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COMPETITIVENESS OF THE ENTERPRISE: THE ESSENCE AND METHODS OF EVALUATION

Abstract. *This article is devoted to the analysis of existing scientific approaches to the study of the concept of competitiveness. The features and problems of assessing the competitiveness of the enterprise are indicated. An analysis of the theoretical aspects of the competitiveness of enterprises was carried out; the existing approaches to assessing its competitiveness were investigated. The conceptual, systemic, integrated and functional approaches to assessing the competitiveness of an enterprise are considered. Based on a systematic approach, types of competitiveness are identified. The tasks of forming and developing a strategy to increase competitiveness are identified. The factors of creating a strategy to increase competitiveness and the main provisions of competitiveness as a factor of strategic development are identified. Actual problems related to competitiveness were described, various sets of indicators for assessing the level of enterprise competitiveness are described, a special system of methods for assessing competitiveness is considered. Along with theoretical studies of the essence of competition and competitiveness in the economic literature, the problem of a practical assessment of competitiveness is being discussed. The study of competitors and the conditions of competition is required by the enterprise primarily in order to determine what its advantages and disadvantages are compared to competitors, and to draw conclusions for developing its own successful competitive strategy and maintaining competitive advantages. According to the results of the study, it was found that using an integrated approach to assessing the level of enterprise competitiveness allows you to quickly and more objectively get a picture of the situation of the enterprise. In assessing the relevance of the competitiveness problem at the current stage of management, the authors emphasize the need for widespread use of competitiveness tools, as well as the choice of competitive strategies of an enterprise, while the most important task of managing an enterprise's competitiveness in a market is to ensure that it is possible to achieve the necessary competitive advantages by various means and methods.*

Key words: *analysis, competition, competitiveness, enterprise, methodology, strategy.*

JEL: *G30, D00*

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An. Inst. Cerc. Ec. „Gh. Zane”, t. 28, Iaşi, 2019, p. 33–50

1. Introduction

At the present stage of formation and development of a market economy, the issue of ensuring a high level of competitiveness of enterprises, which is one of the conditions for maintaining the position of enterprises in the domestic and international markets, becomes especially important. The success of an enterprise in a competitive environment is determined by the constant monitoring of market positions, the study of strengths and weaknesses of both its own business activities and competitors, and its ability to adapt to changes in the market situation.

Competitiveness is one of the main economic categories. As a rule, this concept is associated with the advantages of an object, the success of its functioning, and the ability to develop. The research problem is determined, firstly, by the fact that in order to achieve success it is necessary to manage competitiveness. Everyone strives to be competitive, but in reality, enterprises differ significantly in their ability to get ahead of competitors. Secondly, to create a competitiveness management în a market economy, when the possibility of further development to the enterprise directly depend s on the implementation of effective economic activity system, a theoretical justification of the content of the concept of "competitiveness" is necessary, as well as the structure and causal relationships that determine competitiveness.

Today, the most important factors in the competitiveness of enterprises are the high quality of production and management, that is, the ability of an enterprise to design, manufacture, market and maintain competitive products that exceed those of competitors and consumers in preferred demand, quickly update the range of products, search for new market niches, systematic improving the quality of the enterprise throughout the entire production process. Of particular relevance are the problems of developing organizational and economic mechanisms, models and methods for analyzing and assessing the level of competitiveness of enterprises.

Thus, in a market economy, competition is the engine of economic development, which aims to increase competitiveness and create new jobs. In the market each manufacturer is interested in gaining a position as advantageous as possible with respect to the other participants. As a result, a healthy competitive environment is a factor of progress, efficiency and well-being. In order to ensure a stable competitive environment, the regulatory framework prohibits the undertaking of unfair competition activities, abuse of dominant power and the conclusion of agreements between companies which have the effect of diminishing the rivalry between companies.

2. The economic content of the concept of enterprise competitiveness

At the present stage of development of market relations, competition and competition are the main content of the functioning of an economic system based on market mechanisms, key categories in the general scheme of categories of market economy. Thanks to competition in the market, the following is ensured:

the best coordination of manufacturers' production plans with the needs of potential buyers; the most efficient spending of different types of resources; distribution of income (profit) between producers in accordance with their final economic and financial performance. The competition issue has aroused interest since ancient times. Evidence in this regard serves the Code of Justinian, one of the titles whose title is “De monopoliis, et conven tun egotia to rumillicto, velartificioergo laborumnec non balneatorum prohibitis, etpaction ibusillicitis” [Codex Iustinianus, 1892]. However, in the Roman period studies in this sens eare not found. Theoretical provisions of this economic category appeared only in the middle of the XVIIIth century. The main merit in this belongs to the representatives of classical political economy A. Smith, D. Ricardo. According to A. Smith, competition is a set of interconnected attempts by sellers to establish control in the market in the long term. He also identified factors that determine the dominance of states in international trade (land, capital, natural resources and labor).

Therefore, competition is a process of reaction to a new force and a way to achieve a new balance, the essence of which is the competition of competitors for relative advantages Theoretical provisions of this economic category appeared only in the middle of the XVIIIth century. The main merit in this belongs to the representatives of classical political economy A. Smith, D. Ricardo. According to A. Smith, competition is a set of interconnected attempts by sellers to establish control in the market in the long term. He also identified factors that determine the dominance of states in international trade (land, capital, natural resources and labor). Therefore, competition is a process of reaction to a new force and a way to achieve a new balance, the essence of which is the competition of competitors for relative advantages [Smith A., 1992: 476].

This approach was logically developed in the works of D. Ricardo, who introduced the concept of comparative advantages of states in the production of certain groups of goods. Due to the appearance of these approaches, competitiveness for many years has become associated with the ability of business entities and countries to create goods and services with lower cost than others. The classical economists opposed the government's involvement in market affairs, but they were of the opinion that the competitive process would produce efficient results, given the limited regulation of competition [Ricardo D., 1993].

The content of the concept of competition at different stages of development was defined differently, being influenced more or less by economic theories. The interest of the researchers regarding the competition phenomenon dates from the end of the XIXth century with the beginning XXth century with the adoption in the USA of the first acts regulating this subject: Sherman Act, adopted July 2, 1890, Clayton Act, adopted on October 15, 1914 and the Federal Trade Commission Act, adopted in 1914.The theory of competition received significant development thanks to the works of A. Marshall, J. Keynes, J. Schumpeter, P. Sraffa, M. Porter, and others [Marshall A., 1920; Schumpeter J., 1994; Porter M.E., 1998].

Since the twentieth century, influenced by the contradictory processes that took place in the economy, economists have returned to the central idea that the market must be conceived through the prism of pure and perfect competition. The last neoclassic, the English economist A. Marshall, with his model of partial economic balance, puts the beginning of the study of the concrete situations of the competition, introducing and defining for the first time the notion of economies of scale. Thus, it is found that the market is not simply a land of informal meeting of anonymous individuals, who did not possess any power to influence the exchange structures, specific to the market with pure and perfect competition. All insisted on the important exercise of the principle of freedom of competition, as a fundamental condition of a viable market economy. They asserted that only through competition the market mechanism is realized and a state intervention on the correction of certain deviations from the pure competition model could affect the economic processes [Marshall A., 1920: 54] J. Robinson and E.H. Chamberlin studied one of the forms of imperfect competition, monopolistic competition. Their studies concluded that the presence of a higher number of bidders is not unusual for a competitive market balance. They argue that, by differentiating the products, caused by the presence of advertising and economies, the determination of prices, and the oligopolistic coordination allows them to avoid excessive competition and ensures maximum profits [Chamberlin E. H., 1958].

J. Schumpeter in 1950, gives a new vision to the nature of competition. Namely, he considers that competition is the engine of the creative destruction process and consequently of economic progress. The pioneering companies introduce new products and new production methods, thus opening new markets. The dynamism of these companies initially gives them a monopolistic position on the market, while stimulating others to imitate them. These successive innovations and imitations promote economic progress. Viewed from the perspective of competition as a dynamic process, deviations from the perfect competition model, such as product differentiation and lack of transparency on the market, are premised on the "workability" of that process [Schumpeter J., 1994]. Competition theory becomes one of the central concepts of economic orthodoxy, studies on competition being present in the neoclassical L. Walras, A. Cournot, Bertrand, V. Pareto, Edgeworth, A. Marshall. One of the greatest merits of the marginalists is the elaboration of the concept of pure and perfect competition, elaborated by the representative of the mathematical school L. Walras. His model allowed the analysis "in a pure state" of the mechanism of price formation under conditions of free competition. Proponents of another conception, for example Schumpeter, consider that competition is a means to achieve certain objectives: the general good, a better distribution of resources. The emergence of price theory in the nineteenth century determined the development of the structural and static notion of competition: pure and perfect competition [Boulouis J. *et al.*, 2002]. Other authors examine competition as something complex, which, on the one hand, represents the competition (rivalry) between independent economic subjects in order to attract the clientele, which constitutes its subjective side; and on the other hand, it is a mechanism for the realization of the laws of the market economy (supply and demand), competition of capital and effective means of administration, which constitutes the objective side. [Khemani R.S., Shapiro D.M., 1995: 99].

In the second half of the twentieth century, due to the changes taking place in the national and international competition environment, the debates on competition are expanding. In the Republic of Moldova, the system of legal regulation of competition protection originates at the beginning of the 90s of the 20th century through the approval of the Government Decision R.S.S. Moldova no.2 of 04.01.1991. Regarding the urgent measures to the demonopolization of the national economy of Moldova, which declares as one of the main directions of the economy the development of the spirit of competition and the limitation of the monopolistic activity. Subsequently, the Law of the Republic of Moldova was approved on limiting the monopoly activity and developing the competition no. 906 – XII of 29.01.1992, which established the organizational and legal bases of the development of competition, the measures of prevention, limitation and repression of the monopolistic activity and is oriented towards ensuring the conditions for the creation and functioning of the market economy in the Republic of Moldova. Due to the fact that the aforementioned law was more declarative, on June 30, 2000, the Law on the protection of competition no. 1103 was approved, which established a separate body to deal with the protection of competition. Based on the economic content of the concept of competition, many authors define the concept of competitiveness, focusing their attention on its various aspects. It should be noted that a single universally recognized in the scientific community and management practice definition of competitiveness, as well as competition, able to comprehensively reflect its essence as an economic category, currently does not exist. Currently, there are a large number of definitions of the concept of competitiveness, among which:

- competitiveness is the country's ability, within the framework of free and fair market conditions, to produce goods and services that can meet the requirements of the international market [2];
- competitiveness is the ability to produce goods and services that meet the demand in international markets, at the same time, providing citizens with a high standard of living and the possibility of maintaining it in the long term [7];
- competitiveness – supporting the ability of companies, enterprises, regions, countries and supranational regions to maintain, while open to international competition, a relatively high level of income and employment[4];
- competitiveness is an area of economic knowledge that analyzes the facts and policies that shape the country's ability to create and maintain conditions that ensure the creation of additional value by enterprises and a higher level of well-being of the population[15];

– competitiveness of a company is the real and potential ability of a company to design, manufacture and sell under the conditions in which they have to operate, goods that, in terms of “price” and “non-price” characteristics, are more attractive to consumers than competitors;
– competitiveness is a dynamic characteristic, that is, it is not constant over time, due to the constantly changing competitive environment, it is multi-level in nature (micro-, meso- and macro levels, each of which uses its own set of characteristics to determine the competitiveness of entities) [Porter M.E., 1998];
– enterprise competitiveness is a complex concept, which is determined by the system and quality of management, product quality, breadth and depth of the assortment demanded by society or its individual members, stable financial condition, ability to innovate, efficient use of resources, purposeful work with personnel, level of goods distribution and service system company image [Garelli S., 2002];
– competitiveness is a property of an object that characterizes the degree of satisfaction of a specific need in comparison with the best similar objects, that is, the ability to withstand competition in comparison with similar objects in a specific market and others.

In the scientific literature, the concept of “enterprise competitiveness” is considered from three points of view: 1) Definitions of the organization’s competitiveness, characterizing the internal and external activities of the company, without mentioning the product. 2) Definitions based only on the product component of competitiveness. An organization’s competitiveness is its ability to produce a competitive product or service. 3) Definitions combining product and production activities of a subject. The competitiveness of an enterpriseis a relative characteristic that reflects the differences in the development process of a given manufacturer from a competitor's producer, both in terms of the degree to which their goods or services satisfy a specific social need, in terms of production efficiency.

The competitiveness of entrepreneurial structures reflects their ability to be flexible and adaptable to constant changes in the external environment in order to increase, decrease or maintain their market share. Since the competitiveness of an enterprise depends both on its activities and on its external environment, it is necessary to isolate and analyze factors that have a significant impact on it. Thus, the factors of competitiveness of enterprise structures are understood as the phenomena or processes of the production and economic activity of the enterprise and the socio-economic life of society, which cause changes in the absolute and relative magnitude of the costs of production and sales of products, and as a result, a change in the level of competitiveness of the enterprise itself. In general terms, the organization’s competitiveness factors are divided into external, to a small extent, depending on the organization, and internal, almost entirely dependent on the organization’s leadership. External factors are the socio-economic and organizational relations involved in the creation of products that are more attractive in terms of price and non-price. They include: measures of state influence: of an economic nature (tax, financial and credit, investment policy, etc.); administrative nature (development, improvement and implementation of legislative legal protection of consumer interests); main characteristics of the market for the activities of the enterprise; activities of public and non-governmental institutions; the activities of political parties, movements, blocs that form the socio-economic situation in the country. Internal factors are objective criteria that determine the ability of an enterprise to ensure its own competitiveness. These include: the potential of marketing services; scientific and technical potential; production and technological potential; financial and economic potential; personnel potential (structure, professionally qualified staff); the effectiveness of advertising and sales promotion tools; level of logistics and others). Among the internal factors of the organization's competitiveness, the level of organization management quality plays an important role the level of training of managers, the ability to conduct business correctly in a constantly changing market. These factors are considered key in determining the competitiveness of an organization in the market.

At the same time, in accordance with the model of M. Porter, the following groups of factors are taken into account: rivalry among sellers competing in this market; competition from substitute products; the threat of new competitors; positions of suppliers, their economic opportunities; consumer positions, their economic opportunities [Porter M.E., 1998: 54].

According to M. Porter, it is important to distinguish competitiveness due to innate factors and achieved through other sources. All the factors affecting the competitiveness of the enterprise, M. Porter suggests dividing into: the main ones are natural resources, climatic conditions, the country's geographical position, unskilled labor and developed modern information exchange infrastructure, highly qualified personnel, high-tech industries; general is a system of roads, debit capital, personnel with higher education, and specialized is highly specialized personnel, specific infrastructure, databases in certain fields of knowledge, other factors used in one or a limited number of industries; natural and artificially created. The disadvantage of the classification of competitiveness factors proposed by M. Porter is that he identifies only one sign of dividing them into groups (general and specialized), without indicating by which principle the main, developed , natural and artificially created factors.

Each of the factors characterizing competition in the market is estimated by experts on a point scale. Managers and leading specialists of the enterprise can be involved as experts. For example, if a factor does not appear on the market or there are no signs of its manifestation, then the strength of the manifestation of this factor is estimated at 1 point; if the factor is weakly manifested – 2 points; if the factor is clearly manifested – 3 points. To take into account the relative importance of various factors, the specific "weight" of each of them is determined directly during the analysis. Thus obtained assessment of the degree of influence of each of the five forces of competition in the market is a weighted average score:

$$\bar{b} = \frac{1}{m \times n_i} \sum_{i=1}^{m} k_i \sum_{j=1}^{n} b_{ij}$$

Where: b_{ij} – pointscoreofthej-thexpertofthedegreeofmanifestationofthei-thfactor; n – number of experts; k_i– factor of importance of the i-th factor, m– number of factors considered.

Based on the received average score, conclusions are drawn. In addition, at the stage of analysis of competition factors, a forecast is made for the development of competition in the market based on forecast estimates of changes in the action of each of the factors. A forecast estimate of the change in the factor's action corresponds, for example, to the following scores: "+1" - if the factor's effect increases, "0" - remains stable, "–1" - weakens. Based on the received expert assessments of the forecast for the development of each of the factors, a weighted average estimate of the forecast for the development of competition forces in the market is determined:

$$\hat{c} = \frac{1}{m \times n} \sum_{i=1}^{m} k_i \sum_{j=1}^{n} c_{ij}$$

Where:c_{ij} – score of the j-th expert forecast for the development of the i-th factor; n – number of experts; k_i – factor of importance of the i-th factor; m – number of factors considered.

In the case when the weighted average estimate of the forecast falls within the interval (0.25 ÷ 1), a conclusion is made about increasing the level of competition in the market, (–0.25 ÷ 0.25) – the level of competition will remain stable, (–1 ÷ - 0.25) –decrease

In addition to determining the factors of enterprise competitiveness, an assessment of the intensity of competition is necessary. For this, a set of indicators is used that determine the level of competitiveness of a particular product in the market, namely:

- The financial indicators include: cost, rate of return, assessment of the structure of assets, investment attractiveness, return on invested capital and other financial indicators.
- Production indicators include: capital productivity indicators; production capacities, use of equipment, number of employees, quality control systems, productivity.
- Organizational and managerial indicators include: the labor productivity of workers, the proportion of engineering and technical workers and specialists from the total number of employees, the speed of the management response to changes in the external environment, the clear division of responsibilities, and the type of organizational structure of management.

- Marketing indicators include: market share, brand prestige, company reputation, strategies, number of customers, pricing policy and price level, quality of service.
- Technological indicators include: new products, applicable standards, expenses for research and development work.
- Indicators of personnel include: the level of qualification of personnel, as well as the level of training of sales personnel in the technical field.

The proposed indicators can be calculated both for an individual enterprise, and for a strategic group or a set of industrial enterprises that form the industry of industrial production with the derivation of general analytical indicators for the analysis of competition at the micro and macro levels. Thus, the competitiveness of a business entity is a multifaceted economic category, which is the main criterion for assessing the effectiveness of production, work or services, as well as the resulting indicator of the effectiveness of the management system of this business entity.

3. Methodological aspects of assessing the competitiveness of the enterprise

The competitiveness of the enterprise reflects the aggregate results of the work of all its divisions, the state of their material base, the reliability of personnel and financial support, the level of management and the ability of the enterprise to respond to changes in external factors of influence, the ability to adequately and quickly respond to changes in customer behavior, their tastes and preferences. The solution to the problem of increasing competitiveness is inextricably linked with the assessment of the level of competitiveness.

The analysis of economic literature indicates the ambiguity of methodological approaches to the study of competitiveness, which also determine the multiplicity of the methods used to assess it. So, today there are a number of methods for assessing the competitiveness of an enterprise. Among many approaches, two principal ones can be distinguished – quantitative and qualitative.

Quantitative methods for assessing competitiveness, as a rule, are associated with the calculation of indices, primarily integral, designed to assess the state of a number of key indicators that reflect individual aspects of competitiveness, with their subsequent integration into an aggregate indicator. They are based on the use of various coefficients for the analysis of production activities, financial situation, investment efficiency and others, while the indicators are quite diverse. It is proposed to use the following quantitative parameters: economic potential and performance; management level; production and marketing potentials, indicating the ability of the company to produce and sell this or that product in the required quantities at the required time; research potential; financial position. At the same time, a comprehensive assessment method is based on indicators of the effectiveness of the production activities of the enterprise; financial situation; the effectiveness of the organization of marketing and promotion of goods on the market; product competitiveness; business activity. The enterprise competitiveness coefficient is calculated as the sum of the products of the value of a particular criterion by its weighting coefficient.

Qualitative methods are not associated with quantitative calculations, but are based on expert estimates. The most universal and operational method of assessing the competitiveness of an enterprise is a SWOT analysis, which allows you to most fully compare the competitiveness indicators of a market entity with similar indicators of your rivals, to identify and evaluate your own strengths and weaknesses, as well as the strengths and weaknesses of your competitors.

Currently, the following main methods for assessing the competitiveness of enterprises can be distinguished. Based on the fact that the competition of companies in a market economy takes the form of competition of products, and the ability of a company to compete in a particular product market directly depends on the competitiveness of its product, the competitiveness of an enterprise can be assessed using product methods. To determine the competitiveness of products, various marketing and qualim etric methods are used, most of which are based on finding the price-quality ratio of products. The enterprise competitiveness indicator, as a rule, is determined by finding the weighted average value among the competitiveness indicators for each type of product, where sales volumes of the corresponding type of product are used as weights according to the formula:

$$K = \Sigma a_i x k_i$$

Where: K– enterprise competitiveness; a_i – specific weight of i-type product in total sales; k_i – i-product competitiveness.

Moreover, the calculation of the competitiveness indicator for each type of product is carried out by finding the ratio of the parametric and economic indices, which are a combined assessment of the technical (quality) parameters of the product, economic – cost. In turn, the calculation of these indices is carried out by adding the private indices for each evaluated parameter, taking into account the assigned weighting factors. The list of cost and technical parameters, as well as the weight of each of the parameters is established by experts. At the same time, the method of determining the competitiveness of an enterprise based on assessing the competitiveness of products, taking into account the weight of sales in various markets, can be determined by the formula:

$$K = \sum_{i=1}^{n} ai x bi x Kij$$

Where: a_i – the proportion of the i-th product of the enterprise in the volume of all sales for the analyzed period, unit shares; b_i– indicator of the importance of the market in which the goods of the enterprise are sold; K_{ij}– competitiveness of the i-th product in the j-th market.

The above methods take into account one of the most important conditions for achieving enterprise competitiveness - the competitiveness of manufactured products, but assessing the competitiveness of an enterprise through an assessment of the competitiveness of products allows you to get a very limited idea of the disadvantages and advantages in the activities of the enterprise itself. It is important to note the fact that when calculating the competitiveness index, indirect (generalized) indicators or a system of indicators are used, which significantly reduces the value of this method and limits the possibility of its application.

With the complexity of the composition and structure of key competencies, enterprises are faced with the need to assess the competitiveness of the company, taking into account the full range of its functions and long-term goals. In this connection, the Boston Consulting Group (BKG) in the 1960s, as an analysis tool, proposed a matrix model for assessing the competitiveness of economic entities growth – share matrix. This method is based on evaluating the marketing strategy of an enterprise based on building a matrix of competitive strategies. The methodology is based on an analysis of the enterprise's competitiveness based on the life cycle of the enterprise's products and growth indicators of demand and market share compared to the share of a leading competitor.

The essence of the assessment is to analyze the matrix, built on the principle of a coordinate system: horizontally – growth (reduction) in sales; vertical – the relative market share of the enterprise. Moreover, the relative market share is the ratio of the share of the enterprise to the share of the largest competitor in the market of the relevant industry. The most competitive companies are those that occupy a significant share in the fast-growing market. The matrix reflects the financial interactions within the company's portfolio and the financial considerations that should be taken into account, and also explains why priorities in the allocation of resources between individual enterprises of the company may vary. It also provides a good basis for strategies for expanding or abandoning certain activities (products).

The considered method makes it possible to assess the competitiveness of the enterprise under study, establish the features of the development of a competitive situation and develop a preferred behavior strategy. Advantages of the method: if there is reliable information about sales volumes and relative market shares of competitors, the method allows for a high representativeness of the assessment. The disadvantages of the method: it eliminates the analysis of the causes of what is happening and complicates the development of managerial decisions, and also requires reliable marketing information, which entails the need for appropriate research.

Following the Boston Consulting Group, McKinsey & Co in the 1970s developed a strategic analysis matrix, which, unlike the Boston model, which has a dimension of [2 × 2], has a large dimension [3 × 3] and is built in the "attractiveness – competitiveness" axes. At the same time, competitiveness analysis is carried out by constructing a matrix based on the optimization of the ratio of "product competitiveness" and "market share" occupied by the enterprise. A quantitative assessment of attractiveness serves as the basis for assigning them to one of the nine cells of the matrix. Moreover, the area of circles is proportional to the size of the industry, and the numbers in them reflect the share of the enterprise. Favorable zones in the matrix mean that, in this sector, the competitiveness of an enterprise is determined by the competitiveness of its products. Competitiveness in this case is expressed by the specific gravity of the enterprise in this market segment, the possession of information about the market, competitors, end users, the level of organization and technology of production and labor. Adverse – that in the absence of opportunities for the enterprise to increase its level of competitiveness, it should leave this segment of the market. In the risk zone, the enterprise needs to take measures to increase competitiveness or move to a more favorable market segment. Therefore, by analyzing its product portfolio using the McKinsey matrix, a company can evaluate its current competitiveness and determine a strategy for each of the elements of its product portfolio. By increasing the number of factors evaluated, the McKinsey matrix provides a more accurate picture of the attractiveness of market segments and the competitive status of the analyzed enterprise.

Shell model is very similar to the McKinsey matrix, being the development of the idea of strategic business positioning. A feature of the Shell matrix is the assumption that the market is an oligopoly. Therefore, for business units with weak competitive positions, an instant or gradual exit strategy is recommended. The attractiveness of the industry also implies the existence of a long-term development potential for all market participants, and not just for the enterprise in question. The Shell model is a [3 × 3] matrix and built in the axes “Industry Perspectives” – “Competitive Position”. As in the McKinsey model, each of the measurements is determined by finding a multifactor rating indicator. At the same time, the Shell model places even greater emphasis on the quantitative parameters of the business.

Many economists attribute the SWOT analysis method developed by C. Andrews to matrix methods. The classic SWOT analysis involves the determination of strengths and weaknesses, the internal environment of the enterprise, potential threats and favorable opportunities of the external environment. The form of presentation of the results of such an analysis is a tabular (matrix) representation of Strengths and Weaknesses, as well as Opportunities and Threats of the enterprise environment. Identification of the strengths and weaknesses of the enterprise, of course, is close in scope to the analysis of the enterprise’s competitiveness, but the SWOT analysis is more an economic tool for planning the enterprise’s strategy and allows assessing the competitive environment of the enterprise rather than its competitiveness”.

The selection of methods for assessing the competitiveness of enterprises, based on the theory of effective competition (operational methods) as an independent tool for assessing the competitiveness of business entities, occurred as a development of the tools of matrix models of strategic planning. The essence of the approach is to assess the ability of the enterprise to ensure competitiveness. Each of the enterprise’s ability to achieve competitive advantages formulated during a preliminary analysis is evaluated by experts in terms of available resources. At the same time, the composition and structure of the evaluated abilities vary significantly in different methods: from cost and financial stability indicators to the ability of an enterprise to adapt to innovations. In accordance with the operational approach, those enterprises where the work of all departments and services are best organized are the most competitive. The effectiveness of each service is influenced by many factors – the resources of the enterprise. Evaluation of the effectiveness of each of the units involves an assessment of the effectiveness of its use of these resources. The method is based on the assessment of four group indicators of competitiveness. The first group includes indicators characterizing the efficiency of the production process management, the second group includes indicators reflecting the efficiency of working capital management, the third group includes indicators that provide an idea of the effectiveness of sales management and promotion of goods on the market by means of advertising and incentives, and the fourth group includes indicators product competitiveness: product quality and price.

In the future, in order to assess the competitiveness of the enterprise, the resulting expert assessments are subjected to mathematical processing. Typically, the indicator is found by calculating the weighted average of the obtained expert estimates, taking into account the specific gravity that is assigned to each of the evaluated abilities in achieving the competitive advantages of the enterprise. The calculation of the integral indicator of enterprise competitiveness, using the main groups of weighted average indicators of enterprise competitiveness, is carried out according to the formula:

$$K = a \times Epr + b \times Fp + c \times Em + d \times Kp$$

Where: K– enterprise competitiveness coefficient; Epr – the value of the criterion of the effectiveness of production activities of the enterprise; Fp – the value of the criterion of the financial position of the enterprise; Em – the value of the criterion of the effectiveness of marketing and product promotion on the market; K_T – the value of the criterion of product competitiveness; a, b, c, d – criteria weighting factors.

This assessment of the competitiveness of the enterprise covers all the most important indicators of the economic activity of the enterprise, eliminates duplication of individual indicators, and allows you to quickly and objectively get a picture of the position of the enterprise in the industry market. The use of comparison of indicators for different periods of time during the evaluation makes it possible to use this method as an option for the operational control of individual services. However, this formula does not take into account the attitude of consumers of a given product to the quality of goods produced at a given enterprise.

Assessing the competitiveness of an enterprise by complex methods is based on identifying the current and potential competitiveness of an economic entity. The grouping of parameters is based on the analysis of a wide range of problems of a technical, economic and social nature, as a result of which variables that ensure competitiveness are identified. The starting point of the analysis is to determine the list of technical and economic factors of competitiveness. Competitive advantages that determine the market position of an enterprise are grouped into six aspects: product competitiveness; financial condition of the enterprise; marketing effectiveness; return on sales; company image; management effectiveness.

Assessment of the competitiveness of the goods is made by comparing the parameters of the analyzed products with the parameters of the comparison base. In this case, differential, complex and mixed assessment methods can be used. The differential method is based on the use and comparison of individual quality parameters of the analyzed products and the comparison base by constructing for each of them the corresponding parametric index (J_{Gi}):

$$J_{Gi} = G_i / G_i^e$$

Where: $i= 1,....n$; G_i – the value of the i-th consumer parameter of the evaluated goods; G_i^e – value of the i-th consumer parameter of the estimated sample product.

The complex method is used if a set of parameters describing a property is used to characterize the quality of the goods. Then the parametric index is calculated taking into account the specific gravity of the individual components. In general, the overall product quality indicator can be determined using the composite parametric index (I_G^{Ct}), which is calculated by the formula:

$$I_G = I_G^{Ct} \times \sum_{i=1}^{n} A_i \times J_{Gi}$$

Where: A_i – weight coefficient of the i-th quality indicator; J_{Gi} – parametric index i-th quality indicator.

To assess the competitiveness of the enterprise, it is most appropriate to decompose the initial competitiveness indicator into separate activity centers, and then to decompose each of the obtained competitiveness indicators into cost components. In this case, the indicator of enterprise competitiveness (K) can be represented as follows:

$$K = \sum_{l=1}^{k} Y_l \times A_l \times K_I^l \times \sum_{i=1}^{n} k_i y_i$$

Where: Y_l – weight coefficient that determines the influence of each of the separate activity centers on the formation of a general indicator of enterprise competitiveness; A_l – weight coefficient that determines the impact of each activity center on the formation of a general indicator of enterprise competitiveness; K_I^1 – strategic positioning coefficient of the l-th activity center; k_i – relative efficiency of the i-th cost element;γ_i – the weight coefficient of the i-th cost element, which determines the relative weight of the relative effectiveness of each of the cost elements in the overall coefficient of operational efficiency.

The determination of weight coefficients of both individual characteristics as part of complex indicators and for individual quality indicators should be carried out on the basis of expert assessments, which are specified in the process of monitoring consumer behavior.

It should be noted that various weighting coefficients obtained as a result of the above algebraic transformations are of purely mathematical value and are necessary in order to justify the possibility of representing the initial indicator of enterprise competitiveness in the form of a set of private indicators of competitiveness. In other words, for the purposes of economic analysis, there is no need for cumbersome calculations of the corresponding weight coefficients, but it is only necessary to calculate the initial and particular indicators of the enterprise's competitiveness.

The determination of each of the above indicators within the framework of this method is carried out by experts on the basis of various evaluation tables and matrices. The proposed methodology for assessing competitiveness, in contrast to existing methods of this kind, is based on a clearly expressed mathematical apparatus. This gives not an estimated and largely conditional dependence of the indicator on competitiveness factors, but a tough functional relationship. The main advantage of this technique is that the assessment is carried out according to the ultimate criteria of competitiveness – profitability and the company's market share. Using this model for practical purposes reduces the risk of managerial decisions and can serve as the basis for assessing their effectiveness. The proposed methodology is acceptable to justify decisions regarding the management of the current activities of the enterprise, as well as to serve as an argument confirming the feasibility of investment decisions.

Dynamic methods for assessing the competitiveness of an enterprise provide for the analysis of the main indicators of the enterprise's activity in dynamics, since without taking into account changes in time, the value of even the most important indicator does not allow forming an exhaustive idea of the analyzed process. The dynamic approach is based on two principles: the definition of key indicators of the business entity and the application of dynamic analysis in relation to them. This method of assessing competitiveness involves the analysis of the main indicators of the enterprise in dynamics.

The essence of operational efficiency is the implementation of activities similar to competitors in order to ensure profit in the process of realizing surplus value, while the essence of strategic positioning is to create a unique position based on a combination of activities that are different from competitors. By creating, supporting and expanding sales markets, strategic positioning provides the very possibility of the process of realizing surplus value. Highlighting the indicators, which are key indicators of the financial and economic activity of the enterprise, economists certainly agree that these are the profit and revenue of the enterprise. The key indicators are usually considered the profitability of the company (operational efficiency) and the dynamics of the market share (strategic positioning). Then the assessment of the competitiveness of the enterprise can be made according to the following formula:

$$K = K_r \text{ x } K_I$$

Where: K – competitiveness of th estudied enterprise; K_r – operating efficiency ratio; K_I – strategic positioning coefficient.

To assess the operational efficiency of the enterprise, it is necessary to compare the value of the considered indicator of the studied economic entity with the corresponding indicator for the sample:

$$K_r = r / R$$

Where: K_r– operating efficiency ratio.

The higher the K value, the more competitive the sample in question is in relation to the sample. Obviously, $0<K<\infty$. Moreover, if $0 <K <1$, the competitiveness of the enterprise in relation to the sample is low (the closer to zero, the lower the competitiveness). With K = 1, the competitiveness of the enterprise is identical to the competitiveness of the sample. At K> 1, the competitiveness of the enterprise is higher than in the sample.

Thus, this method of assessing the competitiveness of an enterprise covers key characteristics of an enterprise, eliminates duplication of assessment parameters and allows, based on the obtained time series, to conduct factor analysis and predict the level of competitiveness of an economic entity. This method of assessing the competitiveness of enterprises is a simple and universal tool for assessing the effectiveness of economic activity, the application of which is possible both in theoretical studies and in the practice of economic analysis.

It is important to note that none of the considered methods for assessing the competitiveness of an enterprise has found wide application in the practice of economic analysis. On the basis of which it can be concluded that a universal method for an integrated assessment of the level and sources of competitiveness of an enterprise has not yet been developed. In our opinion, this is due to the fact that the methods considered have a number of disadvantages. Summarizing the results of the study of methods and criteria for assessing competitiveness, we can conclude that the common drawback of all the methods analyzed is the presence of subjectivity: not all the parameters that are used in the assessment for each method can be quantified.

4. Conclusions

In conclusion, we can mention that the notion of competition must be regarded as a complex, multilateral category, having the right to life and applicability by the competition protection authorities of both approaches: both behavioral, in the case of examining anti-competitive and structural practices, in the case of examining economic concentrations as a preventive measure.

In the context of the above, we consider that competition represents the economic rivalry, existing or potential, between two or more independent companies in a relevant market, when their actions effectively limit the possibilities of each of them to influence unilaterally the general conditions of circulation of the products on the respective market, stimulates the technical-scientific progress and the increase of the consumer's welfare.

Based on the above analyzed, it can be stated that currently there is no single methodology for a comprehensive quantitative assessment of the competitiveness of an enterprise, the need for which is becoming increasingly important. Each of these groups of methods can be used as an assessment of the competitiveness of enterprises in the engineering industry. However, it should be noted that there are no perfect methods and it is necessary to choose one or the other on the basis of the purposes for which the assessment is carried out.

Quantitative methods make it possible to objectively assess the competitive capabilities of an enterprise, but in most cases they are based on an analysis of factors that determine the competitiveness of business entities, the list of which is purely subjective and exhaustive. At the same time, the system of enterprise competitiveness factors is open, and many elements of this system are fuzzy, which indicates a lack of adequacy of the assessment.

In addition, as a rule, technical and economic indicators of various nature are brought together into a single competitive indicator with the assignment of coefficients that determine their weight value to each of the evaluated factors. At the same time, the influence of various economic factors in a particular economic situation on the competitiveness of an enterprise is different.

Qualitative methods do not differ in particular scientific rigor, but they are sensitive, flexible and, subject to the analysis of sufficiently reliable information, allow us to evaluate facts, not abstract figures. The main disadvantage of this group of methods is significant subjectivity and convention, but in some cases their application is necessary and very productive.

Thus, the competitiveness of an enterprise is its superiority in the selected market segments over its competitors at the given moment assessed by environmental entities, achieved without harming others, determined by the competitiveness of its specific products and the level of competitive potential characterizing the ability to develop, manufacture, and sell in the present and future and to service goods (services) that exceed analogues in terms of price / quality.

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