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MODELING THE PROCESS OF SELECTING INFORMATION TECHNOLOGIES TO IMPROVE ENTERPRISE MANAGEMENT EFFICIENCY

The rapid expansion of digital technologies has significantly transformed approaches to enterprise management and strategic decision-making. Under conditions of increasing market uncertainty and technological complexity, enterprises face the challenge of selecting information technologies that can ensure operational efficiency, organizational flexibility, and sustainable competitive advantages. The study focuses on the development of a structured approach to modeling the process of IT selection within enterprise management systems.

The research aims to substantiate methodological principles and develop a practical model for supporting managerial decisions regarding the implementation of information technologies. The methodological framework combines system analysis, comparative assessment, expert evaluation techniques, multi-criteria decision-making methods, and elements of economic-mathematical modeling. The study examines current trends in enterprise digitalization, including the implementation of ERP, CRM, Business Intelligence systems, cloud computing technologies, and digital process automation tools.

The paper identifies the main determinants influencing the effectiveness of IT adoption, particularly technological compatibility, implementation costs, scalability, cybersecurity requirements, investment attractiveness, and strategic alignment with organizational objectives. Considerable attention is devoted to the analytical capabilities of Business Intelligence systems as instruments for improving the quality of managerial decisions and reducing risks associated with digital transformation.

As a result, the study proposes a multi-stage decision-making model that integrates organizational needs assessment, identification of technological alternatives, criteria weighting, scenario analysis, and evaluation of implementation risks. The proposed model enables enterprises to select IT solutions more consistently and rationally under conditions of uncertainty and resource constraints. The practical value of the research lies in the possibility of adapting the proposed approach to enterprises of different industries and scales, contributing to improved management efficiency and long-term digital development.

Keywords: information technologies, modeling, ERP systems, CRM, business analytics, enterprise management, digital transformation, management efficiency, multi-criteria analysis, cloud technologies.

