Conceptual framework for managing the competitiveness of the entrepreneurial structures

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Abstract. The paper is devoted to the development of a methodological apparatus for ensuring competitiveness in the formulation of methods and algorithms for assessing competitiveness and its provision in conditions of economic instability. In particular, a method for assessing competitiveness, taking into account both the strategic positioning and operational effectiveness of entrepreneurial structures and their innovative potential, is proposed; the paper also describes the methodology for providing competitiveness and the algorithm for its managing. The findings allow developing specific recommendations for ensuring competitiveness and identifying the reserves for its improvement.

Introduction

In the market economy conditions the issues of business structures efficiency and performance become more important. Competitiveness as an economic category is inseparably linked with the process of ensuring high performance results. Competitiveness of business structures is a relative indicator that characterizes the existence of differences between goods, works and services of various business structures, as well as between business structures themselves.

Despite a rather large number of studies in the field of competitiveness in general and the competitiveness of business structures in particular, the “competitiveness” concept definition lacks the unity of views. In this connection, it is necessary to pay attention to approaches to “competitiveness” concept definition, as well as to disclose the “concept” category content.

There is a large number of the “concept” idea interpretations in the literature. Most authors define this category as a way of interpreting, understanding; a system of views or a leading idea. In this paper, the concept is understood as a system of views, laws, principles, approaches, judgments; a leading idea, a certain way of understanding the essence of an idea, category, phenomenon, etc. [1, p.74]

The lack of uniformity in determining the “competitiveness” idea is inseparably linked with the economic content of this category. The study of competitiveness and its content is

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reflected in the writings of such authors as M. I. Gelvanovsky [2, p.14], V. E. Khrutsky, I. V. Korneeva [3], M. Porter [4], D. S. Voronov [5], P. S. Zavyalov [6, p.8], N. I. Komkov, A. V. Lazarev [7, p.4], M. Meskon, A. Albert, F. Khedouri [8], A. N. Asaul, Sh. M. Mamedov, E. I. Rybnov, N. V. Chepachenko [9, p.23] and others.

Summarizing the definitions given in the above-mentioned works and taking into account the signs of competitiveness emphasized by the authors, in this article the competitiveness of entrepreneurial structures is understood to mean the economic category characterizing the actual and potential superiority of the business structure in matters of functioning in a dynamic competitive environment, attracting consumers and meeting their needs, ability to produce and sell a competitive product (constantly increasing its quality), intensifying competitive advantages and expanding the market share achieved without compromising the financial state [10, p.303].

Methodology and theory

Conducting analytical procedures for the competitiveness factors of the business structure is necessary in order to identify any opportunities and reserves for ensuring competitiveness. The analysis of competitiveness factors influences the further competitive strategy evolution that will be aimed at maintaining and developing new and existing competitive advantages. Evaluation of an entrepreneurial structure ability to compete successfully is carried out by comparing the analyzed factors of the studied business structure with the criteria or factors of other business structures competitiveness.

The globalization and integration processes inherent in a market economy, as well as an increase in the degree of the Russian economy openness, strengthen the influence of generally accepted standards in the world on Russian business structures. Modern management conditions in the construction sector are characterized by an increase in prices for building materials, energy, transport, etc., and inadequate supply of resources to customers of construction products. These circumstances directly affect the choice of strategy and tactics of the construction sector business structures. The process of ensuring competitiveness is a set of actions aimed at establishing, forming, maintaining and preventing a decline in a given level of competitiveness at all stages of the competitiveness subject functioning.

In addition to factors affecting the competitiveness of business structures and areas of competitiveness, an important component in the providing system is an objective instrumentarium for assessing the business structures competitiveness level. The number of indicators and parameters involved in ensuring the entrepreneurial structures competitiveness is quite large and, therefore, it is extremely difficult to take them all into account when making an appraisal. Given this, it is proposed to use in the methodology for assessing the entrepreneurial structures competitiveness only certain indicators that are classified as the most important ones that will act as indicators of the business structure competitiveness level.

As it is shown in [11], the most simple and, at the same time, sufficiently detailed method of assessing the entrepreneurial structures competitiveness is the dynamic method. This method is an effective assessment tool, based on the need to determine the coefficients of operational efficiency and strategic positioning [12, p.205]. Compiling a list of indicators that makes it possible to determine the business structures competitiveness level requires a number of adjustments to the dynamic method of assessing competitiveness. This circumstance is caused by the fact that in modern managing conditions it is necessary for business structures to have more and more perfect tools for assessing and ensuring competitiveness [11].

A well-known concept of the Balanced Scorecard (BSC), proposed by R. Kaplan and D. Norton in the late 80s of the 20th century, is a good basis for constructing an objective system of entrepreneurial structures competitiveness indicators. This system is an instrument of

strategic and operational management, the purpose of which is to build the relationship between the business structure strategic objectives, business processes and staff activities at all levels of government, as well as to monitor the implementation of the business structure strategy [13, p.361].

The relationship between the profit margin and sales with the projections of the BSC “Finance”, “Internal business processes” and “Clients and the external environment” is detailed in [11]. As stated in [ibid.], the business structure innovative potential is the indicator of the fourth BSC projection “Personnel, innovation and development”.

In this regard, we propose an approach that, along with the factors considered in the dynamic method, takes into account the entrepreneurial structures innovative potential. The following indicators are proposed as indicators of innovative potential:

- The intellectual property security coefficient, defined as the share of intangible assets in the total amount of non-current assets; it characterizes the presence of intellectual property in the business structure and rights to it, in the form of trademarks, licenses, certificates, patents that determine effective innovative development. This indicator can be formalized as follows [14, p.12]:

$$K_{IC} = \frac{IC}{FA}, \quad (1)$$

where:

K_{IC} – intellectual property security coefficient;

IC – intellectual property;

FA – business structure non-current assets total amount.

The formula for calculating the intellectual property security coefficient reflects the degree of equipping the entrepreneurial structure with intellectual capital, in comparison with other basic means of production. As shown in [ibid.], the intellectual property security coefficient may have the following standard values:

Low level of innovative activity – the coefficient value is $K_{IC} \leq 0.05$;

Average level of innovation activity – the coefficient value is $0.05 < K_{IC} \leq 0.10$;

High level of innovative activity – the coefficient value is $0.10 < K_{IC} \leq 0.15$.

- The innovative growth coefficient, defined as the share of costs for innovation activity in the total amount of entrepreneurial structure costs. This indicator can be formalized as follows [ibid.]:

$$K_{IG} = \frac{C_I}{TC}, \quad (2)$$

where:

K_{IG} – innovative growth coefficient;

C_I – costs for innovation activity;

TC – entrepreneurial structure costs total amount.

Standard values of this coefficient in relation to the business structure innovative activity level are as follows:

Low level of innovative activity – the coefficient value is $0.35 \leq K_{IG} \leq 0.40$;

Average level of innovation activity – the coefficient value is $0.40 < K_{IG} \leq 0.55$;

High level of innovative activity – the coefficient value is $0.55 < K_{IG} \leq 0.60$ [ibid.].

- The innovative products share index, defined as the specific weight of the innovative products volume in the business structure sales. This indicator can be formalized as follows [15, p.56]:

$$K_{IP} = \frac{IP}{Q}, \quad (3)$$

where:

K_{IP} – innovative products share index;

IP – innovative products volume;

Q – business structure sales.

Data on the standard values of this indicator vary greatly in the economic literature. In [ibid.] it is noted that the standard value of the innovative products share should exceed the 50% mark. But in [16] it is indicated that the innovative products share in the business structure sales should exceed 30%. In [17] it is stated that the threshold value of this indicator should be at the level of not less than 15%, but it is a matter of the innovative products share on a regional scale. There is no unity of views in determining the threshold value of this indicator in the economic literature. It is necessary to recognize that the amount of innovation costs in the business structure total expenditure, as a rule, needs to be adjusted upwards, as only the introduction of the newest technologies creates conditions for increasing the business structures efficiency. Perspectives of state investment policy in Russia is discussed in [18]. According to the 2016 results, the entrepreneurial structures innovative activity overall level was 8.4% that is 0.9 p.p. lower than in 2015. The values of this indicator have a negative trend for the period from 2012 to 2016. This trend continues in the field of technological innovation, in 2016, 7.3% were engaged in technological innovations. [19, C.6].

Since 2015 the federal statistical observation according to Form No. 4-innovation covers construction organizations. In 2016 financing of technological innovations in construction was carried out entirely at the expense of the entrepreneurial structures own funds [ibid., p.10]. The structure of costs for technological innovation by types of activity in construction differs from similar ones in industrial production, services, and agriculture by the number of expenditure types. There are only two types in the construction organizations, the main of which is the purchase of machinery and equipment (91.3% of all expenses) [ibid., p.13]. Questions of financing of construction with leasing instruments using is discussed in detail in [20] and special aspects of financing technology entrepreneurship is discussed in [21].

According to the data [19, C.13], in 2016 only 2.2% of construction organizations carried out innovative activities, while the share of construction organizations that carried out technological innovation in 2016 was 1.6% [ibid, p.34]. The volume of shipped innovative goods, works and services of innovative-active construction organizations in 2016 was 0.9 mln rubles (in 2015 – 544.5 mln rubles), with the total volume of goods in 2016 – 3159.9 mln rubles (in 2015 – 3599.4 mln rubles) [ibid., p.39].

The above statistics point to a negative trend in the entrepreneurial structures innovative potential, in particular – construction organizations, and make it necessary to take into account the innovative potential in assessing the business structures competitiveness.

Results

The developed system of indicators allows us to visualize the algorithm for assessing competitiveness. The methodology for calculating operational performance indicators and strategic positioning is discussed in detail in [5], a block diagram of the definition of these integral factors is presented in [22, p.43].

The above coefficients characterizing the business structure innovative potential reflect the growth potential, taking into account the prospects of its innovative development and the share of intangible assets in the business structure general assets that actually represent the level and potential for growth of intellectual capital.

Thus, it is proposed to modify the dynamic method of assessing the entrepreneurial structures competitiveness in terms of accounting the innovation potential integral index. The formula for calculating the innovation potential integral index is as follows:

$$N = \frac{0,7 \times K_{IC} + 0,5 \times K_{IG} + 0,5 \times K_{IP}}{0,7 + 0,5 + 0,5} \quad (4)$$

Normalizing the denominator of expression (4), we obtain:

$$N = 0,42 \times K_{IC} + 0,29 \times K_{IG} + 0,29 \times K_{IP} \quad (5)$$

In other words, the entrepreneurial structures competitiveness assessment, using a modified dynamic method, is based on the definition of such integrated factors as: strategic positioning, operational efficiency, innovative potential.

The modified dynamic method should be considered as the base when assessing the entrepreneurial structures competitiveness. This is due to the fact that it is oriented both to the business structure current state and today's level of competitiveness, and to calculation the level of its competitiveness in the future that is separated by a certain time lag from the present, owing to the added indicators [23]. In other words, the added indicators allow us to assess the prospects for the entrepreneurial structures competitive development, including the construction sector. For a visual representation of the modified dynamic method for assessing competitiveness, we will present an algorithm for estimating the entrepreneurial structures innovation potential integral factor in the form of a block diagram. A block diagram of the entrepreneurial structures (ES) innovation potential integral factor evaluation is presented in Fig. 1 [ibid.].

Fig. 1. A block diagram of the entrepreneurial structures (ES) innovation potential integral factor evaluation

The following notations are used in Fig. 1: K_{IC} – Intellectual property security coefficient of covered entrepreneurial structure; K_{IC}^S – Intellectual property security coefficient of entrepreneurial structure included in the sample; IC – Intellectual property of entrepreneurial structure; IC^S – Intellectual property of entrepreneurial structure included in the sample; FA – Non-current assets of entrepreneurial structure; FA^S – Non-current assets of entrepreneurial structure included in the sample; K_{IG} – Innovative growth coefficient of entrepreneurial structure; K_{IG}^S – Innovative growth coefficient of entrepreneurial structure included in the sample; C_I – Costs of entrepreneurial structure for innovation activity; C_I^S – Costs of entrepreneurial structure included in the sample for innovation activities; TC – Costs of entrepreneurial structure; TC^S – Costs of entrepreneurial structure included in the sample; K_{IP} – Innovative products share index of entrepreneurial structure; K_{IP}^S – Innovative products share index of entrepreneurial structure included in the sample; IP – Innovative products volume of entrepreneurial structure; IP^S – Innovative products volume of entrepreneurial structure included in the sample; Q – Sales of entrepreneurial structure; Q^S – Sales of entrepreneurial structure included in the sample; N – Innovation potential integral index of entrepreneurial structure; N^S – Innovation potential integral index of entrepreneurial structure included in the sample.

The methodology for ensuring the entrepreneurial structures competitiveness, as well as the degree of internal interaction between its elements, has a strong impact on the competitiveness index. The reaction of the competitiveness management system of an entrepreneurial structure to any changes in the external environment must be immediate, outstripping and suitable to risks and threats of the external entrepreneurial environment; the entrepreneurial structure must be adjusted to increase its dynamism and controllability.

The order of managing the entrepreneurial structures competitiveness is determined by the management algorithm. On the basis of all the above, it seems possible to illustrate the algorithm for managing the entrepreneurial structures competitiveness (Fig. 2). At the same time, the management object is an entrepreneurial structure, while competitiveness is the management subject. The purpose of management: Ensuring the business structure competitiveness.

Fig.2. Algorithm for managing the entrepreneurial structures competitiveness

Discussion

The desire to increase the entrepreneurial activities efficiency and ensure the entrepreneurial structures sustainable development necessitates a detailed analysis of their competitiveness and the development of measures aimed at ensuring competitiveness in conditions of economic instability.

The toolkit for assessing and managing competitiveness presented in this article makes it possible to compare the studied entrepreneurial structure with the actual business structures on the market – competitors, and not with the abstract organization accepted as the standard.

A key role in ensuring the business structures competitiveness belongs to integral factors, such as operational efficiency and strategic positioning that in turn, together with the intellectual property security coefficient, innovation growth coefficient and innovation share, characterizing innovation potential, allow us to determine the level of business structures competitiveness.

The modified dynamic method, on the one hand, is focused on the current state of the business structure and on its current level of competitiveness; and on the other hand, the added coefficients take into account the competitiveness of the business structure in the future that is separated by a specific time period from the present.

Conclusion

The issue of improving the strategy aimed at ensuring the entrepreneurial structures competitiveness, both in economic science and in practical activities, is very multifaceted, requires a systematic approach and concentration, in particular, on improving research methods and assessing competitiveness.

When assessing the entrepreneurial structures competitiveness, innovation potential should be taken into account as a component that allows to take into account future competitive opportunities associated with the level of innovation in the business structure and with the opportunity in the future to compete with entrepreneurial structures that actively implement innovations in their entrepreneurial activities.

The entrepreneurial structures competitiveness management should be in accordance with the methodology proposed in the work, based on the use of accounting for the impact of internal and external factors and the use of feedbacks between management impacts and the results of applying the proposed activities to ensure competitiveness.

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