Role of Innovative Development in Implementation of Competitive Strategy of Business Organizations in Construction

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Abstract—The article substantiates the feasibility and effectiveness of innovative development in the formation of a competitive strategy for a construction company. It is competitive strategies that represent the directions for realizing the competitive potential, which reflects the competitive advantages of an entrepreneurial organization. The choice of strategy as a “measure of readiness” to achieve goals in the field of innovative development of the enterprise depends on the innovative potential. Experience shows that despite the constant increase in the importance of innovations, not all companies have to introduce new technologies: some small enterprises are not able to develop them, or it makes no sense for enterprises in a state of decline to modernize production. In this regard, it is necessary to determine the conditions under which it is advisable for companies to develop new products. First of all, this is when there is a threat of obsolescence of existing goods, new needs of buyers appears, tastes and preferences of consumers change, the life cycle of goods decreases, and competition increases. The authors of the article propose to use the model of innovative development in the management practice of construction enterprises, within the framework of which, the result of a sequence of actions is the development of a competitive strategy for the production and sale of construction products, taking into account the synthesis of the interests of subjects participating in the innovation process at the enterprise.

Keywords—innovative development, innovation, competitive strategy, competitiveness, construction company

I. INTRODUCTION

As the environment is constantly changing, the construction business organizations appear to compete. The economic nature of the modern competition modifies but not rejects the basic principle of rivalry – the principle of rivalry [14]. The construction companies involved in the competition and having the competitive opportunities which composition and structure correspond to the innovative development tasks face the necessity to undertake several simultaneous actions:

• survey of manufactured product consumer needs;
• survey and analysis of needs in the products the manufacturing method of which is close to those manufactured by the company;
• survey and analysis of dynamics of scientific and technological progress in construction and the related fields.

Survey of manufactured product consumer needs is aimed at identifying the development trends of these needs considering the opportunities of their satisfaction by the efforts of a particular company. The company reacting to the change in needs can make changes to products manufacturing technology and thus solve the problem of matching supply to demand. By surveying the wider range of needs, covering the kinds of products the manufacturing technology of which is similar to the technology that has been already mastered by the company; the company expands its opportunities for supply to demand matching. The boundaries of the innovative search are expanded and sometimes go beyond the industry [15]. Survey of scientific and technological progress in construction and at the inter-industry level sets the vector of the innovative development of the company. The analysis horizons are rather wide in this case. They are endless from the theoretical point of view but limited by technical and resource potential for a particular company [8].

II. MATERIALS AND METHODS

The innovative potential is analyzed on the basis of combination of both qualitative and quantitative methods (for example, using engineering forecasting methods). The result is a complex of innovative offers that can be implemented in a particular company under certain circumstances [6]. It is important to emphasize that only the trends of innovative search and the vector that will provide for determining not the particular innovative ideas but the method of their search are formed in this case. In fact, it deals with the determination of real sources of an innovative idea for the company. The problem of search for innovative ideas for a construction company is rather comprehensive. The innovative idea can be
rightfully characterized as a business idea that is found in many contemporary authors [2, 3, 13]. The business idea differs from the intellectual idea by its relation to certain objective prerequisites.

The business idea forms a production final result model. It must meet the consumer requirements, interests of investors (save available resources and get a return on it) and interests of entrepreneurs striving for implementing the ideas as they are [10]. The business ideas are formed when exploring the environment, recognizing the conditions for competitive scene transformation, the needs, innovative processes in industries and business areas. A business idea implementation requires using special methods of organizational and economic support [11, 7]. The following methods can be used:

- setting up a new company;
- separate activity within already existing company;
- agreed activity with other business subjects, extensive development of partnership relations.

The selection of any method depends on the following factors:

- the scale of transformations associated with the idea implementation;
- the competitive potential of a small or medium-sized company with all its components;
- company financial status;
- its target priorities, particularly, drive to transition to a group of companies with higher competitive status;
- nature of the competitive strategy selected;
- commitment to (or no commitment to) the principles of entrepreneurship;
- presence of additional competitive advantages (for example, management experience).

It should be emphasized that if the company management is fully aware of the modern competition intensity, trends and nature of interactions attributable to the construction market, the selection will result in transition to a "milder" form - contest-based competition and drive to the agreed actions with other business subjects. And it should be noted that the drive to development of external interactions reflects the external factor impact. But the competitive potential in the part relating to its innovative component is also formed under the external factor impact. Among their entire variety, the most significant ones can be distinguished, thus, the production and process potentials in this case. Although other types of potential of a construction company can be supplemented through external interactions.

### III. RESULTS AND DISCUSSION

The process and production potentials of the construction company are clearly determined [4]. There is always the already accumulated production experience in the form of the mastered technologies, available modern equipment, experience of its using, production facilities, production infrastructure, logistics systems, etc. There is a parallel task - the efficient use of this potential. To solve it, the diagnostics of the production and process potentials should be performed [17]. Such diagnostics should provide for studying the structure of the potential with separation of the elements that:

- Firstly, can be successfully used for further production development on the basis of the innovation used;
- Secondly can be involved in this process when undertaking the relevant modernization measures, such as repair, retooling, etc.;
- Thirdly cannot be used due to physical and moral wear.

According to the results of the diagnostics, it is proposed to form a system of production and process limiting devices and consider them in the determination of the innovative development trends. In addition, it is important to determine and record the real production and process advantages to be saved, used and replenished. It is reasonable to study these components of the internal environment simultaneously with the external factor diagnostics, since the priorities between them are never known. The combination of these processes is the main principle of the innovative search within the framework of business activity. In the places where the results of any diagnostics coincide, the innovative development trends should be searched to ensure competitive advantages [16].

The lack of priorities in these kinds of diagnostics is very important. It is a well-known fact that when building the innovative development models of the company, the impact of the model subject is observed. Some part of such subjects (for example, marketing specialists) is of the opinion that the external environment and, particularly, the need and consumer demand should be primary and set the production development parameters [18]. And the other part, which is, as a rule, the specialists in production process management and planning, give priority to the available resources [1]. Both positions may have the right to exist but neither of them can be recognized as fully justified. The internal control system improves the efficiency of functioning and economic development, representing a way of business expertise [20].

The efficiency conditions are unchanged: this is the resource weighted goal-oriented activity [9]. That is why this study emphasizes the equal significance of internal and external factors of innovative development that was determined by the management theory but distorted in practice. In the construction companies, such distortions appear to be most vivid as the factor analysis and formation of the relevant managerial decisions are the prerogative of a rather limited circle of people (top managers) and depend on their views, that is, subjective.

![Fig. 1. Model for the formation of a competitive strategy for the production and sale of innovative products](image-url)
Considering the above, it is suggested that the construction companies use the innovative development model in the practical management (figure 1). The result of the sequence of actions within this model is the development of competitive production strategy and construction products (works, services) sales.

IV. CONCLUSIONS

In conclusion, the peculiarity of this model, along with the above, is the assessment of the formed complex of innovative products that are supposed to be introduced from the consumer point of view, the company itself and investors. Similarly to the results of two kinds of diagnostics, a synthesis of interests of the subjects participating in the innovative process in the company is required. Assessing the degree of conformity to these interests is possible by using the development of the innovative products indicating system. For this purpose, the known planning and forecast methods can be used.

REFERENCES

[1] K.O. Bulgakova, “Identification of risk zones and systematization of risks arising during implementation of the investment program in social housing construction”, Science Review, no. 22, 2015, pp 366-369.

[2] V.V. Buzyev, Modern methods of housing construction management, Moscow: INFRA-M, 2016.

[3] L. Egorova, “Actual aspects of modeling method application in organization of construction management”, IOP Conference Series: Materials Science and Engineering, vol. 687, 2019, p. 044005, DOI: 10.1088/1757-899X/687/4/044005.

[4] O.A. Egorova, “Application of the engineering forecasting method in managing the competetiveness of a construction company”, IOP Conference Series: Materials Science and Engineering, vol. 698, 2019, p. 077029, DOI: 10.1088/1757-899X/698/7/077029.

[5] E.I. Evseeva, “Social housing construction in Russia: reality and development prospects”, Science Review, no. 21, 2015, pp 218-220.

[6] N.N. Frolova, “Use of modern technology of information modeling in capital construction objects life cycle management”, IOP Conference Series: Materials Science and Engineering, vol. 687, 2019, p. 044002, DOI: 10.1088/1757-899X/687/4/044002.

[7] A. Khakimov, “Methodology for assessing and improving the competitiveness of enterprises in the real sector of the economy”, E3S Web of Conferences, vol. 91, 2019, DOI: 10.1051/e3scconf/20199108059.

[8] T.B. Klimgova, and O.V. Vaganova, “Innovative processes intensification in the region on the basis of economics clusterization”, Proceedings of Voronezh State University, Series: Economics and Management, no. 2, 2009, pp 47-53.

[9] T.V. Maleeva, “Analysis and evaluation of financial resources of social housing construction in city”, Materials Science Forum, vol. 931, 2018, pp 1118-21, DOI: 10.4028/www.scientific.net/MSF.931.1118.

[10] V.A. Martynov, “Innovation processes in construction: formation of the system of investment of innovation processes”, Problems of modern economy, no. 3, 2015, pp. 261-264.

[11] E.V. Pesotskaya, “The role of active strategies in the orientation of construction enterprises to an innovative model of development”, Proc. XII St. Petersburg Congress “Professional education, science and innovations in the XXI century”, PGUPS, St. Petersburg, 2018, pp 191-192.

[12] E.V. Pesotskaya, “Development of the methodological foundations of entrepreneurial activity as an effective tool for solving socio-economic problems of the regions”, Proceedings of the III International scientific and practical conference “Regional economy: technologies, economy, ecology and infrastructure”, TuvIENR SB RAS, Kyzyl, 2019, pp. 205-211.

[13] E.V. Pesotskaya, “Analysis of approaches to the implementation of programs for the urban complexes reconstruction in Russia”, Conference Series: Materials Science and Engineering, vol. 753, 2020, p. 032044, DOI: 10.1088/1757-899X/753/3/032044.

[14] L.G. Selyutina, “Actual aspects of the shaping marketing invested decisions in sphere housing construction and reconstruction dwelling”, INZHEKON Bulletin, Series: Economics, no. 1(28), 2009, pp. 5-10.

[15] L.G. Selyutina, “Development reconstructive-building activities for the formation of investment offers on the market housing in Russia”, Kant, no. 3 (20), 2016, pp. 126-129.

[16] N.E. Solovjeva, “Factors of influence on developments of small and medium business”, In the World of Scientific Discoveries, no. 11-7(71), 2015, pp. 2766-2771.

[17] O.V. Vaganova, A.B. Titov, N.E. Solovjeva, and N.I. Bykanova, “Influence of the sanctions regime on the regional innovation system formation (the case of the Belgorod region)”, International Journal of Economic Perspectives, vol. 11, iss. 3, September 2017.

[18] N.V. Vasiliev, “Development of housing fund's reproduction forms: a terminological aspect of the problem”, Journal of the news of higher educational institutions. Construction, no. 1(529), 2003, pp. 114-118.

[19] A.N. Vasiliev, “Improvement of the organization of management of investment processes of innovative activity of enterprises of the construction complex”, Investment and Innovation Management, no. 1(1), 2007, pp. 46-55.

[20] O.V. Vaganova, N.E. Solovjeva, S.V. Yevdokimov “Overview of changes in the taxation of agricultural producers in Russia”, Research Result. Economic Research, 6(3), pp. 3-12.