strategic areas that ensure the sustainable growth of the country's economy. Because it is through this sector that modern infrastructure is created, production facilities, transport networks and socially significant structures are built. In this, increasing the level of labor mobilization in construction, increasing the level of mechanization, and generally technically strong and modern enterprises and organizations play a key role. Therefore, strengthening the material and technical potential of construction enterprises and its consistent development is one of the main conditions for economic development.

As for the term material and technical base, it is an important component that ensures the stability and efficiency of the production activities of enterprises. The material and technical base consists of the main means, equipment and technologies, building materials and production infrastructure necessary for the implementation of the production activities of construction organizations. The sufficient formation and effective management of these resources determines the quality, duration and economic efficiency of construction work, in other words, its competitiveness.

The level of understanding of the problem. The issue of developing the material and technical base in construction enterprises has been studied in recent years in close connection with increasing economic efficiency, utilization of production capacities, and competitiveness. In particular, some studies interpret the effective use of material and technical resources in construction enterprises, modernization of production processes, and technical renewal as the main factors ensuring the sustainability of the enterprise's activities [6].

Scientific studies on increasing the competitiveness of construction enterprises emphasize that the market advantage of an enterprise depends not only on price and quality, but also on production technology, the level of provision with material resources, and the effectiveness of management mechanisms [7]. This means that the material and technical base directly affects the cost, quality, and delivery times of construction products.

Also, in studies on increasing the competitiveness of construction products, product quality, technological innovation, and resource efficiency of production processes are indicated as important criteria. Sources analyzing the activities of construction industry enterprises argue that insufficient material and technical support can lead to a decrease in labor productivity, an extension of construction periods, and an increase in costs [8,9].

Regulatory and legal sources pay special attention to safety, technical requirements, and industrial safety issues at construction and production facilities. This indicates that the development of the material and technical base should be in line not only with economic, but also with safety and quality requirements [10].

In general, the analysis of the existing literature shows that the modernization of the material and technical base in construction enterprises is an important factor in increasing competitiveness. However, in this area, it is necessary to conduct more in-depth scientific research to assess the material and technical potential, determine the optimal use of resources, and determine the economic efficiency of technical modernization.

The main part. The important aspect of the problem is that the necessary logistical means, construction equipment, and production capacities, rather than the number of construction organizations in the region, serve the development of investment and the construction industry more. In order to develop and deploy the material and technical base of construction, it is necessary to have methods that allow quantitatively expressing all the factors and conditions that affect the choice of the territory and place of construction. In this case, the criterion for the optimal solution of the problem is usually the high competitiveness of the future product, while at the same time the costs of creating and deploying the enterprise are as low as possible.

An important part of the material and technical base of the territorial construction complex are enterprises producing building structures and materials. One of the important conditions for the development of the material and technical base of construction is the establishment of integration between construction enterprises and research organizations engaged in the design of enterprises producing building structures and materials. By integration, we mean the orientation of the interests of both construction and industrial enterprises towards technological growth.

It is appropriate that the following factors form the basis of integration relations in this process:

- development of new, most cost-effective projects for construction industry enterprises with highly mechanized and automated production processes;

- selection of optimal options for locating these enterprises on the territory of the country, taking into account rational schemes for the transportation of raw materials and materials, structures, and the development of production cooperation;

- technical re-equipment of existing enterprises, that is, enterprises that have been operating for many years.

It should also be noted that in the conditions of market relations, when the independence of construction industry enterprises in economic management is increasing, the issues of updating the material and technical base, strengthening cooperation between economic entities, in particular, entities and scientific and research organizations operating in the construction sector or related to it, are being implemented more and more by construction enterprises, with the support of the state, rather than by ministries, as before.

The second component of the material and technical base of the territorial construction complex is formed directly by the capacities of contract construction organizations. By updating their material and technical base, construction industry enterprises not only strengthen their production potential, but also ensure their economic stability in a competitive environment and increase the life cycle of their activities. In this case, the development of the material and technical base does not consist only in an absolute increase in the technical or material support of production, or, as economists say, in an increase in the provision of production with funds, but is carried out on the basis of its priority principles, on the basis of ensuring maximum efficiency.

Ensuring the harmony of these two elements and achieving literal integration will serve to increase the effectiveness of the territorial construction complex.

The results of the study showed that the following main areas are important in the development of the material and technical base of construction enterprises (Figure 1).

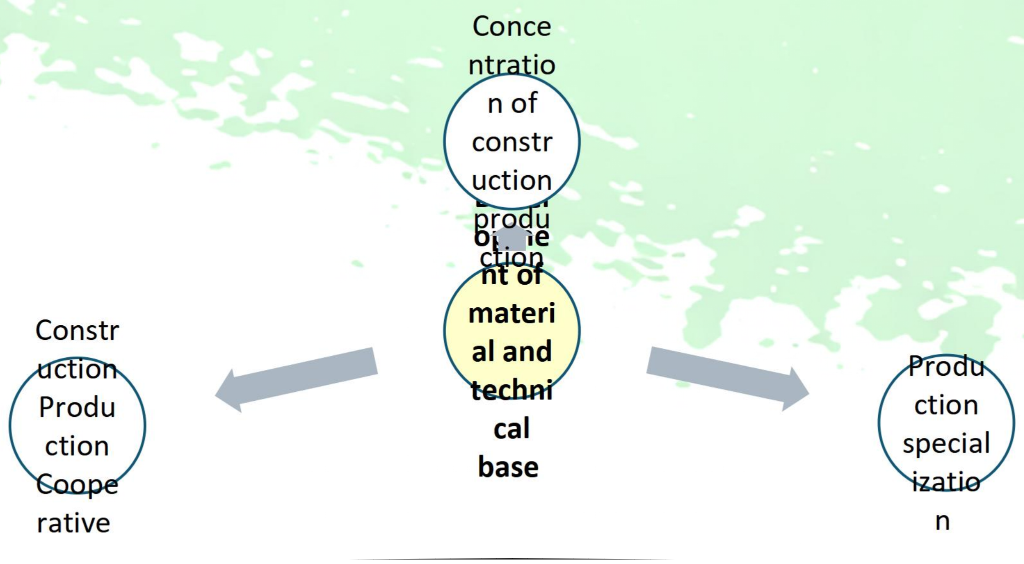

Figure 1. Ways to develop the material and technical base in construction.

In the construction industry, the concentration of production is understood as the process of concentrating funds, objects and labor resources at one point in large production units. Scientific and technical progress acts as the material and technical basis of concentration. Modern production, through concentration, provides maximum benefit for the interests of society. The social significance of concentration is that an increase in the level of technology reduces heavy manual labor and narrows the gap between mental and physical labor. At the same time, large enterprises provide high labor productivity, high-quality products and low costs, which increases economic efficiency.

Concentration is inextricably linked with specialization and combination of production. The development of specialized production is manifested as an advanced form of concentration of homogeneous production. The combination of production carried out in large enterprises allows organizing production at a much higher scientific and technical level.

Production concentration is carried out through the expansion, reconstruction or technical equipment of existing enterprises and the creation of new large enterprises and associations. This process leads to the emergence of large production cells on a centralized production base. Therefore, the expansion of the size of enterprises is considered as a result of centralization, and centralization is considered as one of the forms of concentration.

Concentration in construction, like in other industries, has its own characteristics, which is explained by the fact that the construction product is real estate and the classification of production. Therefore, concentration is carried out in two directions: by enlarging construction organizations and expanding the volume of construction sites or construction and installation work on one site.

There are three main types of specialization as a form of social organization of production: sectoral, detailed, and technological. Each sector of the economy may be subject to all or only some of the above types of specialization, depending on their classification in production.

There are two forms of specialization in construction: the first form is sectoral, or object-based - this form is expressed in the creation of economically independent specialized organizations; the second form is technological or process-based - this form is expressed in the creation of economically independent construction organizations specializing in the performance of homogeneous types or complexes of construction and installation works. These organizations perform, for example, sanitary-technical, electrical, equipment installation, and the like.

The expansion of specialization across sectors is determined by the ever-expanding scale of construction of residential and cultural facilities aimed at improving the well-being of the population.

As a result of this process, construction organizations gradually separate their areas of activity and specialize in a specific sector. In particular, they are focused on the construction of residential buildings, objects of social and cultural importance. At the same time, the sectoral specialization of construction organizations directly depends on the specific characteristics of each sector, aspects of production technology, constructive solutions of buildings and structures, and the technology of their construction.

Cooperating–This is one of the forms of production relations between enterprises and organizations that jointly produce certain products.

Cooperation in construction is understood as organizationally strong production relations between economically independent organizations and enterprises participating in investment processes. In practice, such a connection or dependence is expressed in the joint performance of work by organizations and enterprises on the direct construction of construction objects, as well as the joint supply of equipment, materials, and the joint provision of services.

Cooperation in construction is necessary due to the large number of production processes, technological and organizational complexity, and the entire investment process. Therefore, several organizations and enterprises participate in the construction of facilities, which are required to carry out work on the basis of thorough coordination. Production cooperation in construction is carried out by organizing production and legal cooperation between the customer, general contractor, subcontractor and other organizations.

The completion of works in accordance with the tender contract and on time is also achieved by strengthening the discipline agreed upon between construction participants and organizations supplying materials, as well as by providing economic incentives for timely and high-quality work. The level of cooperation in the construction sector is determined, first of all, by ensuring the continuity and rhythm of the construction process. At the same time, it is also assessed by the level of effective use of the existing production capacities of organizations carrying out construction and installation works, as well as the state of their material and technical base and provision of labor resources.

Conclusion. In market conditions, the modernization of the material and technical base of construction enterprises requires new approaches: the introduction of innovative technologies, the use of digital management systems, and the attraction of investments are important. At the same time, cooperation between industrial enterprises and research institutions expands the development and implementation of new technologies. Studies show that the modernization of the material and technical base is crucial for increasing the competitiveness of the industry.

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