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## MANAGEMENT OF DIGITAL TRANSFORMATION OF BUSINESS PROCESSES OF ENTERPRISES IN THE CONDITIONS OF GLOBALIZATION AND DEVELOPMENT OF THE DIGITAL ECONOMY

*The study reveals theoretical and applied aspects of managing the digital transformation of business processes of enterprises in the conditions of globalization and development of the digital economy. It is substantiated that digital transformation is not only the process of implementing modern information and communication technologies, but also a comprehensive change in the enterprise management system, which covers business processes, organizational structure, mechanisms for making management decisions, interaction with external stakeholders and the formation of new digital business models. It is established that globalization processes, increased international competition, the development of the platform economy, the use of artificial intelligence technologies, big data, cloud services and the Internet of Things form fundamentally new requirements for the management system of modern enterprises.*

*The key components of the digital transformation of business processes have been identified, including strategic management of digital development, digitalization of operational activities, automation of business processes, integration of digital platforms, corporate data management, digital interaction with customers and partners, development of digital competencies of personnel and ensuring information security. It has been proven that the effectiveness of digital transformation depends on the coordinated development of these components, since their isolated implementation does not ensure the formation of long-term competitive advantages of the enterprise.*

*A methodological approach to assessing the level of digital transformation of business processes has been proposed, which is based on the integrated consideration of indicators of digitalization of management, automation of operational activities, use of digital technologies, development of digital competencies of personnel and the level of digital integration of the enterprise with the external environment. A conceptual model of managing the digital transformation of business processes has been formed, which reflects the relationship between strategic management, digital technologies, organizational changes, data management, digital interaction and a system of continuous improvement of business processes.*

*The practical value of the results obtained lies in the possibility of using the proposed models when developing digital strategies for enterprise development, assessing the level of digital maturity of business processes, improving corporate governance, increasing the efficiency of the use of digital technologies and forming sustainable competitive advantages of enterprises in the digital economy.*

**Keywords:** digital transformation, business processes, management, digital economy, digitalization, globalization, digital technologies, digital platforms, automation, enterprise management.

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**УПРАВЛІННЯ ЦИФРОВОЮ ТРАНСФОРМАЦІЄЮ  
БІЗНЕС-ПРОЦЕСІВ ПІДПРИЄМСТВ В УМОВАХ ГЛОБАЛІЗАЦІЇ  
ТА РОЗВИТКУ ЦИФРОВОЇ ЕКОНОМІКИ**

*У дослідженні розкрито теоретичні та прикладні аспекти управління цифровою трансформацією бізнес-процесів підприємств в умовах глобалізації та розвитку цифрової економіки. Обґрунтовано, що цифрова трансформація є не лише процесом упровадження сучасних інформаційно-комунікаційних технологій, а комплексною зміною системи управління підприємством, яка охоплює бізнес-процеси, організаційну структуру, механізми прийняття управлінських рішень, взаємодію із зовнішніми стейкхолдерами та формування нових цифрових бізнес-моделей. Встановлено, що глобалізаційні процеси, посилення міжнародної конкуренції, розвиток платформної економіки, використання технологій штучного інтелекту, великих даних, хмарних сервісів та Інтернету речей формують принципово нові вимоги до системи менеджменту сучасних підприємств.*

*Визначено ключові складові цифрової трансформації бізнес-процесів, серед яких стратегічне управління цифровим розвитком, цифровізація операційної діяльності, автоматизація бізнес-процесів, інтеграція цифрових платформ, управління корпоративними даними, цифрова взаємодія із клієнтами та партнерами, розвиток цифрових компетентностей персоналу й забезпечення інформаційної безпеки. Доведено, що ефективність цифрової трансформації залежить від узгодженого розвитку зазначених складових, оскільки їх ізольоване впровадження не забезпечує формування довгострокових конкурентних переваг підприємства.*

*Запропоновано методичний підхід до оцінювання рівня цифрової трансформації бізнес-процесів, який базується на інтегрованому врахуванні показників цифровізації управління, автоматизації операційної діяльності, використання цифрових технологій, розвитку цифрових компетентностей персоналу та рівня цифрової інтеграції підприємства із зовнішнім середовищем. Сформовано концептуальну модель управління цифровою трансформацією бізнес-процесів, що відображає взаємозв'язок стратегічного менеджменту, цифрових технологій, організаційних змін, управління даними, цифрової взаємодії та системи безперервного вдосконалення бізнес-процесів.*

*Практична цінність отриманих результатів полягає у можливості використання запропонованих моделей під час розроблення цифрових стратегій розвитку підприємств, оцінювання рівня цифрової зрілості бізнес-процесів, удосконалення корпоративного управління, підвищення ефективності використання цифрових технологій та формування стійких конкурентних переваг підприємств у цифровій економіці.*

**Ключові слова:** цифрова трансформація, бізнес-процеси, менеджмент, цифрова економіка, цифровізація, глобалізація, цифрові технології, цифрові платформи, автоматизація, управління підприємством.

**Problem statement.** The rapid development of the digital economy, the globalization of world markets, increased international competition and the active implementation of digital technologies are significantly changing the conditions for the functioning of modern enterprises. If previously competitive advantages were formed mainly at the expense of production potential, material resources and financial capabilities, today the determining factor for successful development is the ability of enterprises to quickly adapt business processes to the digital environment, integrate modern information technologies and form flexible management systems. Under such conditions, digital transformation ceases to be a separate direction of enterprise

development and acquires the status of a strategic mechanism for ensuring its long-term competitiveness. The formation of the digital economy is accompanied by a significant expansion of the possibilities of using cloud technologies, artificial intelligence, big data, digital platforms, robotization of business processes, the Internet of Things, blockchain technologies and intelligent systems to support management decisions. Their integration into the activities of enterprises ensures increased labor productivity, reduced operating costs, accelerated information processing, optimized resource use, improved quality of interaction with consumers and the formation of new digital models of creating added value. At the same time, digitalization significantly complicates the management system, as it requires simultaneous transformation of the organizational structure, business processes, corporate culture and mechanisms for making management decisions. Digital transformation acquires particular importance in the context of globalization, when enterprises operate in the international economic space, interact with foreign partners, use global digital platforms and work in an environment of high dynamics of market changes. Modern business processes increasingly go beyond the boundaries of a single enterprise, integrating production, logistics, financial, marketing and service functions into single digital networks. In such conditions, management efficiency is determined not only by the level of automation of individual operations, but primarily by the ability to ensure comprehensive digital integration of all business processes of the enterprise.

Along with the positive results of digital transformation, the number of new management challenges is increasing. The rapid update of digital technologies, the need for significant investments in the modernization of information infrastructure, the shortage of highly qualified digital specialists, cyber risks, dependence on digital platforms, the complexity of integrating disparate information systems, and high requirements for the quality of corporate data significantly complicate the processes of managing digital changes. This requires a transition from local automation of individual functions to system management of the digital transformation of the enterprise as a single continuous process. Modern practice shows that digital transformation covers a much wider range of tasks than the implementation of new software products or the automation of individual operations. It involves reviewing the business model of the enterprise, improving organizational management mechanisms, forming digital competencies of personnel, developing data management systems, integrating digital platforms, digitizing interaction with customers and suppliers, and continuously improving business processes in accordance with changes in the external environment. It is the complex nature of digital transformation that determines the need to develop modern methodological approaches to its management.

Despite a significant amount of scientific research devoted to the digitalization of the economy, automation of business processes, digital management and the development of information technologies, the issue of comprehensive management of the digital transformation of enterprises in the context of globalization remains insufficiently developed. Most of the existing research focuses on the technological aspects of digitalization, while the relationship between strategic management, organizational changes, digital technologies, business processes and digital maturity of enterprises requires further scientific substantiation. This makes it urgent to conduct research aimed at forming modern approaches to managing the digital transformation of busi-

ness processes of enterprises in the context of globalization and the development of the digital economy.

**Analysis of publications.** The scientific principles of the formation of the digital environment, the development of the digital economy and the transformation of modern socio-economic systems are actively studied by domestic and foreign scientists. At the same time, modern conditions of digitalization require a rethinking of traditional approaches to managing business processes of enterprises and the development of new models of digital transformation.

Thus, V. O. Lefterov studies the psychological features of the influence of the digital environment on the personality and notes that digitalization significantly changes the nature of professional activity, communication and decision-making processes, which should be taken into account when managing organizational changes and digital transformation of enterprises [1]. The institutional aspects of the development of modern economic systems are highlighted in the study of V. I. Shary, M. V. Zos-Kior and I. M. Kyrylyuk, who prove that the effectiveness of transformation processes is determined by the quality of the institutional environment and the interaction of major economic entities, which creates the prerequisites for the digital modernization of management processes [2]. The features of the digital transformation of marketing activities are considered by D. V. Rayko, I. V. Krolivets and G. V. Paymash, who note the change in the mechanisms of interaction of enterprises with clients, the active use of digital platforms, analytical tools and information technologies as integral components of modern digital business [3]. The problems of improving personnel management in the conditions of modern economic transformations are studied by I. A. Hnatenko and Yu. E. Kulikova. The authors emphasize that the competitiveness of enterprises largely depends on the development of human capital, professional competencies of employees and adaptation of the management system to new challenges of the digital economy [4]. A significant contribution to the study of the digital environment was made by R. Gurevich, G. Gordiychuk, V. Kobysya and L. Konoshevsky, who substantiate the principles of building a modern digital educational environment based on the integration of information resources, digital services and modern IT infrastructure. The approaches proposed by the authors can be adapted to the digital transformation of corporate governance of enterprises [5]. The issue of strategic development of the innovative economy in the context of digital transformations was investigated by I. A. Hnatenko, Yu. M. Popova, I. G. Bachkir and K. V. Nechyporenko, who consider the use of scenario foresight as a tool for determining state priorities for the development of the innovative economy and the intellectual potential of the country [6]. Considerable attention is paid to the development of digital competencies by G. R. Genseruk and S. V. Martyniuk, who prove that the formation of digital skills is one of the key prerequisites for the effective functioning of modern organizations and the successful implementation of digital transformation processes [7]. The features of the development of labor potential in the system of modern management are highlighted in the work of M. V. Zos-Kior, V. Ilyin and E. Svyryda, who consider human capital as a strategic resource for the development of an organization and increasing the efficiency of its activities in the context of digitalization of the economy [8]. Modern principles of building a digital environment are systematized in the study of O. S. Storonskaya, which defines the basic prin-

ciples of forming a digital infrastructure, integrating information services, data openness and ensuring digital interaction between participants in the relevant processes [9]. At the same time, the analysis shows that most scientific works are devoted to individual aspects of digitalization, the digital environment, human capital development, marketing technologies or innovative economics. At the same time, the issue of comprehensive management of digital transformation of business processes of enterprises in the context of globalization and the development of the digital economy remains insufficiently researched. Further scientific developments require the formation of integrated models for assessing the digital maturity of enterprises, improving the methodological tools for managing digital changes and developing comprehensive mechanisms for strategic management of digital transformation of business processes.

**Presentation of the main results.** Digital transformation of business processes is one of the key areas of development of modern enterprises, as it ensures the adaptation of their activities to the requirements of the global digital economy. Unlike the traditional automation of individual functional operations, digital transformation involves a comprehensive modernization of the management system, covering strategic planning, organization of business processes, corporate data management, interaction with external stakeholders, the use of modern digital platforms and the formation of a digital corporate culture. Under such conditions, the enterprise moves from the local application of information technologies to the construction of an integrated digital management system capable of ensuring a rapid response to changes in the market environment and supporting continuous business development [10; 11]. In the modern digital economy, the efficiency of enterprise activities is largely determined by the level of integration of digital technologies into business processes. Automation of operational activities, the use of corporate information systems, digital platforms, cloud services, big data, artificial intelligence technologies and intelligent analytics allow to reduce costs, accelerate the implementation of production and management operations, improve the quality of customer service and ensure the adoption of management decisions based on reliable information. At the same time, digital transformation should not be considered solely as a technological process, since its effectiveness depends on the coordinated development of organizational, personnel, information and strategic components of the management system [2; 5-7]. The globalization of economic processes significantly changes the nature of the functioning of business processes of enterprises.

The use of international digital platforms, integration into global value chains, the development of e-commerce and digital services necessitate the continuous exchange of information between all participants in economic activity. Under such conditions, digital transformation provides not only the automation of internal processes, but also the formation of a single digital environment for the interaction of the enterprise with suppliers, customers, financial institutions, government agencies and international partners. An important feature of modern digital transformation is its strategic nature [1; 3-4; 8]. The effectiveness of digital changes is determined not by the number of implemented digital technologies, but by the level of their integration into the enterprise management system. That is why the digital strategy should cover long-term goals of enterprise development, mechanisms for modernizing business processes, managing digital investments, developing digital competencies of per-

sonnel, improving the data management system and ensuring cyber resilience of information infrastructure.

The complex nature of digital transformation necessitates the systematization of its main management components, which allows determining the directions of digital development of the enterprise and forming a single mechanism for managing digital changes (Table 1).

**Table 1. The main components of managing the digital transformation of business processes of enterprises, proposed by the authors**

| Management component                           | Contents                                                   | Key tools                                    | Expected result                          |
|------------------------------------------------|------------------------------------------------------------|----------------------------------------------|------------------------------------------|
| Strategic management of digital transformation | Formation of a digital strategy for enterprise development | Digital Strategy, KPI, Balanced Scorecard    | Coherence of digital development         |
| Business process management                    | Optimization and digitalization of operational activities  | BPM, ERP, Workflow Management                | Improvement of process efficiency        |
| Digital data management                        | Organization of data collection, analysis and use          | Big Data, Data Warehouse, BI                 | Information support for management       |
| Digital technology management                  | Integration of modern digital solutions                    | Cloud Computing, IoT, AI                     | Automation of activities                 |
| Human resource management                      | Formation of digital competencies of employees             | HRM, LMS, Corporate Learning                 | Development of digital human capital     |
| Customer relationship management               | Digitalization of communications and services              | CRM, Digital Platforms, Omnichannel Services | Improvement of service quality           |
| Information security management                | Protection of the enterprise's digital infrastructure      | SIEM, IAM, Zero Trust                        | Digital sustainability of the enterprise |

The results of the systematization show that the digital transformation of business processes is a multi-component system, within which all components are interconnected. Achieving high efficiency of digital changes is possible only if they are implemented comprehensively, since the insufficient level of development of a single component significantly reduces the effectiveness of the functioning of the entire management system. That is why it is advisable to evaluate digital transformation based on an integrated approach that takes into account the cumulative impact of key areas of digital development of the enterprise.

To quantitatively assess the level of digital transformation of business processes of the enterprise, it is proposed to use the integrated index of digital transformation of business processes (Digital Transformation Business Process Index – DTBPI), which is determined by the formula:

$$DTBPI = \sum_{i=1}^5 w_i D_i$$

where: DTBPI – integral index of digital transformation of business processes;  $w_i$  – weight coefficient of the  $i$ -th component ( $w_i=1$ );  $D_i$  – level of digitalization of busi-

ness processes; D<sub>2</sub> – level of automation of operational activities; D<sub>3</sub> – level of use of digital technologies; D<sub>4</sub> – level of digital integration with the external environment; D<sub>5</sub> – level of development of digital competencies of personnel.

The proposed integral index allows for a comprehensive assessment of the effectiveness of the digital transformation of an enterprise, to identify the strengths and weaknesses of digital development, to compare the performance of different enterprises regardless of the industry and scale of operation, and to monitor the effectiveness of the implementation of the digital strategy in dynamics.

To ensure the objectivity of the integral assessment, it is proposed to assign a weight coefficient to each component depending on its strategic significance in the process of digital transformation (Table 2).

**Table 2. Weighting factors of the integral index of digital transformation of enterprise business processes, calculated by the authors**

| Component                                         | Marking        | Weight |
|---------------------------------------------------|----------------|--------|
| Digitalization of business processes              | D <sub>1</sub> | 0,25   |
| Automation of operational activities              | D <sub>2</sub> | 0,20   |
| Use of digital technologies                       | D <sub>3</sub> | 0,20   |
| Digital integration with the external environment | D <sub>4</sub> | 0,20   |
| Development of digital competencies of personnel  | D <sub>5</sub> | 0,15   |
| Together                                          | —              | 1,00   |

The advantage of the proposed approach is the universality of its application regardless of the industry specialization of the enterprise. It is recommended to normalize the values of partial indicators in the range from 0 to 1, which provides the possibility of comparing enterprises of different scales of activity and conducting a dynamic analysis of digital transformation. The closer the value of the integral index is to one, the higher the level of digital maturity of business processes and the effectiveness of implementing the enterprise's digital strategy. Along with assessing the overall level of digital transformation, it is advisable to determine the effectiveness of digital business process management, since it characterizes the effectiveness of integrating digital technologies into the daily activities of the enterprise. For this purpose, it is proposed to use the efficiency coefficient of digital business process management, which will be presented below in the form of the second author's model [3; 7].

For a more in-depth characterization of the effectiveness of digital transformation, it is advisable to assess not only the level of implementation of digital technologies, but also the effectiveness of their practical use in the process of enterprise management. Practice shows that significant investments in digitalization do not always provide a proportional increase in the productivity of business processes. The reason for this is the insufficient integration of digital solutions with the management system, inconsistency of information flows, low level of digital competences of personnel, fragmented use of corporate information systems and the absence of a single digital strategy for the development of the enterprise. That is why the assessment of digital transformation should combine quantitative characteristics of digitalization with indicators of the efficiency of business processes. For this purpose, it is proposed to

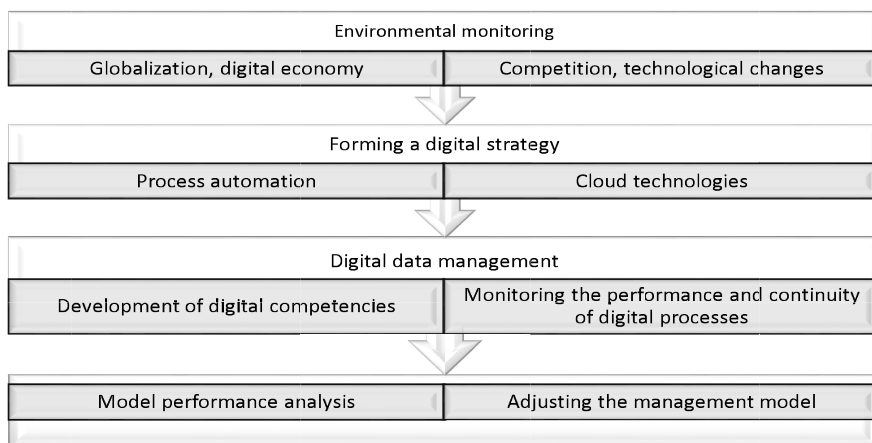
use the coefficient of efficiency of digital business process management (Digital Business Process Management Efficiency – DBPME), which is defined as the average value of the main functional components of digital management:

$$DTBPI = \frac{P + A + I + C + S}{5}$$

where: DBPME – efficiency coefficient of digital business process management; P – level of digitalization of basic business processes; A – level of automation of management activities; I – level of integration of enterprise information systems; C – level of digital interaction with clients and partners; S – level of information and cybersecurity of the digital environment.

The proposed indicator allows for a comprehensive assessment of the quality of functioning of a digital management system regardless of the size of the enterprise and its industry. The value of the coefficient is in the range from 0 to 1. Values close to unity indicate a high level of digital maturity of the management system and effective integration of digital technologies into all key business processes of the enterprise [1; 4; 7].

Unlike existing methods, the proposed approach takes into account the interrelationship of technological, organizational and managerial components of digital transformation. This allows it to be used as a tool for strategic analysis of digital development of enterprises, formation of digital modernization programs and monitoring of the effectiveness of digital strategy implementation. The generalization of theoretical provisions and proposed methodological approaches made it possible to form a conceptual model of managing the digital transformation of business processes of enterprises, which reflects the sequence of implementation of digital changes and the relationship between their key elements (Fig. 1).



**Fig. 1. Conceptual model of managing digital transformation of business processes of enterprises in the context of globalization and development of the digital economy, proposed by the authors**

The proposed conceptual model demonstrates that digital transformation of business processes should be considered as a cyclical management process, within which strategic planning, digital technologies, human capital development, integration of information resources and a system of continuous improvement function as a single interconnected system. This approach ensures not only the digitalization of individual business processes, but also the formation of a digitally mature enterprise capable of quickly adapting to changes in the global economic environment. The next stage of the study is the practical structuring of the levels of digital transformation of business processes by constructing the author's matrix for assessing the digital maturity of enterprises (Table 3).

**Table 3. Matrix for assessing the level of digital maturity of enterprise business processes, proposed by the authors**

| The value of the integral index DTBPI | Digital maturity level | Characteristics of the state of the enterprise                                                                                      | Management recommendations                                                                                            |
|---------------------------------------|------------------------|-------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| 0,00–0,20                             | Critical               | Digital technologies are practically absent, business processes are performed mainly manually, information flows are not integrated | Development of a digital strategy, creation of basic IT infrastructure, automation of core processes                  |
| 0,21–0,40                             | Beginner               | Individual digital solutions are used fragmentarily, there is no unified digital management system                                  | Integration of information systems, digitalization of document flow, development of digital competencies of personnel |
| 0,41–0,60                             | Medium                 | Most business processes are automated, corporate digital management systems are used                                                | Expanding the use of ERP, CRM, BI, integration of analytical platforms and decision support systems                   |
| 0,61–0,80                             | High                   | Business processes are integrated into the digital environment, modern digital technologies are actively used                       | Development of artificial intelligence, Big Data, digital platforms, increasing the level of cyber resilience         |
| 0,81–1,00                             | Digital leadership     | The enterprise functions as a digitally mature organization with a high level of automation and adaptability                        | Scaling of digital innovations, development of a digital ecosystem, formation of new digital business models          |

The proposed matrix is a practical tool for strategic diagnostics of the level of digital transformation of an enterprise. Unlike traditional approaches based mainly on the analysis of individual information technologies or the level of automation of individual functions, it takes into account the complex nature of digital development and allows you to assess the degree of integration of digital technologies into the business process management system. The use of the integral index DTBPI provides the possibility of objective comparison of enterprises of different industries, scales of activity and organizational structures, which is especially relevant in the context of

the digitalization of the economy and increased global competition. Practical testing of the proposed methodological approach shows that the most significant influence on the formation of a high level of digital maturity is not individual digital technologies, but their comprehensive integration into the corporate governance system. The highest results are achieved by enterprises that combine the automation of operational activities with the use of analytical platforms, digital systems to support management decisions, modern tools for managing relationships with customers, cloud services and artificial intelligence technologies. At the same time, the fragmented implementation of digital solutions without adapting the organizational structure, business processes and management system does not ensure a sustainable increase in the efficiency of the enterprise.

The results obtained confirm that digital transformation should be considered as a long-term management process that involves continuous improvement of business processes, development of digital competencies of personnel, modernization of information infrastructure and formation of a single digital management environment. Of particular importance is the integration of digital strategy with the overall development strategy of the enterprise, which allows for timely response to changes in the external environment, ensuring flexibility of the organizational structure, improving the quality of management decisions and forming new competitive advantages in global markets. The developed methodological approach is universal in nature and can be used by enterprises of various types of economic activity when forming digital transformation programs, conducting an internal audit of digital maturity, assessing the effectiveness of the implementation of a digital strategy and substantiating investment decisions regarding the development of digital infrastructure. The proposed models, indicators, and evaluation matrix can be integrated into the strategic management system of enterprises as an analytical tool for monitoring the effectiveness of digital changes and ensuring their long-term competitiveness in the context of the development of the digital economy.

**Conclusions.** The conducted research made it possible to substantiate the theoretical and methodological principles of managing the digital transformation of business processes of enterprises in the context of globalization and the development of the digital economy. It was established that digital transformation should not be identified only with the implementation of individual information technologies or the automation of certain operations. It is a complex and continuous process of strategic updating of the management system, organizational structure, business processes, mechanisms of interaction with clients and partners, approaches to the use of data and the formation of digital competencies of personnel. It is substantiated that the effectiveness of digital changes is determined primarily by the level of their integration into the overall strategy for the development of the enterprise. Fragmented implementation of digital solutions without coordination with the goals of the enterprise, the structure of business processes, human resources and information infrastructure does not provide a sustainable increase in efficiency. Therefore, the digital strategy should be formed as a component of the overall corporate strategy and include the modernization of business processes, digital investment management, the development of digital culture, data management and ensuring cyber resilience. The study systematizes the main components of digital transformation management of

business processes of enterprises, which include strategic digital change management, business process management, digital data, technological infrastructure, personnel, customer interaction and information security. Their interconnection forms a holistic digital management system, in which technologies act not only as a means of automation, but also as a tool for transforming the enterprise's business model and creating new competitive advantages.

Additionally, the efficiency coefficient of digital business process management DBPME has been developed, which characterizes the effectiveness of the practical use of digital technologies in the management system. Unlike assessing only the fact of the availability of technologies, this indicator takes into account the level of digitalization of basic processes, automation of management activities, integration of information systems, digital interaction with clients and partners, as well as information and cybersecurity. This increases the analytical value of the methodological approach and makes it possible to assess not only the scale of digitalization, but also the real effectiveness of digital management. The developed conceptual model of digital transformation management reflects the relationship between the influence of the external environment, digital strategy, digital technologies, data management, human capital development, continuous improvement and the results of the enterprise's activities. Its use contributes to the transition from local automation to the formation of an integrated digital environment capable of ensuring adaptability, innovation, operational efficiency and resilience of the enterprise to changes in the global market.

The developed digital maturity assessment matrix provides for the identification of critical, initial, medium, high levels and the level of digital leadership. It allows not only to identify the state of digital development of the enterprise, but also to determine the appropriate management actions. For enterprises with a low level of digital maturity, the priority is the creation of basic IT infrastructure, digitalization of document flow and automation of key operations. At higher levels, the emphasis is shifted to the integration of ERP, CRM and BI systems, the use of artificial intelligence, big data, digital platforms and the formation of new digital business models. Of particular importance is the development of digital competencies of personnel. Even a modern technological infrastructure does not provide the expected results without the readiness of employees to use digital tools, work with data, support organizational changes and participate in continuous improvement of business processes. Therefore, digital training, the development of digital leadership, the formation of an innovative corporate culture and overcoming resistance to change should be integral components of digital transformation. A necessary condition for sustainable digital development is also ensuring information and cybersecurity. The expansion of the use of cloud services, digital platforms, remote access and corporate data increases the vulnerability of enterprises to cyber threats. In this regard, the digital management system should include access control, threat monitoring, backup, incident response and mechanisms for ensuring the continuity of business processes.

The practical value of the proposed approach lies in the possibility of its use by enterprises of various industries, scales and organizational and legal forms. The DTBPI integral index, DBPME coefficient, conceptual model and digital maturity matrix can be used during digital audits, developing a corporate digital strategy, determining invest-

ment priorities, monitoring the effectiveness of digital changes and substantiating management decisions. The proposed toolkit directly continues the methodological provisions given in the main part of the article and corresponds to its orientation towards comprehensive management of the digital transformation of business processes. Thus, the long-term competitiveness of enterprises in the digital economy depends not on the number of implemented technologies, but on the ability to combine strategy, business processes, data, personnel, digital infrastructure and cybersecurity into a single management system. Prospects for further research include practical testing of the proposed methodological approach at enterprises of various types of economic activity, refinement of the weighting coefficients of the integral index, development of industry criteria for digital maturity and assessment of the impact of digital transformation on the financial, innovative, market and operational results of enterprises.

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