

Khadzhyanova O. V., DSc. (Economics), professor
Mykolas Romeris University
Vilnius, Lithuania

DOI: <https://doi.org/10.30525/978-9934-26-194-7-19>

CORPORATE MODELS OF DIGITAL TRANSFORMATION OF ECONOMIC SECURITY SYSTEM

The aim of the study is to develop an organizational model of digitalization of business processes of enterprises in the stage of digital transformation, ensuring economic security. Innovative directed solutions involve large-scale technical re-equipment, rethinking the methods of making managerial decisions, improvement and optimization of the organizational structure and personnel policy, so the issue of ensuring the economic security of companies in these conditions became especially relevant.

The specifics of the changes associated with the digitalization of organizational models, transforms the company management system [1]. Most significant digital changes affect the area of ensuring economic security, since the high openness of companies to the external environment entails the emergence of a number of threats and risks for their activities.

The sustainability of companies is determined by the complex impact factors of the internal and external environment and their optimal combination [2]. For ensuring the sustainable development of companies is necessary not only improvement and adaptation to the conditions of digitalization of methodological organization management tools, but also providing economic business entity security.

The intensive development and spread of digital technologies in recent years has significantly changed the face of key sectors of the economy and social sphere. More and more organizations are seeking to move business processes into the digital environment, thereby significantly reducing transaction costs and significantly increasing economic activity [3]. The Internet is forming a giant, virtually barrier-free, market with truly global competition and very high dynamics of all its elements (companies, products and services, consumers).

Digital transformation is qualitative change in business processes and business models, primarily arising within digital platforms, and significant socio-economic effects from their implementation. Digital transformation is not only the introduction of digital technologies, but also the transformation of many horizontal and vertical business processes, optimization of operational procedures, changing established models and formats of interaction between participants in value chains.

New technological solutions require complementary investments in the improvement of organizational practices, the development of employee competencies, the culture of working with data and digital solutions (Table 1).

Digitalization should provide the market with modern technological solutions, using which the company will provide itself with an advantage in the rate of reducing specific operating and investment costs, optimize innovative development, infrastructure maintaining and the structure of technological process management. Analyzing numerous works devoted to this issue [1–10], and pilot digitalization projects, in the activities of modern companies, it can be identified several main areas that will be «digitized» and a description for them were give (Table 2).

**Positive effects, challenges and threats
to businesses from digitalization**

Positive effects	<p>accelerated automation of production processes; reduction of the production cycle; formation of a new type of value chain; improving the quality of goods and increasing their diversity and individuality; expansion of product sales channels; opportunity for access to world markets, development of new leading and breakthrough markets for goods and services; reduction of risks in management and leveling of incomplete information in decision-making; reduction of paperwork, reduction of errors in working with documents; decentralization of the decision-making process; improving management efficiency; reduction and elimination of jobs; increase labor productivity; reduction of production costs; increasing the level of profitability; opportunities to strengthen cooperation between enterprises and research organizations to implement innovations; ensuring transparency, simplicity and efficiency of interaction with the authorities.</p>
Challenges and threats	<p>the possibility of concentrating power in the market and strengthening monopolies; strengthening the level of competition, reducing entry barriers; capture of new markets by transnational industrial corporations; growing dependence on leading companies in the field of digital technologies; problems of lack of software developers and IT specialists, which in the future may lead to increased costs for their work; the threat of weakening the economic security of industrial enterprises; insufficient level of formation of relevant institutions; lack of financial resources, high interest rates on loans; the emergence of more substitutes, the growth of consumer power; the cumulative effect of digitization may be weaker than expected</p>

Source: compiled by the author based on [5; 9; 10]

Table 2

Directions of digitalization of a modern company

Process	Characteristic
Analysis of data on the operating modes of the enterprise, consumption volumes, in real time	Building a predictive model of the behavior of market entities
	Ensuring prompt response to any malfunctions and accidents
	Predictive analytics
	Ensuring fair value for services
Logic of control processes	Optimization of the organizational structure of the company
	Create a smart configuration
	Management of equipment operating modes due to artificial intelligence, without human intervention
Processes unlocking the potential of the digital network	Identify potential patterns based on comprehensive data analysis
	Data Analytics
	Sales of services to consumers on an energy service basis due to energy savings
	Tariff menu
	Prosumer: the consumer consumes, produces and stores resources
	Smart Homes (Energy Efficiency Management)
	Internet of Things technologies (digital gauges, sensors and communications)
	Connecting consumers on the principle of plug and play
	Using «smart» contracts for settlements
	Analytical services for consumers
Consumer targeting based on socioeconomic data	

Source: compiled by the author based on [4; 5; 6; 7; 8; 9; 10]

The digital transformation is based on the improvement of the unified technical policy of the company, taking into account the necessary changes in technological and corporate processes, and the development of new standards. An organizational model for the digitalization of the company's business processes was proposed, ensuring its economic security, which involved changing the main tasks, principles and effects of activity.

The model tools justify the need for the transition of modern companies to risk-based management based on the introduction of digital technologies and the analysis of a large amount of data, which will lead to the implementation of the main goal of digitalization – equipping the market with modern technological solutions, using which the company will provide itself with an advantage in the rate of decrease in specific operating and investment costs, optimizes development, infrastructure maintenance and process control structure. The above procedures should be provided by a competent management team capable of effectively solving a set of tasks. The complex of solving managerial problems consists of four elements: identification of problems; development and adoption of management decisions; execution and performance improvement. Procedure for making managerial decisions in the context of digitalization is complicated by the presence of uncertainty in terms of the impact of digital tools on current processes, the conservative views of managers and a certain «fear of change».

Based on the analysis of structural industry changes, it is proposed organizational model of digitalization of business processes of the company ensuring its economic security, distinguished by justification the need to switch to risk-based management, which allows ensure the formation of a fundamentally new infrastructure in order to implementation of an accessible, efficient and flexible interaction process between all interested market participants with minimal transaction costs. In the course of a comprehensive analysis of threats to sustainable development modern companies substantiated and classified the key risks, a distinctive feature of which is the allocation of typification sustainability of companies as a tool to ensure their economic security. Taking into account the proposed classification allows us to formulate areas of localization of the

negative impact of risk events on keybusiness process performance and sustainability companies.

References:

1. Okewu E, Misra S, Maskeliūnas R, Damaševičius R, Fernandez-Sanz L. Optimizing green computing awareness for environmental sustainability and economic security as a stochastic optimization problem. *Sustainability*. 2017. Oct;9(10):1857.
2. Ozili P.K. Impact of digital finance on financial inclusion and stability. *Borsa Istanbul Review*. 2018 Dec 1;18(4):329–40.
3. Lyons A.C., Grable J.E., Joo S.H. A cross-country analysis of population aging and financial security. *The Journal of the Economics of Ageing*. 2018 Nov 1;12:96–117.
4. Lambert T., Liebau D., Roosenboom P. Security token offerings. *Small Business Economics*. 2021 Sep 12:1–27.
5. Verheggen H. Corporate Strategies for Blockchain-Based Solutions. *InDisintermediation Economics 2021* (pp. 47–67). Palgrave Macmillan, Cham.
6. Jelovac D., Ljubojević Č., Ljubojević L. HPC in business: the impact of corporate digital responsibility on building digital trust and responsible corporate digital governance. *Digital Policy, Regulation and Governance*. 2021 Jun 21.
7. Oncioiu I., Popescu D.M., Anghel E., Petrescu A.G., Bîlcan F.R., Petrescu M. Online Company Reputation – A Thorny Problem for Optimizing Corporate Sustainability. *Sustainability*. 2020 Jan;12(14):5547.
8. Mahanti R. Introduction to Governance, Corporate Governance, and Compliance. *InData Governance and Compliance 2021* (pp. 1–7). Springer, Singapore.
9. Epstein M.J. Adapting for Digital Survival. *Strategic Finance*. 2018 Feb 1;99(8):26–33.
10. Grove H., Clouse M., Schaffner L.G. Digitalization impacts on corporate governance. *Journal of governance & regulation*. 2018(7, Iss. 4): 51–63.

This research is/was funded by the European Social Fund under the No 09.3.3-LMT-K-712-23-0211 «Transformation of the economic security system of enterprises in the process of digitalization» measure.