

The Role of Innovative Aspects of Strategic Management in Ensuring the Enterprises' Competitiveness under the Conditions of Digitalization

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Abstract

In the paper, the main theoretical and methodological aspects of strategic management of the enterprises' competitiveness in the context of innovative development and digitalization are researched. The author's own definition of strategic management of the enterprises' competitiveness in the context of digitalization is proposed. It is proved that accumulation of innovative digital resource is the main task by managing the enterprises' competitiveness. The key aspects by developing strategic decisions are analyzed. The main components of strategic competitiveness management in the context of digitalization are explored. A methodology for the competitiveness assessment based on the study of interaction of strategic positioning indicators, operational efficiency and the level of financial status are proposed. A system of measures on strategic management has been developed, consisting of separate blocks, each of which has its own functional purpose in managing the enterprises' competitiveness in the context of digitalization.

Keywords: Digitalization, Digital Technologies, Digitization, Competitiveness, Strategic Management, Innovation, Enterprise.

Introduction

Digitalization is associated with intensified introduction of information and digital technologies and is the basis of the so-called VI technological mode. In the context of innovation, digital transformation is the leading trend in innovative development of modern enterprises.

Innovative update of production in the context of digitalization is characterized by certain negative features in view of the social and economic component, namely: replacement of personnel with automated systems (unemployment increase); new requirements for personnel qualifications, which causes excessive costs for training and retraining of personnel; growth of cybercrime and loss of state control in communications or circulation of commodity-money, increased rate of new types of crimes, absence of state control (for example, in communications).

Digitalization covers the main spheres of the enterprise's life, including:

production, marketing activities and the financial component, since innovative orientation involves effective management of financial resources and the balanced investment policy of the enterprise. Digitalization of the enterprise management is carried out through information systems and establishment of interaction between them. Digitization is considered by scientists as a low-cost development trend, which is due to the improved management efficiency and rational use of limited resources. The urgency of digitalization for the national economy and public administration is significant, since national security, sustainable development and life quality of citizens depend on the rate of its formation and effective adaptation mechanisms.

The aim of the article is to improve existing theoretical and methodological approaches to strategic management of the enterprises' competitiveness in the context of innovative development and digitalization.

Literature review

Digital technologies are important for economic development, as they contribute to the formation both of competitive advantages and potential of the enterprise and attract great interest of scientists. Articles (Wang, Hongxia et al., 2024; Abdulaziz-Alhumaiddan A. et al., 2024) consider various aspects of technological innovations, which are included in the strategy of enterprises emphasizing information and communication technologies, as well they analyze the impact of the innovative strategy on economic efficiency of the enterprise. Scientists (Yaya R. et al., 2024; Bajwa Tuba Nafees et al., 2024) research innovation-based diversification strategies and study the impact of innovation, entrepreneurial initiatives, and proactive strategies on business performance of small and medium-sized enterprises.

Within the framework of studies (Huang Yamin, 2024; Zhou Chaobo, 2024), strategies for reengineering enterprise management processes are considered, focusing on integration of innovative ecosystems in the artificial intelligence era. The objective of articles (Pekarcikova, Miriam et al., 2021; Vovk O. et al., 2021) is to study the impact of digitalization on competitiveness of industrial

enterprises, by performing economic and mathematical modeling.

Outcomes of the study (Bella Ricardo L. F. et al., 2024; Marhasova V. et al., 2024) is the analysis of development of German enterprises in the context of their sustainable development and digitalization, and the study of mechanisms of state management and promotion of the digitalization development. Supporting results of research (Kowal D. et al., 2024; Broccardo L. et al., 2024), it is recommended to pay attention to the assessment of the digitization level of Polish enterprises within the fourth industrial revolution and the study of peculiarities by carrying out digital technologies at enterprises.

However, military aggression and crisis state of many industries do not reduce the relevance of improving management of the enterprises' competitiveness, and, due to this, innovative projects on implementation of digitalization technologies and scientific research are of particular relevance.

Methodology

Most of the existing approaches to assessing competitiveness are based on methods of quantitative assessment, forecasting the competitiveness level and formation of strategic standards, as well as methods of increasing financial rating of enterprise as one of the priority parameters of evaluation. In this regard, it is expedient to use a dynamic approach, i.e. assessment of factors having in mind their dynamics, which provides for formation of the thorough idea whether management is competitive. Using the dynamic approach involves minimizing the number of assessment parameters, and in this context, the highest priority ones should be allocated, which allow characterizing competitive status of enterprise as much as possible.

Assessment of competitive status of the enterprise is determined by evaluating three components, namely the coefficient of strategic positioning, operational efficiency and financial position.

The above evaluation is carried out by calculating the appropriate competitiveness coefficient as follows:

$$K = K_i * K_r * K_f \quad (1)$$

where K – competitiveness coefficient of the analyzed enterprise;

K_i –coefficient of strategic positioning;

K_r – coefficient of operational efficiency;

K_f – coefficient of financial position.

The market share occupied by the enterprise is defined as ratio of sales revenue of the enterprise's products to the market volume for reporting period:

$$D_a = S_a / V, \quad (2)$$

where D_a – market share of the researched enterprise,

S_a – sales revenue of products;

V – market volume.

Similarly, under the proposed methodology, market share of competing enterprises is calculated (respectively indicators D_s, S_s, V_s).

Considering aspects of digitalization and their positive impact on the intensified sales activities, it is advisable to calculate coefficient of strategic positioning as follows:

$$K_i = I_a / I_s, \quad (3)$$

where I_a – index of changes in revenues of the analyzed enterprise;

I_s – index of changes in competitors' revenue.

The most universal indicator of operational efficiency is the ratio of sales revenue to total expenses:

$$R_a = S_a / E_a, \quad (4)$$

where R_a – operational efficiency of the enterprise;

S_a – sales revenue of the enterprise's products for the reporting period;

E_a – enterprise's expenses for the reporting period.

Accordingly, to assess operational efficiency, it is necessary to find the correlation between indicators of the analyzed enterprise and competing enterprises:

$$K_r = R_a / R_s, \quad (5)$$

where R_a – operational efficiency of the analyzed enterprise;

R_s – operational efficiency of competitors.

Calculation of the financial position ratio is carried out by correlating liquidity level of the enterprise with the

corresponding indicator of the competitor's enterprise:

$$K_f = F_a / F_s, \quad (6)$$

where K_f – coefficient of financial position;

F_a –liquidity level of the enterprise;

F_s –liquidity level of the competitor's enterprise.

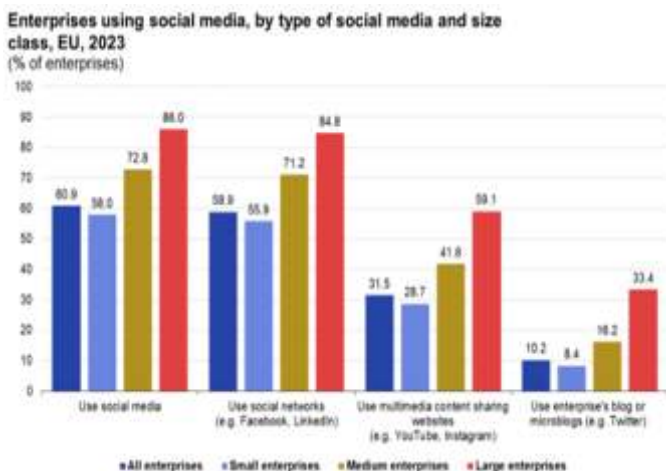
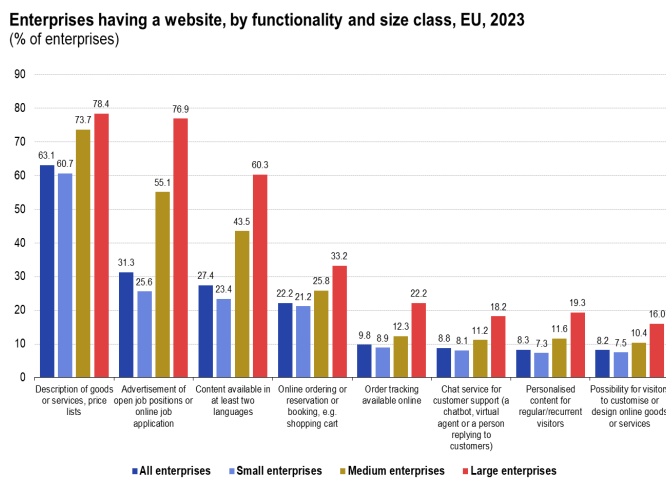
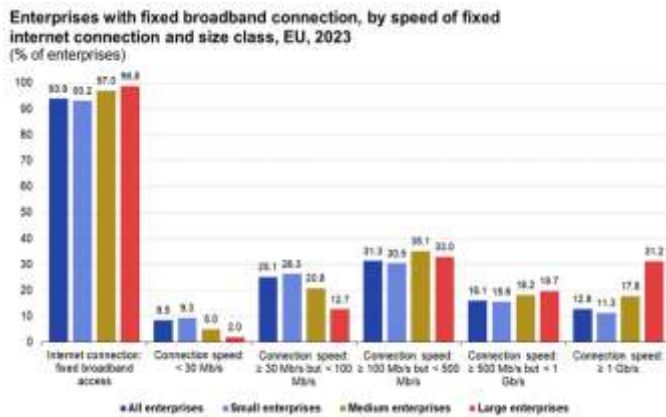
Results

Digitization plays a significant role in shaping strategic priorities of enterprises and increasing their competitiveness in domestic and international markets. Digital technologies have become an integral part of the functioning of enterprises, contributing to the efficiency of business, rational organization of production processes, marketing and logistics systems, communication between divisions, etc. Current trends by implementing digital technologies at enterprises of the European Union are suggested to be considered. In Figure 1, statistical information on access of EU enterprises to the Internet is presented, which was 93.9% as of 2023. It was studied that in 2023, 78.1% of enterprises in the EU had a website. It should also be noted that in 2023, 60.9% of EU enterprises used social media, including: social networks (58.9%), exchange of multimedia content (31.5%), corporate blogs (10.2%).

Strategic management involves development and implementation of solutions, the purpose of which is complete and effective use of existing potential directed to fulfillment of tasks during long-term development. This type of management is flexible in difficult market conditions and allows satisfying needs of consumers in the long term.

Strategic management of the enterprises' competitiveness within digitalization, in our opinion, should be considered as a set of strategic management decisions, which implementation contributes to achieving goals and objectives of competitive development of enterprises based on innovation and digitalization, forms the main strategic directions to improve market behavior, determines the range of products and potential market share, as well as economic features of the business model of the enterprise.

Figure 1. Modern trends of digitization of enterprises in the European Union



Source: Eurostat (2024).

Studying strategic management of the enterprises' competitiveness within digitalization, it is appropriate to focus on marketing and resource factors. In this context, innovative aspects of management distinguish innovation as resource of innovation, which is reflected by forming tangible and intangible assets of the enterprise, and using it, mutual benefits between the producer and the consumer of products can be obtained. Accordingly, accumulation of innovative digital resource is considered as the main task of management of the enterprises' competitiveness. By developing strategic decisions, the following key aspects should be mentioned:

- focus on manufacture of products produced based on existing and acquired knowledge, as well as on external innovations;
- focus on national and transnational markets highlighting new needs and demands of consumers;
- focus on making non-standard decisions directed to increase of the competitiveness level;
- combination of strategic forecasts to increase competitiveness using short-term -scenarios that can consider external fluctuations, instability and threats to the external environment;
- focus on formation of intellectual capital and knowledge component of the competitiveness management.

It is expedient to determine competitiveness as a measure of efficient economic activity of the enterprise, which is formed through interaction of strategic positioning, operational efficiency and financial position.

Strategic positioning makes provides for income generation for the enterprise due to its market position. As an indicator of strategic positioning, it is advisable to use indicators reflecting the level of production potential of the enterprise. However, since this indicator is complex and difficult to calculate, and some assets may be formed based on outsourcing contracts and not reflected in the company's balance sheet, productivity of using production potential does not always coincide with their value. In this regard, assessment of strategic positioning should be based on the achieved potential, not on potential opportunities.

Therefore, since market positioning is aimed at supporting and expanding markets of the enterprise, it is proposed to use as a parameter a market share occupied by the enterprise.

Operational efficiency allows transforming part of the enterprise's income into profit. The main indicator of profit, including investment and financial costs, especially within implementation of projects on digitalization of production and business processes, is net profit of the enterprise, which level is a key indicator of operational efficiency of the enterprise.

Financial position of the enterprise guarantees continuous economic activity of the enterprise and, in particular, innovation and investment process, in the face of negative external influences and threats. The most accurate

interpretation of this indicator is as the ratio of current assets to short-term liabilities, i.e. as an indicator of current liquidity.

Taking into consideration the above, it is offered to take market share, net profit level and liquidity degree as key indicators of sources of the enterprises' competitiveness. Using them, competitive status of the enterprise can be assessed, including innovation activity and implementation of digitalization projects. Therefore, it is recommended to calculate according to the formulas specified in the methodology section.

To analyze the final coefficient of competitiveness, it is proposed to carry out a gradation of competitive position (Table 1).

Table 1 – Gradation of levels of the enterprises' competitiveness

<i>Value Interval</i>	<i>Level of competitive position</i>
< 0.5	Very Low
0.5-0.8	Low
0.8 - 1	Moderately low
1-1.2	Moderately high
1.2 -1.5	High
>1.5	Very high

Development of the proposed methodology was carried out on the example of the Chernihiv brewery "AB InBev Efes Ukraine", which is one of the leaders in the beer and

beverage industry of Ukraine, in comparison with its main competitors. The results of calculations are presented in Table 2.

**Table 2 – Competitiveness indicators of the enterprise
“Chernihiv Brewery “AB InBev Efes Ukraine”**

<i>Year</i>	<i>Ia</i>	<i>Ra</i>	<i>Ago</i>	<i>Is</i>	<i>Rs</i>	<i>Fs</i>	<i>Va</i>	<i>Vs</i>	<i>To</i>	<i>Kr</i>	<i>Kf</i>	<i>K</i>
2020	1.053	1.254	1.023	1.03	1.149	0.964	1.352	1.141	1.023	1.092	1.061	1.185
2021	1.085	1.088	0.934	1.103	1.189	0.819	1.103	1.074	0.984	0.915	1.14	1.026
2023	1.017	1.146	0.977	1.052	1.028	0.975	1.138	1.054	0.966	1.115	1.002	1.08

Source: calculated according to the company's reporting(the company did not work in 2022).

According to the above calculations, the competitiveness level of the researched enterprise can be characterized as satisfactory at the end of 2023. By decomposing the competitiveness indicator allows concluding that the main competitive advantage of the researched enterprise is profitability of economic activity, since operational

efficiency and coefficient of operational efficiency have the highest values of indicators in comparison with others. On the other hand, the calculated integral efficiency indicator of the resource use has high values both for the studied enterprise (1.138) and for competitors, which indicates the intensified competition in the market.

Thus, implementation of the proposed methodical approach should be based on complex interaction of financial, marketing, technological and other measures. In this context, a system of strategic management measures is proposed, consisting of separate blocks, each of which has its own functional purpose in managing the enterprises' competitiveness within digitalization. This direction should be considered by carrying out the systemic approach. A mechanism consisting of system-forming components is proposed. The specified components provide a solution to objectives of innovative development as a component of the competitiveness management based on taken action accordance with endogenous changes. Let's consider each element of the mechanism in detail (Fig. 2).

Block 1. Formation of the competitive strategy for managing competitiveness based on digitalization, which provides for determining guidelines for further development, contributes to the increased level of adaptability and dynamism of mechanism of the enterprise management to requirements of the external environment.

Block 2. Application of the integrated approach to strategic management of the enterprise competitiveness ensures integration of all management units and components of the external and internal policy of the enterprise. The purpose of the approach is to optimize structural transformations, transform the management system, and identify centers of strategic responsibility.

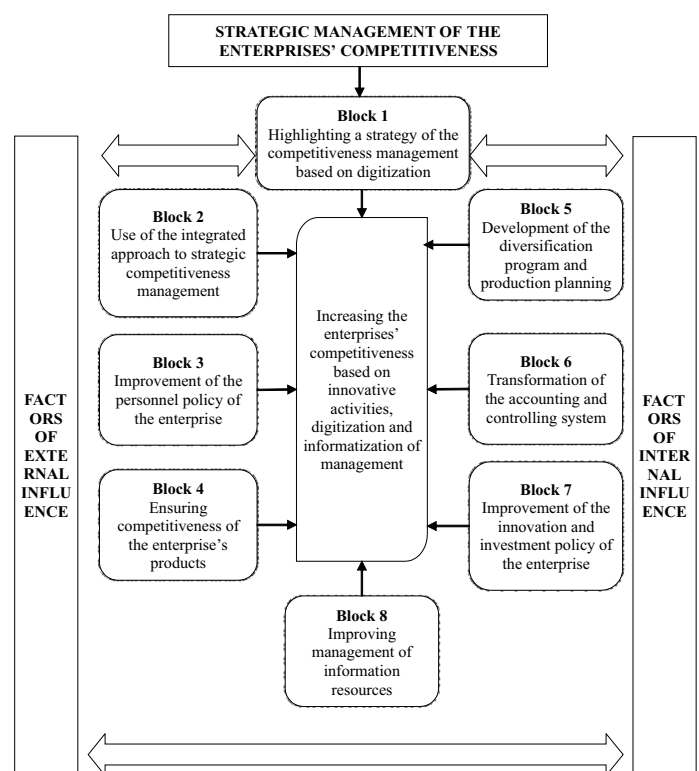
Block 3. Improvement of the personnel policy of the enterprise. Competitiveness management is based on intellectual capital, interest of employees in intensifying innovative activities. In this regard, the system of personnel training, introduction of modern motivation tools, formation of responsibility to ensure the enterprises' competitiveness should be improved, and labor productivity has to be increased.

Block 4. Ensuring the products' competitiveness. It involves formation of the product quality management system, improvement of standardization and certification processes, and development of the effective pricing policy.

Block 5. Development of the diversification and production planning program, which provides for products

modernization and updating their assortment, introducing measures to reduce the cost of production and the use of the resource potential of the enterprise, improving approaches to business planning and analytical work.

Figure 2. Mechanism of the strategic management system of the enterprises' competitiveness within digitalization



Source: developed by the authors

Block 6. Transformation of the accounting and controlling system. Using modern methods and methodological approaches, as well as modern information technologies by carrying out accounting and controlling functions, makes it possible to strengthen competitive capabilities of the enterprise.

Block 7. Improvement of the innovation and investment policy of the enterprise. Effective implementation of this strategy of the enterprise, aimed at attracting financial resources to form and maintain its competitive advantages, will ensure minimization of the capital cost used by the enterprise, increase effective use of own and attracted

financial resources, which will contribute to the increased investment attractiveness of the enterprise.

Block 8. Improved management of information resources. In this context, it is expedient to combine main components of the competitiveness management system into a single information network and form the information model of enterprise.

The proposed mechanism is targeted and allows to quickly responding to emergence of risk factors by maintaining a high level of correspondence between the potential of enterprise and its place in the market.

Conclusions. Innovative orientation of strategic management of the enterprises' competitiveness within digitalization is gaining relevance and, in the management context, contributes to improvement of existing production and business processes, making risky decisions and ensuring activation of new approaches to obtain competitive advantages. Based on the proposed methodology for assessing the enterprises' competitiveness, it becomes possible to conduct the comparative analysis of competing enterprises and their market position, to assess the needs of the market in competitive products, to decide on the level of customer satisfaction and to develop directions to improve the competitiveness policy. The use of new approaches to assess the level of the enterprises' competitiveness and expanding the range of parameters studied is the advanced means of increasing the reliability level by evaluating competitive status of the enterprise.

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