

THE IMPACT OF DIGITALISATION ON ECONOMIC SECURITY AND THE EFFECTIVENESS OF COMPANY DEVELOPMENT MANAGEMENT

Liudmyla LEVAIEVA

PhD in Economics, Associate Professor,
Hryhorii Skovoroda University in Pereiaslav, Ukraine
E-mail: lluda85@i.ua
ORCID ID: 0009-0004-9569-585X

Svitlana KUCHERENKO

PhD in Economics, Associate Professor
Hryhorii Skovoroda University in Pereiaslav, Ukraine
E-mail: ksvetau66@gmail.com
ORCID ID: 0000-0001-7560-1212

Oleh KUCHERENKO

Postgraduate Student,
Hryhorii Skovoroda University in Pereiaslav, Ukraine
E-mail: olegfox99@gmail.com
ORCID: 0000-0002-7500-030X

Abstract: *The article examines the impact of digitalisation processes on the economic security of enterprises and the effectiveness of company development management. It considers the main advantages of introducing digital technologies into the activities of enterprises, as well as the risks that arise in the process of digital business transformation. The role of information security in ensuring the stable functioning of companies in today's globalised environment is determined. It is substantiated that the effective use of digital technologies contributes to increasing the competitiveness of enterprises, optimising business processes and forming a modern system of company development management. The paper analyses the main areas of influence of digitalisation on the activities of enterprises, in particular on improving management efficiency, labour productivity, cost optimisation and market expansion. Particular attention is paid to the analysis of risks arising in the process of digital transformation, including cyber attacks, leakage of confidential information, technical failures of information systems, and the dependence of enterprises on digital infrastructure. It is proven that in the context of the active development of digital technologies, an important element of strategic enterprise management is the formation of an effective system of economic and information security. The article also examines the impact of digital technologies on strategic planning processes, the organisation of management processes and management decision-making. It is emphasised that the use of modern information and analytical systems contributes to improving management efficiency, improving the coordination of structural units and the formation of new business models. From the perspective of microeconomic analysis, it is determined that digitalisation contributes to reducing transaction costs, increasing the efficiency of resource use, and strengthening the competitive positions of enterprises. The need to improve risk management mechanisms and introduce modern tools to ensure the economic security of enterprises in the digital economy is substantiated.*

Keywords: *Digitalisation, economic security, information security, company development management, digital transformation, enterprise, competitiveness.*

Classification JEL: *O33, M15, L25, D23, G32.*

UDC: *004:[338.1+005]* **DOI:** <https://doi.org/10.53486/ser2026.14>

1. Introduction

In the current conditions of global economic development, digitalisation is becoming one of the key factors in the transformation of the business environment. The active introduction of

digital technologies is changing traditional approaches to the organisation of production, enterprise management and interaction with the external environment. Enterprises are increasingly using digital platforms, information systems, process automation and other innovative tools to improve the efficiency of their activities.

At the same time, digitalisation creates not only new opportunities for companies to grow, but also new challenges and risks related to ensuring economic and information security. Breaches of information security, cyberattacks, leaks of commercial information, or dependence on digital infrastructure can negatively affect the stability of enterprises.

In this regard, it is particularly important to study the impact of digitalisation on the economic security of enterprises and the effectiveness of company development management, which allows for the formation of effective mechanisms for adapting businesses to the current conditions of the digital economy.

2. Literature Review

The problems of economic security of enterprises and the impact of digitalisation on business development have been studied by many domestic and foreign scientists. In particular, the works of Baranovsky (2014) reveal the theoretical foundations of economic and financial security and substantiate its role in ensuring the stable functioning of enterprises and the national economy. The theoretical foundations of economic security of enterprises are also considered in the works of Ukrainian researchers Blank (2004) and Kozachenko et al. (2003), who studied the mechanisms for ensuring the financial and economic stability of enterprises. The issues of forming an enterprise economic security system and threat management are also analysed in the scientific works of Vasyltsiv et al. (2012), which examine tools for improving the economic stability of economic entities. Contemporary aspects of the development of enterprise economic security systems in the context of digitalisation and economic transformation are studied by Andriiv (2023), Zubko (2022), Zhadko and Samoilenko (2020), and Rudnichenko et al. (2024), who consider new threats to the functioning of enterprises, in particular information risks, cyber threats and the dependence of business on digital infrastructure.

Foreign scientists have made a significant contribution to the study of the impact of digitalisation on business development. In particular, Brynjolfsson and McAfee (2014), in their work "The Second Machine Age," explore the impact of digital technologies on productivity, cost structure and competitiveness of companies. The issues of digital business transformation and its impact on enterprise management are addressed in the studies by Westerman et al. (2014), who analyse the role of digital technologies in improving the efficiency of management processes.

The problems of digital transformation of organisations are also explored in the works of Vial (2019), which examines the mechanisms of digitalisation's impact on business models. The issue of integrating digital technologies into corporate strategy is analysed in a scientific article by Bharadwaj et al. (2013), dedicated to the formation of a digital business strategy.

At the same time, scientific research pays considerable attention to issues of cybersecurity and the protection of enterprises' information resources. In particular, Anderson (2008), in his work Security Engineering, examines mechanisms for ensuring information security and managing cyber risks in the digital environment.

The issues of forming the structure of an enterprise's economic security, its functional components and risk management are also covered in the works of Zybareva and Burachok (2025), which examine the factors of economic security of enterprises and identify strategic directions for its strengthening in the context of modern economic transformations.

Despite a significant amount of scientific research in this area, the issues of comprehensive analysis of the impact of digitalisation on the economic security of enterprises and the effectiveness of company development management remain insufficiently studied and require further scientific research.

3. Methodology

The study of the impact of digitalisation on economic security and the effectiveness of company development management was carried out using methods of theoretical generalisation, analysis and synthesis of scientific sources. In the course of the research, scientific works by domestic and foreign scientists devoted to the problems of economic security of enterprises, digital transformation of business, information security and management of company development were studied.

The research process consisted of several stages:

- analysis of scientific publications on the issues of economic security of enterprises, digitalisation of business and management of company development;
- systematisation of theoretical approaches to defining the essence of economic and information security of enterprises in the digital economy;
- summarising the results of research on the impact of digital technologies on the effectiveness of enterprise management, the level of competitiveness and economic stability of companies;
- comparative analysis of scientific approaches to assessing the risks of digitalisation and identifying areas for improving the economic security of enterprises.

The application of these research methods made it possible to comprehensively examine the impact of digitalisation on the economic security of enterprises and determine its role in improving the effectiveness of company development management in the modern digital economy.

4. Results and Discussion

Digitalisation is one of the key areas of development in the modern economy. It involves the use of digital technologies in various areas of enterprise activity, including production, management, marketing, logistics and finance (Westerman et al., 2014). The introduction of digital technologies contributes to the optimisation of business processes, increased labour productivity and reduced costs (Bharadwaj et al., 2013).

As can be seen from Table 1, the introduction of digital technologies creates significant opportunities for business development. In particular, digitalisation contributes to improving management efficiency, optimising costs and improving customer interaction.

One of the important aspects of digitalisation is its impact on the economic security of a business. The economic security of a company is seen as the protection of its resources, interests, and development potential from internal and external threats. In today's world, a lot of these threats are linked to the digital environment.

Table 1. Key benefits of digitalisation for enterprise development

Area of impact	Characteristic
Improved management efficiency	The use of information systems allows for rapid data analysis and management decision-making
Cost optimisation	Process automation reduces production and management costs
Increased labour productivity	The use of digital technologies speeds up production and management operations
Expansion of sales markets	Internet platforms and e-commerce enable companies to enter new markets
Improved customer interaction	The use of CRM systems and online communications improves service quality

Source: developed by the authors

The use of digital technologies allows enterprises to improve the efficiency of business process management. Thanks to the automation of information processing, company management can quickly obtain the data necessary for making management decisions. This contributes to a more rational use of resources, cost optimisation and increased competitiveness of the enterprise (Brynjolfsson & McAfee, 2014).

At the same time, digitalisation creates certain risks for the economic security of a company. Among the main threats are cyber attacks, leakage of confidential information, disruption of information systems, and the dependence of the enterprise on digital infrastructure. Such risks can lead to financial losses, loss of business reputation and a decrease in the efficiency of the enterprise (Vial, 2019).

Table 2. Main risks of digitalisation for the economic security of an enterprise

Type of risk	Characteristics
Cyber threats	Unauthorised access to information systems, hacker attacks
Information leakage	Disclosure of commercial or confidential information
Technical failures	Disruption of servers, software or information systems
Dependence on IT infrastructure	Business process downtime in the event of technical problems
Insufficient staff training	Employee errors when using digital technologies

Source: developed by the authors

The data in Table 2 show that, along with its positive effects, digitalisation poses new threats to the economic security of enterprises. Therefore, an important task for management is to develop an effective information security and risk management system.

A conceptual model of the impact of digitalisation on economic security and the effectiveness of enterprise development management is presented in Figure 1.

In this regard, an important task for company management is to develop an effective information security system. This includes a set of organisational, technical and legal

measures aimed at protecting the enterprise's information resources from unauthorised access, damage or loss (Tulchynska et al., 2021).

Effective management of a company's development in the context of digitalisation involves the use of modern information technologies for planning, controlling and analysing the enterprise's activities. Digital tools enable company management to respond quickly to changes in the market environment, assess risks and make strategic decisions regarding the development of the enterprise.

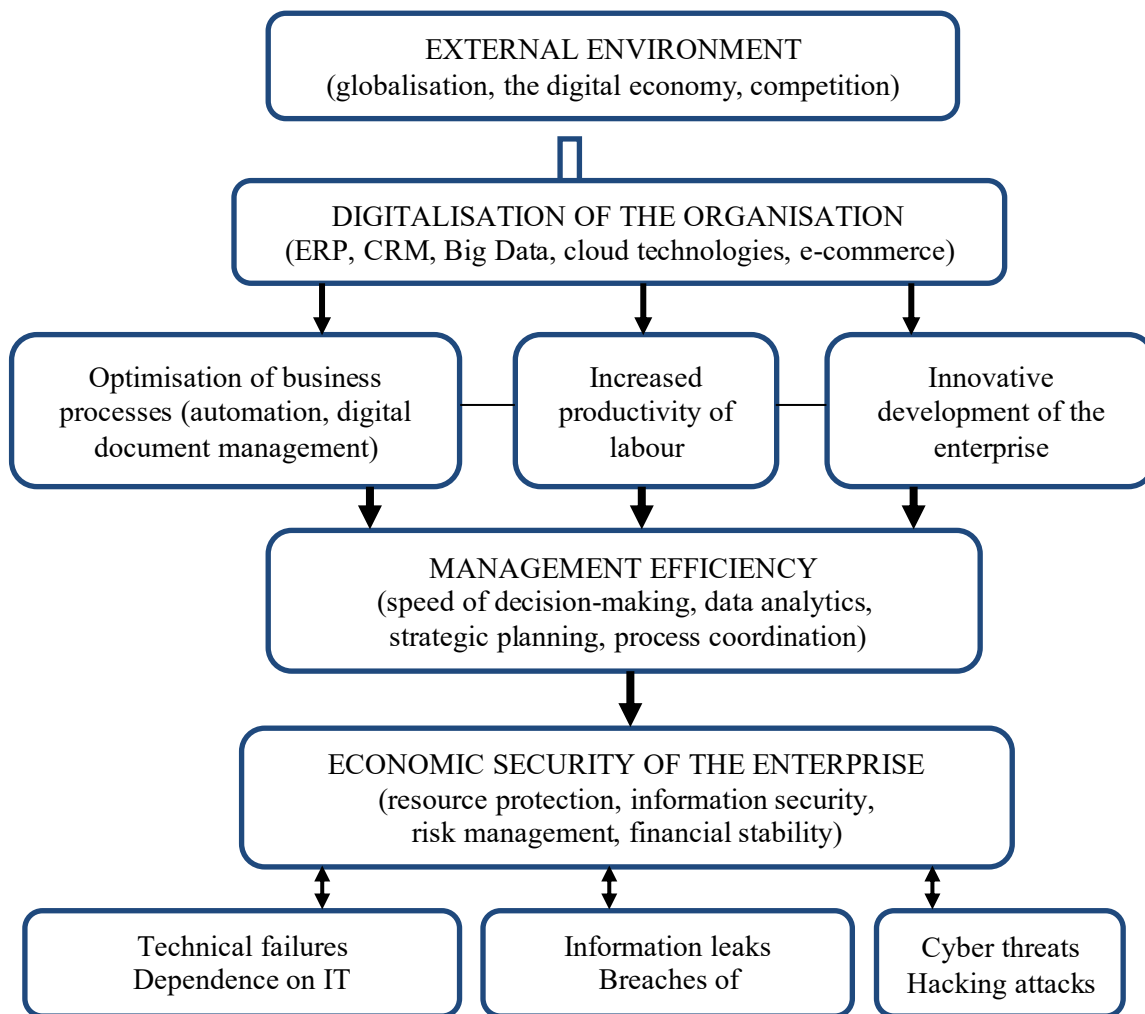


Figure 1. Conceptual model of the impact of digitalisation on economic security and the effectiveness of enterprise development management

Source: developed by the authors

In addition, digitalisation contributes to the improvement of the company's strategic planning system. The use of modern information and analytical systems allows the company's management to conduct a comprehensive analysis of the internal and external environment, assess the efficiency of resource use and identify potential threats in a timely manner. This ensures more informed management decisions and the formation of long-term strategies for the company's development (Rudnichenko et al., 2024).

Another important aspect is the impact of digital technologies on the organisation of management processes. Thanks to the introduction of electronic document management, automated management systems and digital platforms, the speed of information exchange between structural units of the enterprise is increasing. This contributes to more effective coordination of activities, reduction of management costs and increased responsiveness to changes in market conditions.

At the same time, digitalisation stimulates the innovative development of enterprises and the formation of new business models. The use of digital technologies opens up opportunities for the introduction of innovative products and services, the expansion of sales channels and the improvement of customer interaction. As a result, enterprises gain additional competitive advantages, which has a positive impact on their economic stability and prospects for further development (Zubko, 2022).

From the point of view of microeconomic analysis, digitalisation affects the structure of an enterprise's costs, labour productivity, resource efficiency and competitiveness. Enterprises that actively implement digital technologies have the opportunity to reduce transaction costs, improve product quality, and expand sales markets. At the same time, the effective use of digital technologies requires an appropriate level of staff training, investment in the development of information infrastructure, and the formation of a modern risk management system.

Thus, digitalisation is an important factor in improving the effectiveness of company development management. It creates new opportunities for innovative development of enterprises, but at the same time requires an adequate level of economic and information security.

5. Conclusions

Therefore, digitalisation is an important factor in the development of modern enterprises and has a significant impact on the effectiveness of company management. The use of digital technologies contributes to the optimisation of business processes, increased labour productivity, reduced costs and strengthened competitive positions of enterprises in the market.

At the same time, digitalisation processes create new challenges for the economic security of enterprises, particularly in the area of information resource protection and digital risk management. In this regard, an important task for modern companies is to develop an effective information and economic security system that will minimise potential threats and ensure the stable development of the enterprise.

Further research in this area could focus on developing practical mechanisms for improving the economic security of enterprises in the process of digital business transformation.

6. References

- Anderson, R. (2008). *Security engineering: A guide to building dependable distributed systems* (2nd ed.). Wiley Publishing.
- Andriiv, N. M. (2023). Informational basis for ensuring the economic security of industrial enterprises. *Azov Economic Bulletin, 1*, 9–13. http://nbuv.gov.ua/UJRN/priaev_2023_1_4
- Baranovsky, O. I. (2014). *Philosophy of security*. UBS NBU.

- Bharadwaj, A., El Sawy, O., Pavlou, P., & Venkatraman, N. (2013). Digital business strategy: Toward a next generation of insights. *MIS Quarterly*, 37(2), 471–482. <https://doi.org/10.25300/MISQ/2013/37:2.3>
- Blank, I. A. (2004). *Enterprise financial security management*. Nika-Tsentr, Elha.
- Brynjolfsson, E., & McAfee, A. (2014). *The second machine age: Work, progress, and prosperity in a time of brilliant technologies*. W. W. Norton & Company.
- Kozachenko, H. V., Ponamarov, V. P., & Liashenko, O. M. (2003). *Economic security of the enterprise: Essence and mechanism of providing*. Libra.
- Pasinovych, I., & Hutak, V. (2023). Financial security as a component of economic and corporate security: Theoretical aspect. *Economy and Society*, 58. <https://doi.org/10.32782/2524-0072/2023-58-24>
- Rudnichenko, Y., Yaremchuk, O., Hayduk, O., & Petyak, A. (2024). Economic security of an enterprise: Theoretical foundations and modern perspective. *Development Service Industry Management*, 4, 316–320. [https://doi.org/10.31891/dsim-2024-8\(47\)](https://doi.org/10.31891/dsim-2024-8(47))
- Tulchynska, S., Solosich, O., & Chornii, V. (2021). The influence of digitalization of management processes on the economic security system of the enterprise. *Investytsiyi: Praktyka ta Dosvid*, 9, 54–58. <https://doi.org/10.32702/2306-6814.2021.9.54>
- Vasylytsiv, T. H., Voloshyn, V. I., Bojkevych, O. R., & Karkavchuk, V. V. (2012). *Financial and economic security of Ukraine: Strategies and mechanisms to ensure*. Aral.
- Vial, G. (2019). Understanding digital transformation: A review and a research agenda. *Journal of Strategic Information Systems*, 28(2), 118–144. <https://doi.org/10.1016/j.jsis.2019.01.003>
- Westerman, G., Bonnet, D., & McAfee, A. (2014). *Leading digital: Turning technology into business transformation*. Harvard Business Review Press.
- Zhadko, K. S., & Samoilenko, D. M. (2020). Economic security of enterprises in the conditions of digital technologies and the pandemic. *Tsentrlnoukrainskyi Naukovyi Visnyk. Ekonomichni Nauky*, 5(38), 170–176. [https://doi.org/10.32515/2663-1636.2020.5\(38\).170-176](https://doi.org/10.32515/2663-1636.2020.5(38).170-176)
- Zubko, T. L. (2022). Methods of assessing the country's economic security. *Derzhava ta Rehiony. Seriya: Ekonomika ta Pidpryemnytstvo*, 2(125), 18–23. <https://doi.org/10.32840/1814-1161/2022-2-3>
- Zybareva, O. V., & Burachok, Ya. Ye. (2025). Economic security of Ukrainian enterprises in the context of sustainable development: Current state, factors, and ways of strengthening. *Problems of Modern Transformations. Series: Economics and Management*, 18, 4–10. <https://doi.org/10.54929/2786-5738-2025-18-04-10>