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**Key words:** urban investment and construction sector, business reliability, construction company, enterprise strategy, production and economic potential



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## STRATEGIC ASPECTS OF THE PRODUCTION AND ECONOMIC POTENTIAL OF URBAN INVESTMENT AND CONSTRUCTION SECTOR

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*The formation of the production and economic policy of enterprises of the urban investment and construction sector presupposes determination of objectives and development strategies for the short and long terms, based on the potential capabilities of each enterprise and its provision with appropriate resources. The article presents the organizational and managerial analysis of the overall assessment of the enterprise potential and functional areas to identify enterprise's strategical strengths and weaknesses. The analysis of such components as the intensity of construction (reconstruction), labour productivity, technology and management of construction production, urban planning value of the renovated (built-up) area, corporate relations as well as the competitiveness of the company's construction products.*

*Key words: urban investment and construction sector, business reliability, construction company, enterprise strategy, production and economic potential*

### INTRODUCTION

When forming the strategy of enterprises of the urban investment and construction complex (UICC), first of all, it is necessary to determine whether an enterprise has internal reserves in order to take advantage of external capabilities, and whether it has weaknesses that can create problems related to external risks; i.e. it is necessary to carry out an organizational and managerial analysis of the current situation, which is a general assessment of the enterprise potential and functional areas to identify enterprise's strategical strengths and weaknesses [1, 2, 3]. It is necessary to analyze such components as the intensity of construction and reconstruction, labour productivity, technology and management of construction production, urban planning value of the renovated (built-up) area, corporate relations as well as the competitiveness of the company's construction products, etc.

When studying the above components, it is essential to pay special attention to the competitiveness of construction products and the potential share of the market occupied by the UICC enterprise, the quality and range of construction products and materials, and the resulting profit. Such factors as the analysis of market changes, the development of new building materials and technologies by competitors, the quality of consulting services, after-sales maintenance of construction objects, availability of the effective sales system for finished building products and materials, and the effectiveness of advertising to promote construction products are also of importance.

An important element of fulfilling the potential of an enterprise is a continuous analysis at the level of construction production operational planning [3, 4]. When identifying

the strengths and weaknesses of the organization and management of construction production, it is necessary to analyze the following tasks: whether a UICC enterprise can sell finished construction products or provide maintenance services at a lower price than its competitors; whether this company has access to new building materials in the construction market; what kind of technological equipment is used by this construction industry enterprise; whether this enterprise's procurement system is aimed at reducing inventories and the implementation time of the territorial cluster-portfolio of the orders for real estate items; whether there are suitable control mechanisms over the material resources and the finished construction products; whether the company's products are subject to seasonal fluctuations in demand; whether the enterprise can serve markets that its competitors cannot serve; whether the enterprise has an efficient and effective quality control system; the effectiveness of the technological process of construction production [5].

### TERRITORIAL ECONOMIC POTENTIAL OF UICC ENTERPRISES

The territorial economic potential of UICC enterprises is the maximum possible output of finished construction products (services) as well as the share of the coverage of the construction market, subject to the effective use of all means of construction production and available resources. 'Maximum possible' should be understood in terms of compliance with the following conditions: the maximum possible level of profitability of construction production; the high level of application of advanced construction equipment and technologies; modern organizational forms of management and production, the presence of a system for stimulating labour productivi-

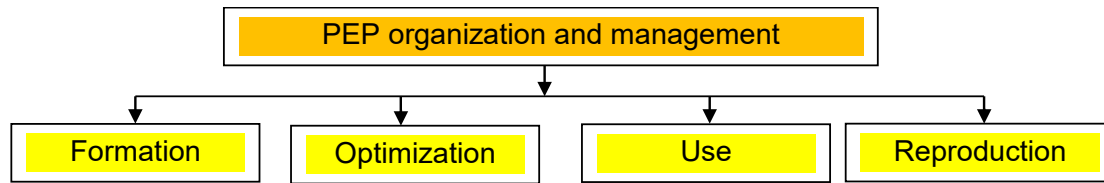


Figure 1: The main tasks of organizing and managing the UICC enterprise production and economic potential (PEP)

ty. In contrast to the production and technical capacity, the territorial economic potential is characterized by an optimal, in real conditions, combination of scientific and technological progress with the use of all financial, organizational, production and technical capabilities of UICC enterprises for the production of competitive finished construction products. Information concerning the state of the external environment and the production and economic potential (PEP) of an enterprise is the basis for the formation of an UICC enterprise strategy. As [6, 7, 8, 9, 10] showed, in the system of strategic enterprise management, PEP management is a complex and rather difficult task. On the one hand, the solution of this task requires a profound study of the issues directly related to the management theory of the enterprise PEP and on the other hand, the revision and adjustment of the elements of the strategic enterprise management system by increasing business reliability of investment decisions [11, 12, 13].

#### THE TASKS OF ORGANIZING AND MANAGING THE UICC ENTERPRISE PEP

Based on the foregoing, the following tasks of organizing and managing UICC enterprises PEP can be distinguished (Fig. 1): formation, optimization, use, and reproduction.

Let us consider the essence of the listed tasks in brief.

**PEP formation** is a process of identification and creation of enterprise capabilities, structuring and construction of certain organizational and managerial forms for enterprise sustainable development.

The formation of an enterprise's PEP takes place when an enterprise is established or when the organizational and management system of an enterprise is transferred to a qualitatively new state (e.g. reorganization, restructuring, etc.). The formation of PEP is influenced by various factors, including the scope of construction activities of an enterprise, its size, the range and features of the manufactured construction products, the region and location of an enterprise, goals and development strategies, etc.

**PEP Optimization** is the process of forming a structure relevant to the enterprise's type, activity and objectives. An optimal structure of the enterprise's PEP is such a structure, in which each element meets the corresponding requirements, i.e. it has such a size and quality content that are necessary for the sustainable functioning and development of this enterprise, the implementation of the chosen strategy and the achievement of the objectives set.

It should be noted that the concept of 'optimization of the PEP structure' differs from the concept of 'the use of enterprise investment resources'. This difference is due to the fact that it is not always possible to achieve the optimal structure of enterprise potential by optimizing the use of enterprise resources. The process of PEP structure optimization can include the following stages: examining, assessment and analysis of the existing structure, the size and quality of its constituent elements; establishment of the requirements for the size and quality of the elements of organization and production according to the level of investment intensity of construction.

**PEP use** is the process of implementing the total capabilities of an enterprise. Any operating company uses its own PEP to a greater or lesser degree. One of the main tasks of the PEP organization and management is to increase the level of its use to the optimal state, which is determined based on the objectives and strategies selected for the development of this or that enterprise.

**PEP reproduction** involves the process of continuous renewal of all its components. Considering reproduction, the following types can be distinguished:

- simple reproduction which is carried out in constant volumes to update the consumed production resources and ensure the continuity of enterprise operation;
- expanded reproduction which provides for the quantitative and qualitative development of economic and organizational production resources and other components of construction production which ensure higher effectiveness of enterprise activities.

The value of urban potential is quantitatively determined by the maximum possible output of the gross urban product for the existing amount of economic resources and conditions that determine their maximum use. In this case, the total urban potential ( $Q$ ) can be represented by the following multifactorial function:

$$Q = F(L, K, P, I, M) \quad (1)$$

where  $L$  is the labour potential of the active population of the territory;  $K$  is the production and economic potential, i.e. the potential of the fixed and material components of circulating assets concentrated in a given territory;  $P$  is the natural resources potential of the territory;  $I$  is the innovation potential or the potential of scientific and technological progress;  $M$  is the intra-company turnover, characterizing the work of the production system for itself (includes the consumption of raw materials, other materials, fuel, energy, etc.).

Then, the labour potential ( $L$ ) of the active population can be expressed by the function:

$$L = f(R, Y_E, Y_H, Y_{SL}) \quad (2)$$

where  $R$  is the number of active population;  $Y_E$  is the median level of education of the active population;  $Y_H$  is the indicator of the health of the population of the territory, taking into account the quality of the environment;  $Y_{SL}$  is the standard of living of the population of the territory.

In the general case, the production and economic potential ( $K$ ) can be expressed by the dependence:

$$K = f(F_{rv}, \gamma_a, F_{ob}, Y_T) \quad (3)$$

where  $F_{rv}$  is the residual value of the city's fixed assets;  $\gamma_a$  is the share of the active part of fixed assets;  $F_{ob}$  is the average annual balance of the material component of fixed assets;  $Y_T$  is the indicator of scientific and technological progress that affects the return on assets.

Natural resource potential depends on the amount of the corresponding natural resources, their productivity, the qualitative impact of the state of the environment [14].

The natural resource potential is defined as follows:

$$P = f(B, \rho, r, Y_E) \quad (4)$$

where  $B$  is the amount of a particular type of natural resource;  $\rho$  is the specific productivity of the resource, taking into account the impact of the quality of the environment;  $r$  is the content of the useful component, which reflects the quality state of the resource;  $Y_E$  is the indicator that takes into account the impact of environmental quality on the productivity of the natural resource.

In this case, the innovation potential can be ignored since this indicator indirectly affects the labour and innovation potentials.

The amount of waste generated ( $Z$ ) is generally a function of the production volume of the final product ( $Q$ ) and the intermediate product ( $m$ ), i.e.:

$$Z = f(Q) + f(m) \quad (5)$$

As a result of environmental protection measures, a certain amount of waste is captured and neutralized, then:

$$Z_{cp} = Z - \Delta Z \quad (6)$$

where  $Z_{cp}$  is the amount of waste released into the environment;  $\Delta Z$  is the amount of captured and neutralized waste.

Then,

$$\Delta Z = f(R_z) \quad (7)$$

where  $R_z$  is the consumption of labour, capital and natural resources for the disposal of production waste.

The level of pollution of environmental components is described by the following expression:

$$P_E = f(\Delta Z, S, I) \quad (8)$$

where  $S$  is the indicator that takes into account the assimilation potential of the environment;  $I$  is the indicator that takes into account the conditions for the spread of harmful substances in the environment.

The developed theoretical and methodological foundations for modelling the processes of regional PEP functioning and development make it possible to create a mathematical multilevel model of this process.

The mathematical model of the functioning of the city's potential allows us to solve the following tasks:

- Analysis of the effectiveness of using the resources of the region and assessment of the role of each of them in the production of the gross regional product;
- Analysis of the possibilities of replacing resources;
- Assessment of the influence of the shares of the distribution of the regional urban product, the rate of the development of scientific and technological progress and the quality of the environment on the reproduction of the regional potential;
- Making short-term and long-term forecasts of the development of the territory on the basis of the dynamized model;
- Ensuring optimal management of UICC based on the maximum use of labour, production, technical and investment resources.

### KEY RESULTS AND CONCLUSIONS OF THE STUDY

Based on the analysis of the tasks of organizing and managing the enterprise PEP, it can be concluded that the effective use of PEP is strategically important. In this regard, PEP management is an integral part of the process of the strategic management of UICC enterprises [15]. The main stages of the PEP management process will be organically included in the stages of enterprise strategic management. The strategic management process, taking into account PEP, includes 8 stages (Fig. 2)

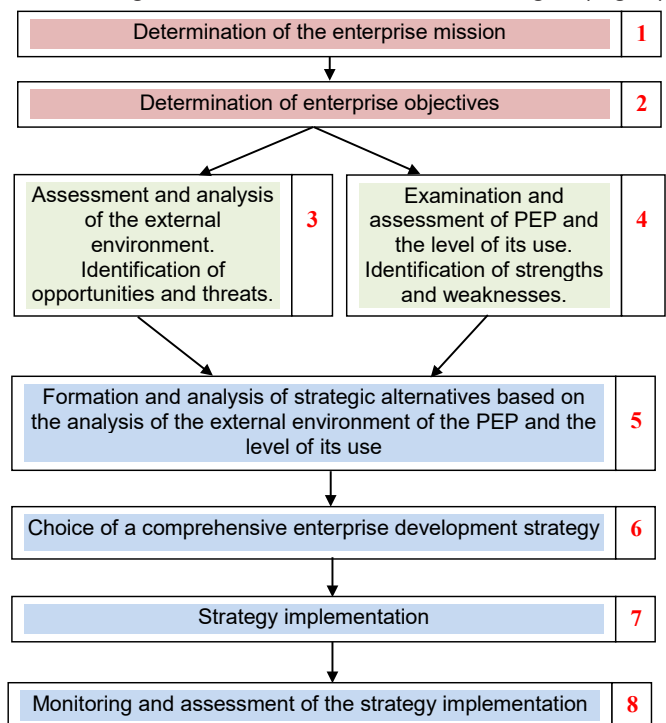


Figure 2: Place of PEP in the UICC enterprise strategic management system

Let us briefly describe the content of the main stages of the strategic management process, built taking into account the PEP of an enterprise:

**Stage 1.** Determination of the mission of an enterprise implies determining a general direction of actions. Mission is the 'philosophy' of an enterprise, the reason for its existence, its purpose.

**Stage 2.** When determining objectives of an enterprise, it is necessary to distinguish between its strategic and production objectives. The problem of resource allocation in determining the objectives can be solved by building a 'tree of objectives' according to the principle of decomposition, i.e. from a general organizational and production objective to sub-objectives of the lower level.

**Stage 3.** Assessment and analysis of the external environment can be carried out in several directions:

- Analysis of environmental factors of direct and indirect impact;
- Analysis of the compliance of the development of functional units with the company's strategy (customer needs);
- SWOT analysis [16, 17] as the final stage of the analysis of the external environment; it is an assessment of the balance of opportunities and threats of the external environment, the strengths and weaknesses of an enterprise. It is important that the sum of points characterizing the opportunities and strengths of an enterprise should exceed the sum of points reflecting threats and weaknesses of this enterprise.

**Stage 4.** At the stage of management survey of the strengths and weaknesses of an enterprise, in addition to studying the actual state of the enterprise system and the results of its functioning, examination and assessment of the PEP and its constituent elements are carried out.

Since, to a greater extent, the opportunities of an enterprise are interrelated and the nature of these relationships may be different (e.g. some opportunities can be mutually exclusive), then at the end of the procedure of identifying opportunities, the enterprise may receive several alternative options that need to be evaluated. The best set of potential opportunities from the point of view of the objectives and results of implementation can be considered as the PEP of the enterprise.

At this very stage, the requirements for the optimal PEP structure are determined. The actual structure of the PEP is checked for optimality, and the values of excess, insufficient and unrealizable potential are determined for the elements of technology and production, taking into account the bottlenecks.

**Stage 5.** Based on the analysis of the external environment, evaluation of PEP and the degree of its use, strategic alternatives for the development of the UICC enterprise are formed and analyzed. The analysis of strategic alternatives is carried out from the standpoint of their compliance with the key statements of the mission,

enterprise objectives, taking into account the risks of implementing strategies and other factors.

**Stage 6.** The final strategy for the enterprise development is selected. First of all, the main directions of the enterprise development and PEP development are opted. These include supporting strategies such as construction output growth strategy, structure optimization strategy, and capacity development strategy. The development of functional strategies in the areas of the subdivisions' development is carried out within the framework of the strategy for the use and development of UICC enterprises PEP.

**Stage 7.** The implementation of the chosen development strategy of an enterprise is carried out by making changes both in its structure and production, developing tactics, policies, rules and procedures. The first stage of the changes should involve the disclosure of the capabilities of the production and economic potential of the UICC enterprise.

**Stage 8.** Monitoring and assessment of the results of the implementation of the strategy is carried out in the traditional way. At this stage, actual results achieved are compared with the planned indicators. This requirement also applies to the plans for the use and development of PEP.

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