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INFORMATION SYSTEMS AND TECHNOLOGIES IN THE CONTEXT OF BUSINESS DIGITAL TRANSFORMATION: TRENDS AND DEVELOPMENT PROSPECTS

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Abstract. *The article examines the role of information systems in the context of business digital transformation and analyzes current trends in the development of information technologies. Their impact on improving management efficiency, business process automation, managerial decision-making support, and the development of competitive advantages is identified. The study also investigates the influence of digital technologies on the implementation of core management functions.*

Keywords: *information systems; digital transformation; information technologies; artificial intelligence; Big Data; Internet of Things (IoT); cloud technologies; cybersecurity; management; business processes.*

The article examines the role of information systems and technologies in the context of digital business transformation and identifies the key trends in their development. The purpose of the study is to investigate the role of information systems in ensuring effective business management, analyse current information technology trends, and determine their impact on management functions, business process efficiency and the formation of competitive advantages. The study focuses on the application of cloud computing, artificial intelligence, Big Data, the Internet of Things and cybersecurity technologies in the business environment.

The research results demonstrate that modern information systems have evolved from supporting operational activities into integrated, intelligent and interactive management tools. Their implementation contributes to the integration and automation of business processes, reduction of operating costs, improvement of information transparency, enhancement of managerial decision-making and greater adaptability of enterprises to changes in the business environment. It is established that the greatest managerial effect is achieved through the integrated use of digital technologies within a unified digital ecosystem. The scientific novelty of the study consists in systematizing current trends in information technology development according to their impact on the main management functions; improving the methodological approach to assessing the role of information systems by distinguishing their strategic, operational and analytical functions; and further developing the concept of data-driven enterprise management, in which data are regarded as a strategic resource and integrated technologies form the basis of digital ecosystems.

The practical significance of the results lies in their applicability to the development of digital transformation strategies, improvement of business processes and enhancement of managerial decision-making. The study concludes that successful digital transformation

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requires not only the adoption of individual technologies but also their comprehensive integration, appropriate cybersecurity measures and the development of employees' digital competencies.

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