

# INDICATORS AND INDEXES FOR ASSESSING THE INTER- NATIONAL COMPETITIVE- NESS OF BUSINESS ORGANIZATIONS

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*Abstract: Over the years, the development of economics as a science has led to multiple interpretations of the term competitiveness, depending on the level at which the competition itself is studied - state, regional, company, or of the products themselves, as well as which factors are defined as leading according to individual theories. In this regard, the purpose of this article is to present the types of indicators and indexes for assessing the competitiveness of business organizations and to point out the specifics of each of them.*

*Keywords: Strategic Management, competitive strategies, competitiveness*

The choice of indicators for assessing the company's competitiveness depends on the scale of the study and the nature of the product that the company produces or distributes in a given market. In principle, competitiveness is a comparative characteristic and it matters what an individual company will be compared with.

When the comparison is within the country, where the economic environment and the legal system are the same for all business entities, the role is primarily played by internal company indicators related to:

- personnel management;
- the use of tangible fixed assets (DAM);
- the turnover of working capital;
- the right choice of marketing strategy;
- degree of use of modern equipment and information technologies;
- the relative share of innovation costs, etc.

From the point of view of manifestation and over time, there are different aspects of company competitiveness. Some authors divide it into:

- "operational;
- tactical;

➤ strategic<sup>1</sup>

Restrictions also exist to the current, i.e. according to the latest reporting data and potentially for future periods.

When determining the company's competitiveness, its interrelationship with the competitiveness of the products deserves attention. In the scientific literature, it is mentioned that some authors such as Gelvanovski, for example, even combine the competitiveness of the company and the competitiveness of the product in one category<sup>2</sup>. In the traditional case, a competing good is the product of a competing firm and vice versa, but the concepts are not fully covered due to the possibility that a firm may produce or market more than one good and not all of them are equally well received by consumers.

If we assume that there can be no deviation from the quality (standard parameters) of the obtained assortments, then the competitiveness of the offered service consists primarily in its low price. A company that has lower fixed and variable costs can offer a relatively lower price. Too low a price, however, below a certain level, different for each company, could not provide it with enough funds to invest in its development.

The difference with traditional production is that when a certain product meets too strong competition in one market, it can be directed to another, modified or with marketing methods, a new type of need can be generated.

The high current competitiveness achieved at the expense of the price of the service calls into question the potential competitiveness in a long-term aspect. Decisive for reconciling the current and potential company competitiveness is the investment environment created by the state, as well as the costs of scientific research, training, education, retraining, investment activity in new equipment, production technologies and modern management methods.

There are different ideas regarding the choice of indicators and indexes characterizing company competitiveness:

1. Sales volume for the considered period;
2. Sales volume per worker;
3. Volume of output per worker;
4. Relative market share of the main production;
5. Relative share of export production from the total volume of production;
6. Number of manufactured models and product modifications;
7. Coefficient of competitiveness of the main production;
8. Fund allocation;

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<sup>1</sup> Mazilkina, E., Panichkina, G., Competitiveness Management, Moscow, "Omega-L", 2008, p. 32

<sup>2</sup> Mazilkina, E., Panichkina, G., Competitiveness Management, Moscow, "Omega-L", 2008, p. 34

9. Number of countries in which the production is presented;
10. Total volume of production for the entire time since the establishment of the enterprise;
11. Place of the enterprise in the rating ranking;
12. Ratio of capitalization to realization;
13. Profitability of the enterprise;
14. Costs for the production of a unit of commodity production;
15. Annual growth rate of realization;
16. Ratio of the dividend per share to the market price;
17. Level of complaints for the main production;
18. Relative share of the main productions having a certificate under the quality system;
19. Depletion of the active part of the Fixed Tangible Assets;
20. Relative share of new products in the total volume of sales;
21. Ratio of the wage in the enterprise to the average for the country;
22. Relative share of workers with higher and secondary education;
23. Ratio of sales volume to critical production volume<sup>3</sup>.

The critical volume of production is considered to be the one at which sales revenue manages to cover production costs without making a profit.

In addition to the cited indicators, in the economic literature it is considered useful to use also:

- coefficient of financial stability;
- solvency;
- liquidity;
- business activity.

The wide range of indicators includes economic and financial characteristics, market orientation, product quality, personnel qualification, product innovation. A variety of indicators are available here in different units of measurement, some of which require careful individual analysis before attempting to use them for a summary assessment.

The total volume of production since the establishment of the enterprise is a very used and commented indicator in the literature, because it can receive large values from the too long history of the enterprise, or from large volumes of production produced in the past,

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<sup>3</sup> Tsarev V., Kanturovich A., Chernysh V., Evaluation of competitiveness of enterprises (organizations), Unity-Dana, Moscow, 2008, p. 58

which does not give it significant competitive advantages over relatively new and modern enterprises, in addition to the wide recognition of the trademark. However, it should be borne in mind that such information can be very difficult to extract from the archives of the enterprise if it has been operating for decades.

Calculating the relative share of new products requires clarification - what is meant by a new product - new materials used, new design, new functions, a completely new purpose of the product or a new way of achieving the useful effect.

The calculation of the competitiveness coefficient of the main production would represent a comprehensive independent study with appropriate methodology and information provision.

The ratio of the dividend per share to the market price can only be calculated for enterprises represented on the stock exchange, which excludes the possibility of covering small and medium-sized enterprises that do not have a stock exchange quotation in the analysis.

For the relative share of complaints, enterprises also provide information. It matters whether the defects are removable or non-removable, and for this a special survey is needed, since average indicators cannot be calculated due to the variety of products and the lack of a unified opinion on whether the product subject to complaints should be reported in number of products or in value look.

Some of the indicators such as the rate of wear and tear of fixed assets, profitability, production costs per unit of goods production require detailed information from the balance sheet or the income and expenditure statement, which necessitates the active inclusion of all or at least the main array of leading enterprises in the research, operating in a specific geographic area or producing a uniform product.

According to the method of evaluating the organization's competitiveness, based on the theory of effective competition<sup>4</sup>, the highest competitiveness can be achieved when the work of all departments and services is optimally organized. The method is based on the analysis of four groups of indicators, each of which evaluates a specific direction of the organization's activity:

1. "Indicators characterizing the efficiency of production activity:

- maintenance of production per unit of production in terms of value;
- fund lending in terms of value;
- profitability of the goods;
- labor productivity of one person in value terms.

2. Indicators of the organization's financial situation:

- coefficient of autonomy, characterizing the independence of the organization from the sources of borrowed funds;
- solvency ratio;

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<sup>4</sup> Kunev Kr., Competition: theoretical aspects and company behavior, Svishtov, 2001, p. 148

- liquidity ratio;
- working capital turnover ratio.

3. Performance indicators of the placement organization:

- profitability of sales;
- load factor of production facilities.

4. Indicators of competitiveness of goods:

- Quality of goods;
- Prices of goods”<sup>5</sup>.

As a useful attempt to comprehensively solve the problem of choosing indicators and indexes for company competitiveness, the Methodology for evaluating company competitiveness, by using a system of factor and result indicators and indicators, proposed by T. Nenov<sup>6</sup>, can be considered. The essence of this methodology consists in measuring and evaluating the 10 most important factor and performance indicators characterizing, on the one hand, the level of the company's competitive potential, and on the other hand, the level of the achieved results.

Two groups of indicators have been formed:

I. "Group: Related to management maturity assessment:

1. Management - general company management.

1.1. Leadership - leadership style and leadership behavior.

1.2. Policy and strategy - mission, goal setting, strategy.

1.3. Organizing – organizational structure and organizational technology.

1.4. Implementation and control – plans and program, implementation and control.

2. Innovations and processes (innovation management).

2.1. Research and design.

2.2. New and improved products, technologies, processes, etc.

2.3. Implementation of innovations.

2.4. Investment efficiency and balancing the product life cycle.

3. Marketing (marketing management).

3.1. Product - quality, reputation, recognition, flexibility.

3.2. Price – optimal ratio between price and consumer value.

3.3. Distribution - channels, marketing, logistics.

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<sup>5</sup> Kunev Kr., Competition: theoretical aspects and company behavior, Svishtov, 2001, pp. 148 - 149

<sup>6</sup> Nenov, T., Managing Competitiveness and Growth, Science and Economics, 2008.

3.4. Promotion - advertising, sales promotion.

4. Production and logistics (production management, etc.).

4.1. Access/consumption of raw materials, optimization and inventory.

4.2. Technological processes and product. Execution.

4.3. Capacity and capacity utilization.

4.4. Cost structure and productivity.

5. Personnel (personnel management).

5.1. Selection, training and upgrading of staff qualifications.

5.2. Use the full potential of the staff.

5.3. Staff evaluation and motivation.

5.4. Professional development and increasing social responsibility.

6. Finance (financial management).

6.1. Asset management and research.

6.2. Asset and liability management - liability ratios.

6.3. Management of income, expenses, cash flow.

6.4. Dividend policy and market value of capital.

II group: Results of the organization's activity, which express its efficient and effective functioning:

7. Customer satisfaction and perspective.

7.1. Customer service, forms of contact and convergence.

7.2. Customer satisfaction.

7.3. Incentivize customers.

7.4. Customer loyalty.

8. Employee satisfaction and outlook.

8.1. Salary and labor incentives.

8.2. Social benefits and social protection.

8.3. Professional development and growth.

8.4. Loyalty and empathy in the overall results.

9. Supplier satisfaction and public impact.

9.1. Interaction and partnership with suppliers.

- 9.2. Protecting and not harming the environment.
- 9.3. Protecting the health and safety of employees.
- 9.4. Support of local municipalities and creation of jobs.
- 10. Economic (financial) results.
  - 10.1. Level and dynamics of financial and economic indicators.
  - 10.2. Level and dynamics of the accounting value of the organization.
  - 10.3. Level and dynamics of the organization's market value.
  - 10.4. Level and dynamics of dividends.

For each indicator from both groups, it is intended to give an integer score from 1 (very bad) to 5 (very good). It is envisaged that the final assessment will be determined by self-assessment, expert assessment by specialists from the enterprise or by external assessors. Weights are set for the ten main indicators, the total sum of which is one hundred percent<sup>7</sup>.

The author has indicated the complex nature of the assessment as an advantage of the methodology, as it confirms the modern view of the systemic nature of the interaction between the company's competitive advantages. In addition, the following positive qualities are worth noting:

1. "A well-recognized relative characteristic, such as a firm's competitiveness, can be assessed without the need for information about other competitors. In this case, the basis for comparison is good practices and optimal results in the specific branch in the form of knowledge and experience of the evaluators.
2. The aspects of company management, which is a decisive internal factor for company competitiveness, and the aspects of the results of the company's activity (including the social aspect, relations with consumers, relations with the territory and financial-accounting results) are sufficiently fully covered.

The difficulties that can be expected in the practical application of the system are:

1. Fluctuation in a wide range of expert assessment values caused by the too general wording of the indicators.
2. Seen through the prism of the definition of an indicator and an indicator adopted above, the quantities presented after the ten main indicators can be seen rather as a form of their disaggregation into main components, for which it is necessary to develop a detailed set of specific indicators"<sup>8</sup>.

A very detailed classification of the factors for increasing the competitiveness of the enterprise, the indicators of competitiveness and the methods used in the world practice for evaluating the company's competitiveness was developed by Ml. Velev<sup>9</sup>. The author also offers

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<sup>7</sup> Nenov, T., *Managing Competitiveness and Growth*, Science and Economics, 2008, pp. 58 - 60

<sup>8</sup> Nenov T., *Management of competitiveness and growth*, Science and Economics, 2008, pp. 61 - 62

<sup>9</sup> Velev M., *Assessment and analysis of company competitiveness*, Softtrade, 2004.

his own original methodology as an element of a comprehensive vision for the approach to assessing the competitiveness of enterprises. What distinguishes it is the clear vision of the need for a quantitative characterization of the company's competitiveness, which combines an assessment of the current state and the potential of the enterprise for its future improvement. As the main characteristics by which the competitiveness of an enterprise can be judged, the author defines:

1. "Competitiveness of the offered production.
3. Productivity.
4. Financial results.
5. Growth.
6. Innovation.
7. Production and marketing flexibility.
8. Adaptability to the market"<sup>10</sup>.

A key role is assigned to the productivity of the living and material labor used by the enterprise, determined taking into account the added value received during the considered period of one employed person. The complex nature of this indicator is emphasized, which takes into account the use not only of labor, but of all resources, takes into account the amount of income and profit depending on the competitiveness of production, takes into account the level of costs per unit of production, the structure of costs, the quality of innovations, the level of management, etc.

The discussed system of indicators is designed to assess "current" competitiveness. The thesis that "it can only be calculated in relation to one or several competitors from the same industry"<sup>11</sup> can be further developed. Calculated for an individual enterprise, the evaluation of the selected indicators can be compared with an average value for all enterprises of this branch in the country or for the region, and conclusions can be drawn about the state of competitiveness of the enterprise.

In order to assess the potential of the enterprise to increase its competitiveness in the future, the same author proposes a separate module of indicators, which includes:

1. "Level of technique and technology.
2. Amount of investments (investment plan in the current or next year to improve the production base).
3. Favorable geographical location of the enterprise and its units.
4. Quality of incoming material resources.
5. Cheap access to material resources (cheaper compared to competitors).
6. Availability of long-term contracts of the enterprise with the suppliers of resources, leading to an increase in its competitive status.

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<sup>10</sup> Velev M., Assessment and analysis of company competitiveness, Softtrade, 2004, p. 37

<sup>11</sup> Velev M., Assessment and analysis of company competitiveness, Softtrade, 2004, p. 41



7. Access to financial resources.
8. Level of qualification and experience of personnel.
9. Average annual value of the funds invested in improving the qualifications of the staff.
10. Degree of staff motivation.
11. Qualification and experience of managers.
12. Quality of the company's development strategies and plans.
13. Level of the overall organization of the enterprise's activity.
14. Degree of orientation to user requirements.
15. Experience in marketing activity.
16. Qualitative conduct of marketing research.
17. Quality of marketing strategy (well timed marketing actions).
18. Level of organization of marketing activity.
19. Degree of use of means of marketing stimulation of sales - advertising, public relations, sales promotion, personal selling, etc.
20. Relative share of current costs allocated to marketing.
21. Amount of funds planned for the current or next year to improve marketing activities.
22. Prestige (image) of the enterprise.
23. Trademark image.
24. Degree of User Loyalty.
25. Level of favorable relations with customers (including the presence of long-term contracts carrying preferences for the enterprise).
26. Availability of long-term contracts of the enterprise with commercial intermediaries and distributors, leading to an increase in its competitive status.
27. Relative market share compared to main competitor.
28. Level of the personnel base for innovation - assurance, qualification, experience and motivation.
29. Level of material base for innovation.
30. Organization of innovation activity.
31. Quality of interaction with research organizations and higher schools.

32. Relative share of tangible assets in the total value of the fixed assets of the enterprise.

33. Amount of investments (investment plan in the current or next year) to improve the innovation activity.

34. Relative share of current costs allocated to innovation.

35. Availability of long-term agreements of the enterprise with other companies from the same industry, leading to an increase in its competitive status.”<sup>12</sup>

This set of indicators is very suitable for an independent analysis of the competitive potential of an individual enterprise, as the experts making the assessments will compare the available potential with the maximum possible for an enterprise of this branch according to their knowledge and experience.

Conclusion: From the review of the indicators and indexes for competitiveness of the organizations, it is clearly seen that there is no uniform methodology for its determination. This allows to cover different aspects and points of view and to obtain a complexity of the research and more comprehensive results.

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<sup>12</sup> Velev M., Evaluation and analysis of company competitiveness, Softtrade, 2004, pp. 42 - 43

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