

Review Paper

Management of Efficiency and Competitiveness of Enterprises

Olena Golovchenko^{1*}, Mariia Saiensus², Gennadiy Sorokoumov³, Oleh Onofriichuk⁴, Oksana Zubko⁵ and Lu Liu⁶

¹Department of Economic Theory and Entrepreneurship in Maritime Transport, National University "Odessa Maritime Academy", Odesa, Ukraine

²Department of Tourism and Hotel and Restaurant Business, Odesa National Economics University, Odesa, Ukraine

³Department of Military Training, Sumy State University, Sumy, Ukraine

⁴Department of Economics and Finance, Academician Stepan Demianchuk International University of Economics and Humanities, Rivne, Ukraine

⁵Department of Management and Law, Dnipro State Agrarian and Economic University, Dnipro, Ukraine

⁶Department of Business Economics and Administration, Sumy State Pedagogical University named after A.S. Makarenko, Sumy, Ukraine

*Corresponding author: o.gol@ukr.net (ORCID ID: 0000-0002-4404-5214)

Received: 14-03-2022

Revised: 28-05-2022

Accepted: 03-06-2022

ABSTRACT

In the era of globalization and internationalization of the economy, the only criterion for efficiency and effectiveness of economic entities is competitiveness. Ensuring the competitiveness of economic entities in the international market in a global pandemic has become especially important. Globalization is a defining feature of the world economy, and economies' dependence on foreign markets is growing. Thus, the development of global competition necessitates the development of economic strategies aimed at improving the efficiency and competitiveness of enterprises. The authors proposed organizational and financial principles of ensuring the competitiveness of the enterprise, information, and analytical tools for controlling the efficiency and competitiveness of enterprises, identified and demonstrated the logic of harmonizing business management goals using analytical tools for managing the efficiency of the enterprise and developed methods for integrated assessment of enterprise competitiveness. Techniques of statistical, economic, and financial analysis were used in the study; used research methods: grouping, analysis, synthesis, comparison, etc.

HIGHLIGHTS

- ① Strategic management of supply and competitiveness of the region is inextricably linked with the efficiency and competitiveness of each of its enterprises.
- ① Assessment of the effectiveness of the management of the efficiency and competitiveness of enterprises should be expressed in specific quantitative indicators.

Keywords: Competitiveness, Efficiency, Enterprises, Management

Competitiveness is a universal indicator that can be applied in many areas of life. However, in essence, it remains an economic concept, and the most correct in its application to economic objects. Strategic management of supply and competitiveness of the region is inextricably linked with the efficiency and competitiveness of each of its enterprises (David, 2010; Yan & Duan, 2022).

Enterprise competitiveness management includes an analysis of specific steps and actions entrepreneurs take to make the next breakthrough in the struggle for leadership (Saji, 2019). This primarily applies

How to cite this article: Golovchenko, O., Saiensus, M., Sorokoumov, G., Onofriichuk, O., Zubko, O. and Liu, L. (2022). Management of Efficiency and Competitiveness of Enterprises. *Econ. Aff.*, 67(03): 317-326.

Source of Support: None; **Conflict of Interest:** None



to the constant updating of the range of products, the non-stop development and rapid development of new product samples, and the simultaneous increase in labor productivity, increased production flexibility, efficiency, and reduction of all types of costs and expenses. A special place is occupied by ensuring a stable increase in the quality and reliability of new products while reducing prices for new kinds of products. The course is taken to increase the production, creative output, and activity of the personnel while focusing on the specific reduction in the number of production and managerial workers. This practically means launching as many new, high-demand products as possible, with prices lower than those of competitors and higher quality, performance, and reliability.

The properties of competitiveness include the need to quantify it; without maintaining the level of competitiveness, its increase is subjective. In this regard, the inherent property of multivariate (multifaceted). This category belongs to the evaluative, which implies the presence of the subject of evaluation (who evaluates), the object of evaluation (estimated), and the purpose (criterion) of competitiveness assessment (Katoch & Singh, 2021; Winzar *et al.* 2022). The subject of competitiveness assessment may be public authorities, organizations, investors, buyers, etc. The object of evaluation is the objects and issues of competitiveness. The goals (criteria) of the assessment can be the market situation, the pace of development, the ability to repay loans, and so on. Objects traditionally include products (works, services). In a broader sense, the objects of competitiveness include products, regulations, scientific and methodological documents, design documentation, technology, production, personnel, securities, infrastructure, and information.

The competitiveness of an enterprise is based not only on the competitive advantage it possesses but also on its ability to create and ensure the sustainability of this competitive advantage in the long run (Rambe & Khaola, 2022).

Using the theory of critical competencies in the practice of management allows the creation of stable sources of competitive advantage (Batatineh *et al.* 2022; Hu & Kee, 2022). Identification and development of crucial competencies involve the isolation of the main capabilities of the organization,

followed by the identification of strengths. The search for a sustainable competitive advantage is the basis for strategy development and one of the most important ways to increase the competitiveness of the business entity.

The development of global competition necessitates the development of economic strategies aimed at improving the efficiency and competitiveness of enterprises, so the study aims to study the theoretical, methodological, and applied principles of efficiency and competitiveness of enterprises and develop measures to ensure efficiency and competitiveness of enterprises in conditions of global uncertainty and instability.

METHODS

The theoretical and methodological basis of the study is the provisions of innovation, modern economic concepts of management, informatization, and systems theory. The following methods were used to solve the set tasks: abstract-logical, morphological – to study the evolution of the conceptual-categorical apparatus of innovation; scientific abstraction, generalization, and comparison, classification-analytical – for the characteristic and classification of types of competitiveness as the fundamental phenomenon, components of activation of innovative activity and efficiency of development of the enterprises; economic-statistical, generalizations, systematizations – for development of administrative tools and organizational-economic bases of maintenance of competitiveness of the enterprise; tools of the analysis of Microsoft Excel, modeling, empirical research – for development of a technique of integrated estimation of competitiveness of systems and competitiveness of the enterprise; research, evaluation of results and relevant conclusions.

RESULTS AND DISCUSSION

We present the enterprise's competitiveness in the form of a combination of goals (results) pursued by the enterprise and the means (methods) by which it intends to achieve them (Fig. 1).

Let's take a closer look at the ones that we think are the "weak spots" for most businesses:

(a) Implementation of innovation policy of the enterprise, which determines the ability of the

enterprise to compete in both domestic and foreign markets. The purpose of innovation determines its focus on creating the production of new or absent goods and services. Modern innovation policy is a set of scientific and technical, production, management, financial and other measures to produce and promote new or improved products on the market.

Innovation is not just an innovation; it is a modern technical and economic process, which through the use of new ideas and inventions, leads to the creation of the best products and technologies, which helps the company to take a competitive position in the market (Sadchenko *et al.* 2020; Dooranov *et al.* 2021). The central meaning of innovation is improving products, distribution, and production methods. Innovations are based on qualitatively new ideas and technologies. It is necessary to understand that with the growth of STPs, the needs grow and change, and the consumer puts forward more and more complex requirements to the market of goods and services. The task of innovation policy is to meet these needs. An economic entity needs to anticipate innovation opportunities and comprehensively manage the entire innovation cycle, ensuring its competitiveness and long-term efficiency. Such innovations can be the introduction of augmented reality tools.



Fig. 1: “Wheel” of competitiveness (author’s development)

(b) Availability of qualified labor resources that meet the requirements of the international labor market. The experience of foreign companies shows

the strengthening of the role of human resource management in the system of factors that ensure the enterprise’s competitiveness. According to modern management concepts, people are one of the most important economic resources of the enterprise, affecting its income, competitiveness, and development. Unfortunately, today this factor is the weakest link in the activities of many domestic business structures of all shapes and sizes. Very few domestic business structures, huge ones, care about improving working conditions and motivating their employees. In this regard, we lag behind European countries, Japan and America. Business leaders must first pay attention to the motivation of their employees; appropriate working conditions, recreation, and high wages must be provided because people are the essential factor in the development of any enterprise.

(c) quality management system at the enterprise. Today, when the consumer can choose from a massive number of services offered, one of the most critical determinants of the existence and development of an economic entity in the market is the quality of the services he provides. A strong competitive advantage of the company is that its products (services) meet international quality standards and must have a certificate of conformity of the quality system to the international standard ISO 9001. Compliance with the quality management system according to the international standard ISO 9001 involves a change in organizational structure stages: from the design of services (products) to their sale. The economic operator must certify all production (for example, printing, video, etc.) and make a “quality system certification”.

The authors believe that the use of a quality management system for the company can increase its efficiency and competitiveness and should be based on the following important provisions:

1. Consumer demands satisfaction. The primary purpose of the quality management system is to focus the company’s staff on meeting customer needs. This can be achieved by implementing corporate policy, which will contribute to the entire understanding of the requirements and preferences of consumers. Market demands are considered in the broadest sense, considering all the properties of products and related services to customer satisfaction. Market requirements should

be determined and identified by analyzing orders by the regulations in force at the enterprise. One of such documents may be the Regulations on the end-to-end management system of contracts, finances, and product supply.

2. Documentary support of the quality management system for the enterprise. The list and content of the quality management system documentation are determined by the management of the enterprise, taking into account the provisions of the relevant international standards. The quality management system documentation can be represented by the following documents: quality policy; goals and basic principles of enterprise development; product quality manual; regulations (QMS standards, regulations); records (quality protocols); strategic cards.

3. Carrying out regular internal audits (inspections) of the functioning of the quality management system. Following the ISO 9000 series standards requirements, all business processes in the quality management system must be configured and described to verify them.

(d) Continuous improvement of enterprises operating in the domestic market and expanding their activities in the international market. These include:

- ♦ ensuring product priority;
- ♦ change the quality of services and their parameters to meet the needs and specific needs of the consumer;
- ♦ determining the advantages of an advertising agency compared to competitors;
- ♦ identification of shortcomings of analog services produced by competitors;
- ♦ study the methods of competitors to improve similar services or expand the range by providing new types of ambassadors;
- ♦ identification and use of price factors to increase the competitiveness of services;
- ♦ new priority areas of service use, differentiation of services, which provides relatively stable benefits to consumers who are provided with certain types of interchangeable services;
- ♦ impact directly on the consumer by limiting the appearance on the market of new services,

advertising, the formation of loyalty, and the provision of cash or commodity credit.

The study results made it possible to systematize the organizational and economic aspects of ensuring the efficiency and competitiveness of the enterprise (Fig. 2).

Strategic importance in the presented mechanism is monitoring macro-environmental factors that affect the enterprise's competitiveness. It is established that the subsystem of adaptation of potential to the conditions of the macro-environment is realized using the formation of the information and organizational and administrative infrastructure of the market-oriented activity of the subject (Deineha *et al.* 2022). The organizational and economic aspects of ensuring the entity's competitiveness are based on the determinants of market orientation, including product, price, sales, advertising, communication policy, marketing, and competitive strategy of the enterprise. The macro-environment factors that affect the enterprise's competitiveness include economic, political and legal, scientific and technical, demographic, socio-cultural, and natural factors (including the global pandemic). The resource support of the enterprise's competitiveness is determined by the following components: production, technological, personnel, financial, and innovation.

Building a model of competitiveness based on the implementation of the demand management function allows you to optimize the operation of the enterprise by its capabilities and customer needs and make timely adjustments to the activities, thereby improving the quality of services.

The long-term successful economic activity of the enterprise involves developing and applying a competitive business model that determines the mechanism of creation and distribution of value-added. The existence of a commercial organization consists of a combination of operating (ongoing), investment, and financial activities, which are business.

Any skew in the parameters and relationship between certain activities and dysfunctions in business processes, which occurs when the untimely or inadequate response to changes in the external and internal business environment, is fraught for the advertising agency risks of loss of value and business continuity.

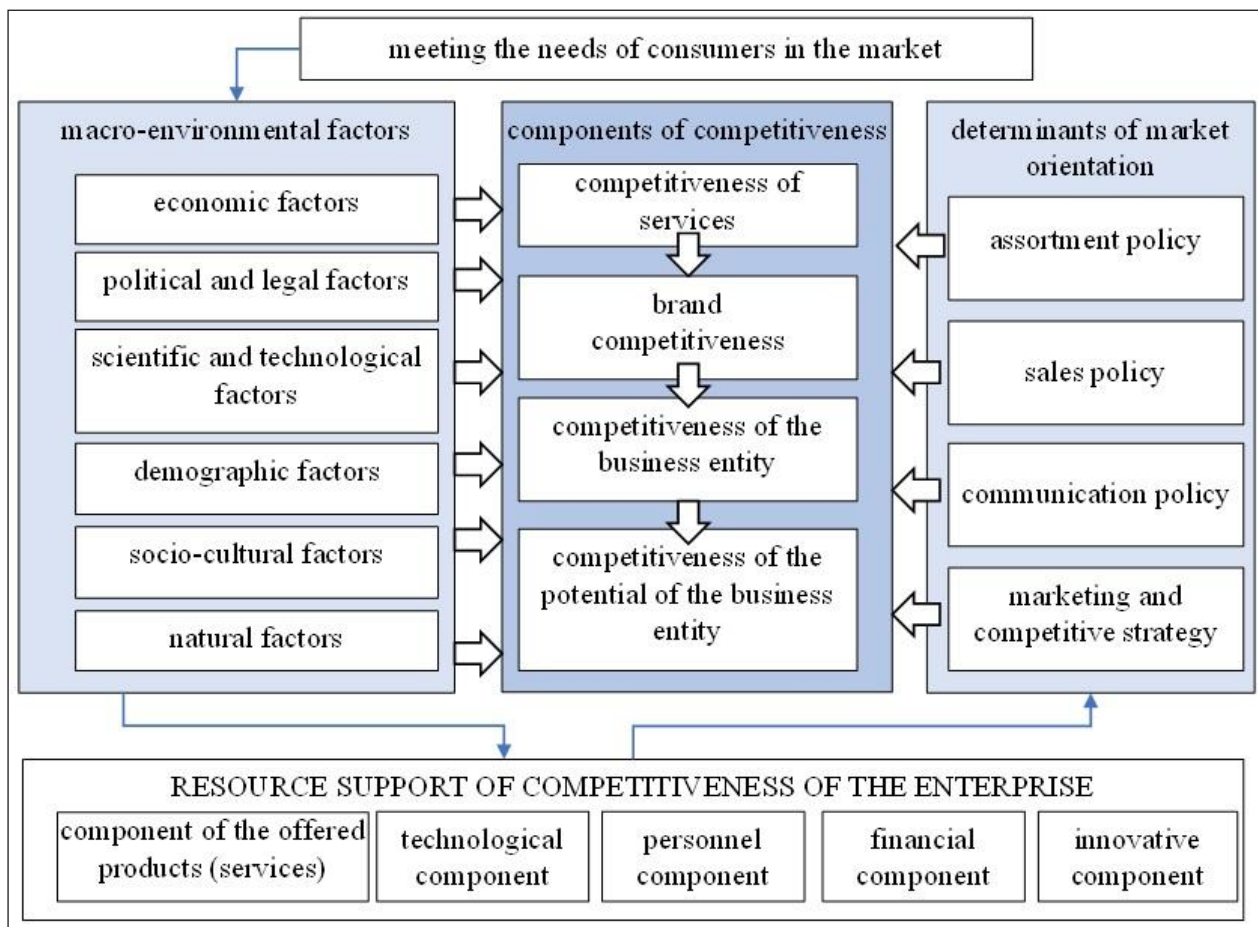


Fig. 2: Organizational and economic principles of ensuring the competitiveness of the enterprise (author's development)

However, in the absence of development of critical competencies, the slow process of replacing services that no longer bring significant income but remain in the advertising agency "as a memory" and complete its development cycle, successful projects, the agency does not enter international markets promptly expands existing market segments, loses its share and reduces efficiency. This threatens to reduce the dynamics of value growth against competitors.

Finding a compromise between current solvency (operational goal) and rising business value (strategic goal) is an important management task. The success of its solution is achieved through creating a controlling system that implements the principle of adapted management, focused on strategic goals. The peculiarity of the approach is to present information at the right time and to respond to changes in the state of the economic environment. Substantiation and clarification of business development priorities, development of a methodology for information, and analytical

support of flexible management based on achieving a compromise of interests between different groups of stakeholders of the agency are the goals of controlling. Its main task is to create a mechanism for monitoring the effectiveness and adaptation of the business model of the agency's competitiveness to the changing conditions of international markets and the global pandemic.

Subjects of controlling - decision-makers (DM). In the conditions of the research base - hired managers and the owner of the agency. Effective business management requires:

- ♦ identification of the interests of the main groups of stakeholders of the agency, possible contradictions between them;
- ♦ verification and adjustment of the system of strategic and operational goals of increasing competitiveness and finding compromise solutions to achieve them;
- ♦ constant monitoring and forecasting of changes in the economic environment;

- ♦ substantiation of key factors of success (KFS) development and successful execution of business operations (provision of services);
- ♦ formation of orderly information-analytical databases, systems of online analytical processing of information (OLAP) for DM, creation of control panels for owners of processes and workplaces, providing the possibility for users to obtain sufficient information to make effective management decisions.

In the conditions of the global post-pandemic and rapid change of technological ways, the business is constantly transformed, which requires the improvement of internal planning, control and risk management mechanisms. The volatility of the economic environment calls into question the practical feasibility of developing strategic development budgets. What seems relevant today may be considered insignificant tomorrow and vice versa. The instability of the business environment is not only a risk factor for efficiency management but also a source of business.

Performance monitoring is process-oriented cost accounting (Activity Based Costing, ABC), estimating the target cost of the service and customers (Target Cost). It uses the technique of process management (Activity-Based Management (ABM)) in solving problems of optimization of value chains (Cain

value). This creates the necessary conditions for eliminating possible contradictions in the system of interests of various business stakeholders, supports the rational navigation of strategic and tactical contours of business management, and strengthens its competitiveness.

The use of efficiency controlling in creating an adapted management system allows:

- ♦ focus on promising customer groups and anticipate the behavior of customer segments;
- ♦ timely identify the necessary essential competencies to create consumer value and achieve the loyalty of target customer groups;
- ♦ effectively convert critical success factors into consumer value based on the principle of the unique identity of the offer to form added market and shareholder value (Fig. 3).

Performance monitoring involves the use of the following information and analytical tools business analysis tools:

- ♦ indicators of crucial success factors of KFS;
- ♦ strategic scorecards (Balanced Scorecard, BSC);
- ♦ control panels for managers and staff involved in business processes (Dashboard);
- ♦ Performance Rankings;
- ♦ sliding forecasts based on the use of deterministic and stochastic.

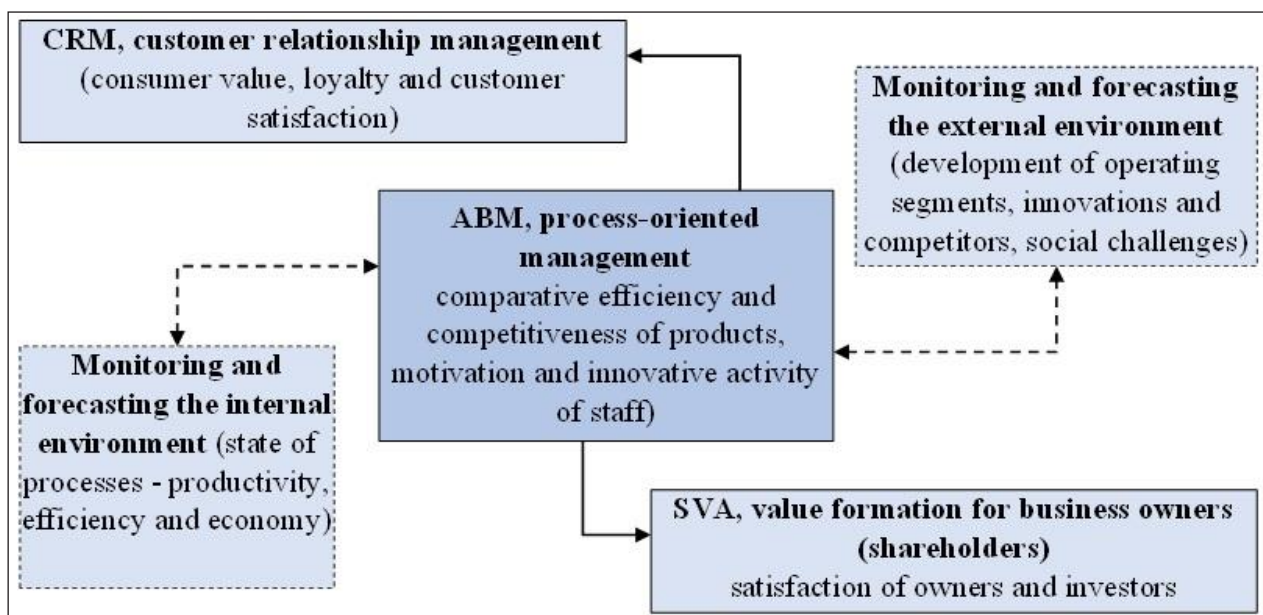


Fig. 3: Model controlling enterprise competitiveness's effectiveness (author's development).


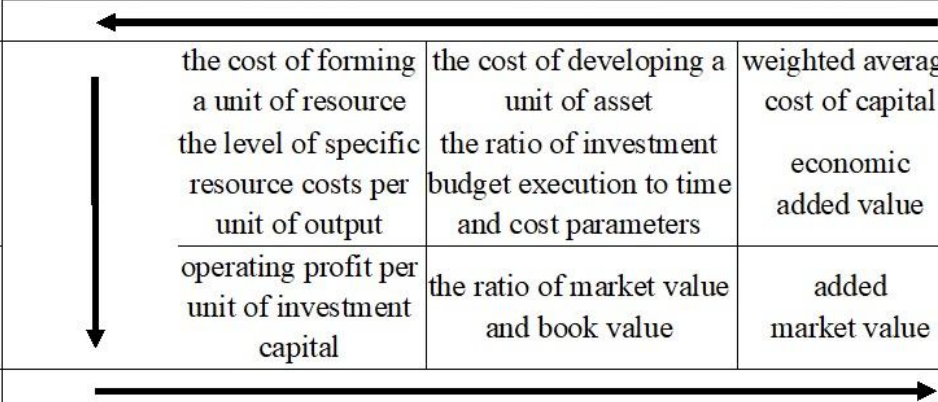
Aspect of efficiency assessment	Type of economic activity			
	creation	operating	investment	financial
economy		the cost of forming a unit of resource	the cost of developing a unit of asset	weighted average cost of capital
productivity		the level of specific resource costs per unit of output	the ratio of investment budget execution to time and cost parameters	
effectiveness		operating profit per unit of investment capital	the ratio of market value and book value	added market value
				

Fig. 4: The logic of harmonization of business management goals using analytical tools for controlling the efficiency of the enterprise (author’s development)

Fig. 4 presents the logic of coordination of business management goals using analytical tools of enterprise efficiency.

Thus, in the conditions of growing uncertainty and rapid changes in the technological structures of management, it is necessary to apply new methods of organizing information and analytical support of management decisions. A special place is occupied by controlling the efficiency of the enterprise. It is a methodology of data and analytical support of management decisions, integrates management accounting methods, strategic analysis, internal control, and risk management, removes possible contradictions of goals, focusing them on the main goal – adherence to the paradigm of adaptive management based on the flexible business model. Introduction of methods of integrated assessment of enterprise competitiveness

Competitiveness assessment is required for:

- ♦ development of measures aimed at improving it;
- ♦ identification of contractors for joint activities;
- ♦ development of programs for the enterprise to enter new markets for it;
- ♦ implementation of investment activities.

To assess the international competitiveness of an advertising agency, we offer a method of integrated evaluation based on the consumer value norm. This method involves evaluating not a product or service but a set of marketing, management, and organizational decisions. The calculation considers

the algorithm for assessing the competitiveness of economic technologies, using the indicator of competitiveness, taking into account the norm of consumer value.

The advantage of this method is that it allows you to accurately identify and assess the real needs of potential consumers and the properties of products and services on the world market. In general, the formula of consumer value is the ratio of the sum of the requirements for the product or the ratio of the sum of the product’s properties to the sum of the needs of these properties of the product.

The norm of consumer value is a dimensionless quantity. The indicator Q (norm of consumer value) ranges from 0 to 1. If Q = 0, it indicates the complete non-competitiveness of products (services). If Q = 1, it demonstrates the total competitiveness of n products (services) in this period. The algorithm for calculating the competitiveness indicator based on the norm of consumer value consists of 13 stages (Fig. 5).

Therefore, the general indicator of competitiveness, taking into account the norm of consumer value, can be as follows:

$$Q = \frac{f(P_E^N * P_T^m * P_{ecol}^h * P_{econ}^x * P_{soc.-psych}^y * P_{leg}^z)}{(N + m + h + x + y + z)}$$

where N, m, h, x, y, z – weights that are set depending on the chosen marketing concept;

The private indicator of competitiveness based

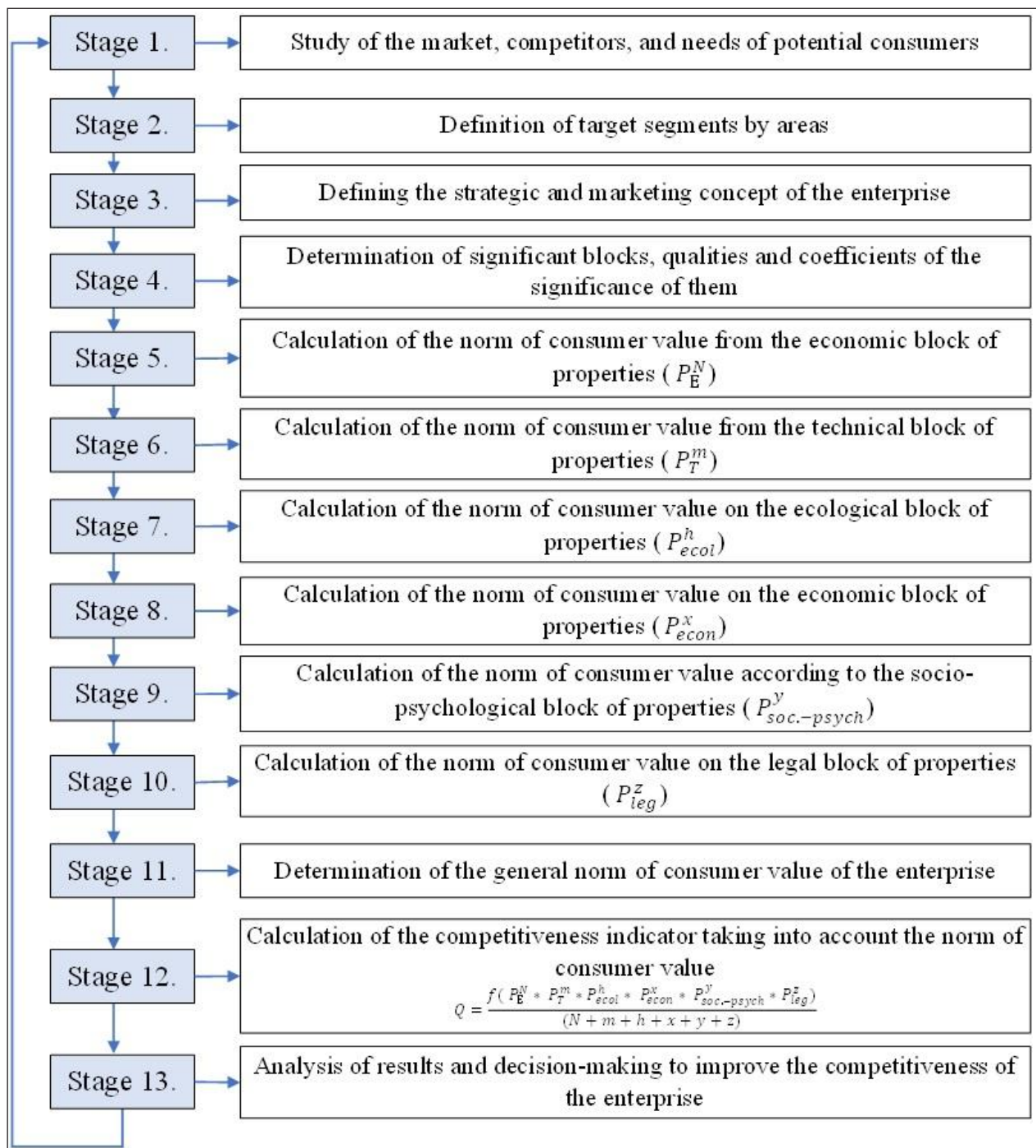


Fig. 5: Algorithm of methods of integrated assessment of enterprise competitiveness (author's development)

on the norm of consumer value on the i^{th} block of significant properties P_i is calculated by dividing the sum of the properties of the product by the sum of the needs for this product:

$$P_i = \frac{\sum_i^n \text{properties}(i)}{\sum_i^n \text{needs}(i)}$$

This value is in the range of 0 to 1.

If $P_i = 0$, it indicates the complete non-competitiveness of this group of homogeneous properties.

If $P_i = 1$, then we can talk about full competitiveness.

The choice of the quantitative assessment method for the enterprise's competitive position is a crucial decision, which, on the one hand, should satisfy the functional completeness and reliability of the assessment and, on the other, reduce the time and

money to determine it. Therefore, the algorithm for assessing the enterprise's competitiveness, as one of the main stages, is the stage of choosing an evaluation method, which consists of disclosing its essence, justification of feasibility, and the possibility of obtaining an assessment with minimal error.

The positive side of this method is that the assessment of the competitiveness of the enterprise is based on the evaluation of a set of marketing, management, and organizational decisions of the firm. This makes it possible to assess potential consumers' real needs and the enterprise's level more accurately.

CONCLUSION

Ensuring the international competitiveness of the enterprise in the form of a combination of goals (results) pursued by the enterprise and the means (methods) by which it intends to achieve them. The "wheel" of international competitiveness includes the following factors: innovative specialization; target markets; marketing; selling; wholesale cooperation channels; workforce; research and development; finance and control; quality of services, and continuous improvement of activities.

The study's results made it possible to propose and present the organizational and economic aspects of ensuring the international competitiveness of the enterprise. Strategic importance in the suggested mechanism is monitoring macro-environmental factors that affect the enterprise's competitiveness. The organizational and economic aspects of ensuring the entity's competitiveness are based on the determinants of market orientation, including product, price, sales, advertising, communication policy, marketing, and competitive strategy of the enterprise. The macro-environment factors that affect the enterprise's competitiveness include economic, political, legal, scientific and technical, demographic, socio-cultural, and natural factors (including the global pandemic). It is determined that the resource support of the enterprise's competitiveness consists of the following components: production, technological, personnel, financial, and innovation.

Given the growing uncertainty due to the long pandemic and the rapid change in the technological structures of enterprise management, it is necessary to apply new methods of organizing information and analytical support for management decisions.

The long-term successful economic activity of the enterprise involves developing and applying a competitive business model that determines the mechanism of creation and distribution of value-added. The existence of a commercial organization consists of a combination of operating (ongoing), investment, and financial activities, which together are business. Any skew in the parameters and relationship between certain activities and dysfunctions in business processes, which occurs when the untimely or inadequate response to changes in the external and internal business environment, is fraught for the advertising agency risks of loss of value and business continuity. Finding a compromise between current solvency (operational goal) and rising business value (strategic goal) is an important management task. The success of its solution is achieved through creating a controlling system that implements the principle of adapted management, focused on strategic goals. The peculiarity of the approach is to present information at the right time and to respond to changes in the state of the economic environment. Substantiation and clarification of business development priorities, development of a methodology for information, and analytical support of flexible management based on achieving a compromise of interests between different groups of stakeholders of the agency are the goals of controlling. Its main task is to create a mechanism for monitoring the effectiveness and adaptation of the business model of the agency's competitiveness to the changing conditions of international markets and the global pandemic.

The logic of coordinating the goals of business management with the use of analytical tools to control of efficiency of competitiveness of the advertising enterprise is presented.

To assess the efficiency and competitiveness of the enterprise, the authors propose a method of integrated evaluation based on the consumer value norm. This method involves evaluating not a product or service but a set of marketing, management, and organizational decisions. The calculation considers the algorithm for assessing the competitiveness of economic technologies, using the indicator of competitiveness, taking into account the norm of consumer value.

REFERENCES

- Bataineh, H., Abbadi, S.S., Alabood, E. and Alkurdi, A. 2022. The effect of intellectual capital on firm performance: the mediating role of family management. *J. Islam. Account. Bus. Res.*, **13**(5): 845-863.
- David, F. 2010. Strategic management concepts and cases. Pearson College Div; 13th edition, pp. 704.
- Deineha, O., Chymosh, K., Kobylynska, T., Nazarov, O., Liapa, M. and Sapotnitska, N. 2022. Adaptive Management of Transport Logistics in Agricultural Enterprises. *J. Agric. Crops*, **8**(1): 20-26.
- Dooranov, A., Orozalieva, A., Parmanasova, A., Katan, V., Horiashchenko, Y. and Nagornyi, Y. 2021. Estimation and stimulation of export potential of the innovatively active enterprise based on economic and mathematical modelling. *Acta Innov.*, **41**: 56-64.
- Hu, M.K. and Kee, D.M.H. 2022. Fostering sustainability: reinventing SME strategy in the new normal *Foresight*, **24**(3-4): 301-318.
- Katoch, S. and Singh, R. 2021. Export Competitiveness of Dry Onion with Reference to India. *Econ. Aff.*, **66**(04): 629-633
- Rambe, P. and Khaola, P. 2022. The impact of innovation on agribusiness competitiveness: the mediating role of technology transfer and productivity. *Eur. J. Innov. Manag.*, **25**(3): 741-773.
- Sadchenko, O., Lagodiienko, V., Novykova, I., Feshchenko, O., Ruzhynska, N. and Bogdanov, O. 2020. Marketing Tools in Stimulating Innovative Activity of Enterprises. *Int. J. Manag.*, **11**(6): 241-251.
- Saji, T.G. 2019. Does Economic Integration Really Improve Trade Competitiveness? The Case of BRICS. *Econ. Aff.*, **64**(3): 469-480
- Winzar, H., Baumann, C., Soboleva, A., Park, S.H. and Pitt, D. 2022. Competitive Productivity (CP) as an emergent phenomenon: Methods for modelling micro, meso, and macro levels. *Int. J. Hosp. Manag.*, **105**: 103252.
- Yan, X. and Duan, G. 2022. The Real-Time Prediction of Product Quality Based on the Equipment Parameters in a Smart Factory. *Processes*, **10**(5): 967.