THE PLACE OF BUILDING TERM RESERVE IN CONCEPT OF ORGANIZATIONAL PROCESSES OPTIMIZATION FOR BUILDING PRODUCTION OF CONTRACTING COMPANIES

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The deterministic basic unit of the building production organizing system is a production process that substantially represents systematic and purposeful change in time and space of quantitative and qualitative characteristics of production means for the receipt of finished construction products with a given qualitative indicators. In a larger sense, organization of building production involves a whole cycle of production processes and is directed towards the organizational, technical, technological decisions, methods and measures of contracting companies to comply with the requirements for a rational organization of production processes; coordinated activity of all executors, taking into account their production and economic opportunities and aims; building production with individual characteristics and conditions of projects; quality assurance of constructions, terms and cost of building according to financing conditions.

By definition organization of building production means a complex interconnected hierarchical structured system of functional and target preparation of contracting companies for production of certain types or complex of building works with allocation of general priorities and building terms, the supply of all kinds of resources for achievement of efficiency and required quality of works, projects in general [1].

Intensification of negative factors and influence causes of domestic construction market are reflected in organization of building production and implicitly generate the emergence of organizational failures in building productions with a probability of 32,1%. Resistance to these negative factors by organizational system is determined by its reliability. Furthermore, the reliability of building production organization is determined by a probability, that at anytime the values of controlled parameters don't exceed the limits of permissible deviations average more than 2,4-10% [2].

Broadly speaking, nowadays there is a tendency of optimization for organizational processes of building production within the framework of state policy in the construction field. It is important to emphasize that such situational distribution, for the most part, doesn't correspond to the specific interests of construction customer and contracting

companies, since distinctively doesn't regulate the clear and specific permitted level, and reasoned legal support for risks and failures of building production. Based on experience of other countries, it can be argued that the greatest impact is inherent in organizational system of building production established by contracting companies themselves. Clearly, contractors in the person of their Managing Directors are best aware of criteria by which a building production should be organized, and what requirements should be set before organization of building processes in order to eliminate opportunities for appearance of poor-quality construction products.

The formation of clear and transparent functioning of building production, through optimal transformation and creation of fundamentally new or modernized systematic approaches for the building processes organization, creates the fundamental principles of building optimization. As can be seen from this, primary function of the building production optimization is determination a conformity of building organization of contracting companies to requirements that are imposed on participants in building business; analysis of contractors' activity, making recommendations for its modernization; information provision and adaptation to market requirements, for example, on changes in legislative framework [3].

However, optimization criteria can be initiated and applied only to specific elements of organizational system, so overall approach is ultimately inappropriate. Moreover, one argument against this cannot be ignored: it has topical a development of specific and distinct optimization models, which are aimed not only at increasing stability of organizing system, but elimination or adaptation to specific negative factors in building market. The authors of more recent studies have proposed a number of optimization models for building production, diverse in terms of classification, form and content, but outside of their variation, optimization models are aimed at ensuring reliability of building processes, namely formation and implementation of methods for the works organization most appropriate for reliability indicators; development of ways to create time and resource reserves as part of organizational solutions that enhance of reliability level; formation of duplicate organizing methods in individual complexes of works that ensure compliance with accepted reliability indicators; development of compensation for possible external influences to improve a competitiveness level of contracting companies [2, 3].

Implementation of stated principles requires development of system for assessing the level of building processes reliability, which should consist of quantitative and qualitative indicators. This approach was developed and reflected in calculation and application concepts of building term reserve [1].

The building term reserve is commonly understood to mean a volume of capital investments or building works, which must be realized in fact at site and in due course goes to the next scheduled periods. Beyond dispute, the purpose of term reserves is to ensure systematic using of Property, Plant & Equipment (PP&E) and rhythm of building processes.

Against this background, building term reserve is determined by estimated cost in the Bill of Quantities (BOQ) or in physical units of measurement according to project. Thus, according to previous, the estimated cost of works, which has been executed in current year on transitional buildings and will be put into operation next period, is defined as a building capital reserve. Determination of building reserves at estimated cost indicated in the BOQ of contract is necessary for planning capital investments and a volume of construction in progress, control its size. Withal, the main factors determining the size of term reserve are normative duration and date of putting into operation, according to the calendar plan of building, which is directly an integral part of contract [3].

Legal documents regulating a procedure for the term reserve calculation were canceled and considered as void in Ukraine. Nevertheless, the methodology of its calculation is a means of systematic concentration of material and organizational resources, which helps to accelerate the using of PP&E and control the volume of building. In other words, calculation methodology of term reserve for today remains relevant even outside the Ukrainian system of legal regulation, and may be assimilated to the current needs of building market and requirements for the building production organization, to form an innovative approach to generation of a new optimization model [1, 2].

Scientifically, the calculation bases update of the above-mentioned model potentiates contracting companies to the most substantial achievement of set goals within the framework of strategic planning; balancing a ratio, which characterizes the part of works and tasks are been done in time; decrease in number of building defects, increase a quality level of completed projects; progression for organization of material and information flows; increasing dynamics of building production with using of optimal resources amount; merger of competitiveness level.

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