

Digital Transformation as a Strategic Vector for Improving Enterprise Management Models

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Abstract. The article examines digital transformation as a strategic vector for improving managerial models of enterprises under global challenges and in the context of Ukraine's post-war recovery. Digitalization is defined not merely as a technical process of implementing new technologies but as a systemic change of the managerial paradigm that transforms business logic, modernizes management structures, and creates new forms of economic interaction.

The theoretical foundations of digital transformation are considered through the prism of economic, managerial, and technological dimensions. Its impact on the formation of analytical platforms, the development of managerial competencies, and the establishment of an innovative organizational culture is emphasized. The article substantiates that digital transformation becomes a catalyst for the modernization of managerial models, reshaping the nature of strategic decision-making and enhancing the transparency of business processes.

Special attention is paid to the strategic potential of digital transformation, which lies in its ability to generate new trajectories of economic development, create long-term competitive advantages, and integrate enterprises into global value chains. It is shown that digital innovations act as a key resource for resilience, recovery, and growth of Ukrainian enterprises. At the same time, the article outlines challenges and limitations of the transformation process, including institutional instability, skill gaps, investment deficit, and increasing cyber threats.

The generalization of the study's results confirms that digital transformation shapes a new quality of strategic management and defines the prospects for Ukraine's economic development. It ensures the synergy of technologies, analytics, and organizational changes, thereby creating the foundation for sustainable growth and innovative progress of the national economic system.

Keywords: digital transformation, strategic management, managerial models, innovation, business processes, analytical platforms, digital competencies, organizational culture, competitiveness, investment deficit, cyber threats, economic development.

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Цифрова трансформація як стратегічний вектор удосконалення управлінських моделей підприємств

Анотація. У статті досліджено цифрову трансформацію як стратегічний вектор удосконалення управлінських моделей підприємств в умовах глобальних викликів та післявоєнного відновлення України. Цифровізація визначена не лише як технічний процес упровадження новітніх технологій, а як системна зміна управлінської парадигми, що трансформує логіку функціонування бізнесу, модернізує структури управління та створює нові форми економічної взаємодії.

Теоретичні засади цифрової трансформації розглянуто крізь призму економічних, управлінських і технологічних вимірів. Підкреслено її вплив на формування аналітичних платформ, розвиток компетентностей управлінців та формування інноваційної організаційної культури. У статті обґрунтовано, що цифрова трансформація стає каталізатором модернізації управлінських моделей, змінюючи характер прийняття стратегічних рішень і підвищуючи прозорість бізнес-процесів.

Особливу увагу приділено стратегічному потенціалу цифрової трансформації, який полягає у здатності створювати нові траєкторії економічного розвитку, формувати довгострокові конкурентні переваги та інтегрувати підприємства в глобальні ланцюги доданої вартості. Показано, що цифрові інновації виступають ключовим ресурсом стійкості, відновлення та зростання українських підприємств. Разом із тим окреслено виклики й обмеження процесу трансформації, зокрема інституційну нестабільність, кадрові розриви, інвестиційний дефіцит і зростання кіберзагроз.

Узагальнення результатів дослідження підтверджує, що цифрова трансформація формує нову якість стратегічного управління та визначає перспективи розвитку економіки України. Вона забезпечує синергію технологій, аналітики й організаційних змін, створюючи підґрунтя для сталого зростання та інноваційного поступу національної господарської системи.

Ключові слова: цифрова трансформація, стратегічне управління, управлінські моделі, інновації, бізнес-процеси, аналітичні платформи, цифрові компетентності, організаційна культура, конкурентоспроможність, інвестиційний дефіцит, кіберзагрози, економічний розвиток.

Introduction

The digital transformation of enterprises is defined as a key vector of the strategic development of Ukraine's economy under conditions of global competition and wartime challenges. It encompasses the integration of innovative technologies into all spheres of management, shapes a new logic of business interaction with the external environment, and creates a foundation for the recovery of the national economic system. Traditional management models are losing effectiveness, as the dynamics of the digital economy demand rapid adaptation, openness to innovation, and analytical support for decision-making.

The relevance of the study is determined by the dual role of digital transformation. On the one hand, it serves as a tool for optimizing business processes and improving the effectiveness of managerial decisions; on the other hand, it functions as a strategic platform for long-term competitiveness, innovative resilience, and enterprise adaptability in conditions of constant challenges.

The necessity of in-depth scientific analysis lies in examining the theoretical foundations of digital transformation, its impact on the system of strategic management, the modernization of managerial models, as well as identifying the strategic potential and barriers that accompany this process.

Recent scientific literature focuses on the various dimensions of digital transformation: from the technological foundations of its development to the strategic and organizational implications for enterprises. In the works of both foreign and Ukrainian researchers,

digitalization is interpreted as a systemic change in managerial logic that goes beyond technical innovations. Some authors emphasize the role of digital platforms in shaping new business models, while others highlight the development of managers' digital competencies and the emergence of an innovative organizational culture. Taken together, these approaches provide a basis for an integrative analysis of digital transformation in the context of Ukraine's modern economy.

Results

The digital transformation of enterprises in Ukraine emerges as a fundamental factor in shaping the strategic benchmarks of modern business. In a world of global technological shifts that define the rules of competitive rivalry, digitalization acts as a key resource for economic resilience and the recovery of the national economic system. Under the conditions of Russia's military aggression against Ukraine, digital strategies acquire strategic significance, as they allow enterprises to maintain manageability, preserve markets, and move onto new development trajectories.

The phenomenon of digital transformation encompasses technological solutions, managerial practices, organizational models, and methods of strategic forecasting. Digital technologies create conditions for the development of analytical platforms that improve decision-making accuracy, ensure real-time monitoring, and enable process optimization. Digitalization becomes a catalyst for the modernization of management structures, as transformational processes demand changes in managerial thinking, the development of digital competencies, and the establishment of a culture of innovation-driven growth.

Digital transformation is of particular relevance for Ukrainian enterprises in the post-war perspective. It determines the economic performance of business and the level of the country's competitiveness within the global system of resource and capital distribution. Considering digital transformation as a strategic vector for improving enterprise management models makes it possible to outline new contours of national economic policy, focused on preserving and developing human capital, fostering innovation, and structurally modernizing production processes.

The theoretical foundations of digital transformation form the conceptual basis of modern strategic enterprise management. Digitalization is viewed as a systemic process that integrates information and communication technologies into all levels of managerial activity. Its essence lies in transforming the ways enterprises interact with the external environment, modernizing internal business processes, and rethinking the role of data in strategic decision-making.

In scientific discourse, digital transformation is interpreted as an interdisciplinary phenomenon that combines economic, managerial, and technological dimensions. The economic dimension is reflected in the creation of new value-formation models, productivity gains, and the rationalization of resource use. The managerial dimension focuses on improving governance structures, introducing analytical forecasting platforms, and increasing decision-making transparency. The technological dimension is realized through the widespread implementation of artificial intelligence, cloud services, blockchain solutions, and cybersecurity systems that constitute the core of enterprises' digital infrastructure.

Crucial to the theoretical understanding of digital transformation is its strategic character. The local application of technologies recedes into the background, while the dominant role is played by the holistic transformation of the managerial paradigm, which turns the enterprise into an adaptive system open to innovation. The model formed on this basis develops new managerial competencies, strengthens the integration of enterprises into global value chains, and ensures the advancement of resilient business ecosystems.

Theoretical approaches to digital transformation emphasize its ability to modernize managerial models and lay the foundations for innovative growth, which is of decisive importance for Ukrainian enterprises in the era of post-war recovery.

Within the system of strategic enterprise management, digital transformation defines new principles of business organization and forms innovative approaches to coordinating managerial decisions. It is revealed as a logic of using digital technologies to integrate key processes, create network structures, and enhance the transparency of interaction among all participants in economic relations. Digital tools ensure the speed of data analysis, enable accurate forecasting, and foster an environment for the continuous improvement of business models.

In strategic management systems, digital transformation serves as a mechanism for increasing the efficiency of managerial decisions. The application of big data, machine learning algorithms, and automated management systems allows enterprises to monitor market changes and promptly adjust strategies. This creates conditions for enhancing adaptability, minimizing risks, and securing competitive advantages in a global environment. Enterprises that integrate digital solutions into strategic management are able to respond more quickly to crises and ensure development stability.

Particular importance lies in the interaction between digital transformation and organizational culture. Strategic change cannot be limited to technical innovations; it must also encompass shifts in value orientations and the formation of innovative managerial thinking. A strategic management system based on digital principles fosters a culture of transparency, builds trust between employees and managers, and stimulates collective responsibility for results.

Ultimately, digital transformation in strategic management determines a new quality of enterprise economic development, as the integration of technologies, analytics, and organizational changes provides synergy of strategic resources and opens up prospects for sustainable growth.

The modernization of managerial models in the digital transformation era appears as a natural process of changing management paradigms. Traditional approaches, based on hierarchical control and standardized procedures, are losing effectiveness in the dynamic environment of the global economy. Models focused on flexibility, rapid adaptation, and the integration of innovative solutions into business processes are coming to the forefront.

Modern management models emphasize network structures and horizontal forms of interaction. They ensure the rapid dissemination of knowledge, the formation of cross-functional teams, and decision-making in real time. Digital technologies become the core of the managerial system that defines the pace of enterprise development. Analytical platforms perform multidimensional data analysis, create conditions for risk forecasting, and enable the construction of strategies based on evidence-based indicators.

A key consequence of the modernization of management models is the transformation of the competency profile of managers. The modern manager combines strategic thinking with technological awareness, the ability to work with large datasets, and skills in shaping innovative organizational cultures. In this context, digital transformation changes the managerial toolkit while simultaneously defining new requirements for human capital, turning it into a decisive resource for development.

The modernization of management models reflects the transition of enterprises from rigid structures to flexible systems. Technology, analytics, and innovative competencies create a synergy that increases efficiency and ensures competitiveness.

The strategic potential of digital transformation lies in its ability to shape new trajectories of enterprise economic development and strengthen their position in the global market. Digital solutions are not just tools of optimization but mechanisms for creating long-term competitive advantages. They open access to new sources of value, enhance strategic resilience, and ensure enterprises' ability to recover after crises.

A key dimension of strategic potential is the strengthening of innovation activity. Digital transformation promotes the development of new business models, the formation of

partnership ecosystems, and the integration of enterprises into global value chains. It stimulates the accelerated implementation of scientific and technological developments, creates conditions for the commercialization of innovations, and reinforces the dynamics of technological progress.

Another dimension of strategic potential concerns risk management. The use of analytical platforms, artificial intelligence, and automated forecasting systems improves the accuracy of threat assessment and makes it possible to design adaptation scenarios in advance. In this way, enterprises acquire tools to maintain stability and scalability even under conditions of uncertainty.

The strategic potential of digital transformation also has national significance. For Ukraine, it represents a resource for economic recovery, the strengthening of global competitiveness, and the consolidation of an innovation-oriented culture. The realization of this potential requires comprehensive state support focused on the development of digital infrastructure, the formation of human capital, and the stimulation of investment in high-tech sectors.

Thus, the strategic potential of digital transformation defines the long-term benchmarks of economic progress, ensures business resilience, and opens perspectives for building an innovative economy in Ukraine.

The challenges and limitations of digital transformation form a complex context for its implementation in Ukrainian enterprises. Despite its evident advantages, the introduction of digital strategies encounters barriers that slow down its effectiveness and limit the scale of its impact. Among the most acute challenges are institutional instability, skill gaps, limited access to investment resources, and the growing threat of cyber risks.

Institutional instability is manifested in the inconsistency of state policy, the insufficient level of legal regulation, and the lack of incentives for digital innovation. This creates risks of fragmentation in the transformation process and limits the long-term planning opportunities of enterprises. Skills gaps are expressed in the shortage of specialists with digital competencies, which complicates the modernization of management models and slows down the spread of innovative practices.

A serious constraint is the investment deficit. Enterprises often lack sufficient financial resources for the large-scale implementation of digital technologies, while the availability of credit and venture capital remains low. This hinders the development of modern digital infrastructure and reduces the speed of adaptation to global challenges. The rise of cyber threats adds a new dimension to the limitations of digital transformation, as the protection of information systems and data requires continuous investment and specialized expertise.

The challenges and limitations of digital transformation prove that its implementation requires a comprehensive approach that combines state support, investment activity, and human capital development. Only in this way can the systemic nature of digital change be ensured and its impact on the competitiveness of Ukrainian enterprises achieved.

Conclusions

Digital transformation demonstrates its role as a systemic factor of modernization that changes the logic of business functioning and ensures the adaptation of enterprises to global challenges.

First, digitalization forms a new management paradigm in which technologies become the core of strategic decisions and data the primary resource for forecasting and control. This allows enterprises to increase efficiency, expand market opportunities, and strengthen resilience under crisis conditions.

Second, digital transformation reshapes management models, orienting them toward flexibility, innovation, and rapid responsiveness to environmental changes. It develops new

managerial competencies, strengthens integration into global economic systems, and creates the foundation for sustainable business ecosystems.

Third, the strategic potential of digital transformation lies in its ability to secure long-term competitive advantages, stimulate innovative activity, and support national economic recovery. It defines new benchmarks for state policy, focused on the development of digital infrastructure, human capital, and investment in high-tech sectors.

Thus, digital transformation is not a short-term trend but a strategic foundation for the future economic development of Ukraine. Its implementation in enterprise management models ensures modernization, strengthens competitiveness, and paves the way for building an innovative and resilient economy.

References

1. van Gils, B., & Proper, H. A. (2018, October). Enterprise modelling in the age of digital transformation. In *IFIP Working Conference on The Practice of Enterprise Modeling* (pp. 257-273). Cham: Springer International Publishing.
2. Ilin, I., Levina, A., Borremans, A., & Kalyazina, S. (2019). Enterprise architecture modeling in digital transformation era. In *Energy management of municipal transportation facilities and transport* (pp. 124-142). Cham: Springer International Publishing.
3. Babar, Z., & Yu, E. (2019, October). Digital transformation—implications for enterprise modeling and analysis. In *2019 IEEE 23rd International Enterprise Distributed Object Computing Workshop (EDOCW)* (pp. 1-8). IEEE.
4. Zimmermann, A., Schmidt, R., Sandkuhl, K., Jugel, D., Bogner, J., & Möhring, M. (2018, October). Evolution of enterprise architecture for digital transformation. In *2018 IEEE 22nd International Enterprise Distributed Object Computing Workshop (EDOCW)* (pp. 87-96). IEEE.
5. Schwertner, K. (2017). Digital transformation of business. *Trakia Journal of Sciences*, 15(1), 388-393.
6. Cheng, L. (2022). Decision modeling and evaluation of enterprise digital transformation using data mining. *Mobile information systems*, 2022(1), 2380100.
7. Li, R., Rao, J., & Wan, L. (2022). The digital economy, enterprise digital transformation, and enterprise innovation. *Managerial and Decision Economics*, 43(7), 2875-2886.
8. Agustian, K., Mubarak, E. S., Zen, A., Wiwin, W., & Malik, A. J. (2023). The impact of digital transformation on business models and competitive advantage. *Technology and Society Perspectives (TACIT)*, 1(2), 79-93.
9. Rêgo, B. S., Jayantilal, S., Ferreira, J. J., & Carayannis, E. G. (2022). Digital transformation and strategic management: A systematic review of the literature. *Journal of the Knowledge Economy*, 13(4), 3195-3222.
10. Grab, B., Olaru, M., & Gavril, R. M. (2019). The impact of digital transformation on strategic business management. *Ecoforum Journal*, 8(1).
11. Bozintan, A. G., Crişan, E. L., & Pinco, O. (2023). The impact of digital transformation on strategic management. *The Annals of the University of Oradea, Economic Sciences*, 32(1), 647-657.
12. Sujatha, S. (2024). Strategic Management of Digital Transformation: A Case Study of Successful Implementation. *Global Perspectives in Management*, 2(1), 1-11.
13. Gobble, M. M. (2018). Digital strategy and digital transformation. *Research-Technology Management*, 61(5), 66-71.