

Theoretical aspects of studying the problems of corporate planning in construction companies

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Abstract. In accordance with full economic responsibility for the results of economic management and aims of production development, construction companies demand business planning. The paper considers the principles of business planning, including continuity, in accordance with which a three-level development of business plans is appointed: firstly, integral organization, then organization of its production and production service areas, and finally organization of gained contracts. The author proposes the composition and structure of business plans coupled with the system of operational and production calendar planning of construction production and budgeting of production-and-business activities. The paper also offers the development of internal passports of the applied technologies for construction and installation works, which allow having real rates of consumption of production resources for operational and production planning of construction and installation works.

1 Introduction

The current state of the construction sector and modern conditions of management pre-determine new approaches to the definition of production capacities in the construction industry. The definition and calculation of the capacity value of the construction and technological complexes of the construction and installation companies should comprise the basis of economic management for the performance of construction and technological sets of work.

The following building-technological complexes can be of service: set of earthworks; of erecting monolithic concrete and reinforced concrete structures; of the performance of brick and stone work; of installation of reinforced concrete and metal structures; of finishing, insulation and roofing works; of electrical and other montage works, etc. Moreover, the above mentioned complexes will be different in different construction and installation companies. For instance, the mechanic, technological and organizational equipment of building-technological complexes when erecting residential buildings of monolithic reinforced concrete will differ from those when constructing chimneys and cooling towers of the same monolithic reinforced concrete [1]. The complexes of the construction of reinforced concrete framing for industrial buildings will also demand different equipment.

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However, justified estimations and production capacity, as well as all other characteristics of production and economic activity demand the appropriate rules and standards, primarily the consumption rates of production resources.

Today the conditions of management fundamentally differ from the conditions that were peculiar to the planned centralized economy of the pre-reform period. Therefore, before elaborating and making recommendations on the system of corporate planning of production and economic activity, it is necessary, firstly, to define the planning process reflecting its goals and content that are adequate to the new economic conditions; secondly, to reveal the essence and content of changes in conditions of management.

2 Materials and Methods

The author offers the following definition of corporate planning as a part (a sub-process) of the system of managing the production and business activities of enterprises and companies: defining a system of measurements and measures to achieve the goals and the economic results corresponding those goals.

As for the nature and content of changes in the economic conditions of construction companies as economic management entities, the main ones are the following. The first is the absence of centralized prospective five-year plans (with dividing by years) that existed in the past and annual planning of the performance of construction and installation work volumes and commissioning of facilities. This procedure ensured the reality and a certain stability of the going annual production plans. The program of work and commissioning of facilities was formed in a second half of the previous year, taking into account (and within the framework of) the gained general contract agreements with relatively regular customers.

The results of studies carried out by Russian and foreign scientists [2, 3] indicate that currently the search for contracts and accordingly the formation of the production program represent a process which is permanent over time under the absence of centralized planning for the development of industries and sectors of the economy. This process has a large degree of randomness, both in terms of volumes, contracts' implementation dates, and in terms of their implementation costs. These facts change the content of planning of the production program, as well as complicate the work of planning services/bodies, especially of general contracting construction companies, which have to find sub-contractors to perform special works when erecting important facilities.

The second factor of change in the business environment of construction companies affecting the process of planning the financial results of their production and management activities is that the order of payments by customers for the final construction products or for performed construction and installation works has changed. Today, these calculations are carried out not pursuant to fixed estimated prices, but pursuant to contract prices. When concluding a contract, those prices are accepted according to prices calculated with estimated rates, although being generally less. Moreover, payments for construction and installation works can be made every ten days or monthly for their actual volumes; for intermediate construction products (completed construction and installation works, parts of buildings or structures); for final construction products (buildings and structures put in commission).

The factor of inconsistency and uncertainty of market prices for building structures and building materials is also closely related to the above-mentioned factor. The combination of these factors increases the level of uncertainty when calculating production costs and bare costs of construction and installation works, and the second factor influences the amount of demand for working capital.

The consideration of principles is of great importance in the development of specific recommendations and methods of planning the production and economic activity. The main of these principles are complexity, consistency, continuity, objectivity, efficiency.

The principle of complexity implies taking into account as many factors influencing the planned indices of production and production-and-economic activity as possible. This refers largely to the planning of production costs, the bare cost of construction and installation works, and labor productivity. This principle is closely related to the principles of necessity and sufficiency, which transmit that “one cannot square the circle”, therefore a reasonable limit is needed to take into account the factors affecting the planned indicators.

The requirements of the consistency principle are closely related to the requirements of the complexity principle, and conditioned by the fact that all factors and conditions of production and economic activity are closely interrelated and interdependent. The effect and observance of this principle determines the exclusion of re-registration of actions and manifestations of the specified factors and conditions.

The thing that should be especially revealed is the essence of ensuring the performance of the continuity principle. In the pre-reform period of the centrally planned economy, the principle of continuity implied the unity and interconnection of plans and plan indicators at all levels of management of the industry, ministries and agencies, including the stage of return planning. At the stage of the so-called return planning, the target numbers of the planned aims went from the top down to the primary construction and installation companies, which, based on the analysis and evaluation of their production capacities and possibilities, gave suggestions on how to adjust them to the increase or reduction. The higher planning bodies took into account these proposed adjustments and finally determined the planned aims for the volume of construction and installation works, for the commissioning of facilities, for labor productivity and wages, for the cost of construction and installation works and for profit.

The principles of objectivity and efficiency respectively determine that all planned calculations must be justified by calculations with the use of sufficient and objective information and initial data, while plan indicators of the results of production and economic activity should not be lower than the set goals.

3 Results

Modern business conditions and requirements of the principle of planning continuity determine the presence and unity of the following business plans: production and economic activities of the construction organization as a whole; construction sites and other units in the framework of their budgeting [4]; execution of contracts in conjunction with item-by-item construction plans, including cost plans for production resources.

It is proposed to draw up business plans for production and business activities as part of the on-going annual and long-term planning of production and business activities for a period of 3-5 years. The on-going annual business plan should contain:

- the annual planning production program with dividing by quarters and months, containing the planned production volumes of construction and installation works and commissioning to customers, including final products of construction - completed construction projects, the volume of work transferred to subcontracting construction companies for performance;
- a consolidated calendar plan for the construction and installation works at the facilities of the concluded contract contracts with a breakdown into those performed by own forces and carried out by subcontracting construction and installation organizations and indicating the deadlines for presenting the objects to be delivered to customers;
- targets for labor: the need for workers and the source of its coverage; the cost of wages is common and in areas of production and production services; labor productivity;
- the planned costs of construction production and management, the planned cost of construction and installation works;

- estimated overhead costs;
- financial plan of results and financial support of production and economic activity;
- consolidated balance of cash receipts, production and economic expenses, revenues and profits;
- production development plan, including financial support for its implementation.

The author suggests considering "filling the available production capacity" of construction and installation companies as the basis for planning their production volumes and formation of their production program in modern economic conditions. However, this demands methods for determining production capacities. This problem was not totally resolved in the pre-reform period for the former economic conditions, although the recommendations of planning bodies contained suggestions on the enlarged balance of capital investments and capacities of the construction industry.

The existing estimate and regulatory system traditionally remains the basis of information and regulatory support for planning the production and economic results of production-and-economic activities of construction companies. This system includes Elemental Estimate Standards, system of federal, territorial and local estimated prices for construction and installation works and price tags for local building materials and structures and the cost of machine-shift operation of construction machines and mechanisms.

In the past, when planning construction production and economic results of production-and-economic activity, it was recommended to set the planned consumption rates of resources equal to those in the Elemental Estimate Standards with their amendment downward in accordance with the planned measures of increasing the efficiency of construction production. In fact, these rates were in the past and are now set equal to those contained in Elemental Estimate Standards without the indicated amendments. [5]

However, if taking into account that, firstly, the current Elemental Estimate Standards and consequently technical and economic calculations are designed for intermediately progressive technologies adopted in their development and for methods of production of construction and installation works, and, secondly, new building materials and structures are used, new design and construction solutions for buildings and structures are being introduced, then it can be reasonably concluded that planned costs of construction production are bias and inadequate to their realities. A fundamental change is demanded in principles of and approaches to pricing and in management of costs of construction production.

The solution of this problem lies in the development of internal passports for actually applied technologies by construction and installation organizations (the performers of construction and installation works) [5].

The first part of such a passport, which is mostly illustrative, should contain a description of technology and methods of execution of construction or installation works, including data in the form of diagrams and figures, indication of required work equipment. Meanwhile the second part should contain data on the required labor costs, construction materials and structures, prepared erection units, usage time of construction machines, means of horizontal and vertical transportation of materials and structures.

The presence of the proposed passports will allow construction and installation companies to have their own actual rates of labor, usage time of construction machines required in terms of productivity and carrying capacity, construction and technological vehicles that correspond to the technologies applied. Consequently, the tangibility of the planning process, planned indicators, operational-production scheduling and finance result of production and economic activity will increase.

All the above said concerns the corporate planning of the production program and the results of its execution. However, the planning of company's production capacity is also an important aim and component of the entire system of corporate planning in construction organizations, which belongs to the field of strategic planning.

4 Discussions

The definition, planning of loading and development of production capacity is a problem of major importance, which was not finally resolved within the pre-reform period, although there were a number of developments and practical proposals in this area [6].

As mentioned above, today the state of the industry and the conditions of production and business activities of construction and installation companies have radically changed, therefore the available developments in terms of methods for determining production capacities require rethinking and processing.

According to E.P. Pankratova and O.E. Pankratova, the main source of simple renewal of fixed assets is charged depreciation, which is currently not distinguished as a separate line item in the balance sheet. In this regard, it is proposed to take into account the charged depreciation and its expenditure on the renewal of fixed assets in financial plans of construction organizations [6].

5 Conclusion

Today, another source for the formation of production capacities of construction and installation companies is the lease of construction machines and means of construction-and-technological vertical and horizontal transportation of building structures and materials. Therefore, when balancing planned production volumes of construction and installation works with capacities available, it is necessary to consider construction equipment on lease terms, since lease can be a factor of unweighting possible “peak” loads.

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