THE ROLE OF CORPORATE MANAGEMENT AND INFORMATION SYSTEMS IN DIGITAL TRANSFORMATION IN THE ECONOMY

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Annotation:

This article comprehensively analyzes the strategic importance of information and communication technologies, information systems and software complexes in the activities of business entities in the conditions of the modern economy. The study scientifically substantiates the institutional foundations of the digital economy, automated management systems, databases, information security and the impact of corporate management programs (ERP, CRM, SCM) on management efficiency and competitiveness.

The role of the digitalization of economic processes, the introduction of e-government and e-commerce systems, and the national digital transformation strategy in economic growth in Uzbekistan is also analyzed. The results of the study substantiate the priority of the information-complex approach to economic management and form scientific and practical conclusions on the development of organizational and technical infrastructure.

Keywords: Information systems, information technologies, software, economic processes, digital economy, database, information security, automation, ERP system, e-government, e-commerce, economic management.

Introduction

In the 21st century, the sustainable development of the economy is in many respects directly dependent on the level of information and communication technologies (ICT), and the activities of modern enterprises, organizations, and government bodies are based on the rapid collection of information, processing, analysis, and sound decision-making without an integrated information approach is unthinkable. In the digital economy, software, corporate management systems, and databases serve to automate economic processes, reduce costs, and make rational use of resources. (ERP, CRM, SCM) and databases enable the automation of economic processes, cost reduction, rational use of resources, and increased competitiveness.

The information complex not only serves to collect, model, and analyze economic data, but also simplifies the making of strategic decisions by providing reliable information in real time. At the same time, information security—data backup, cryptographic protection, user authentication, and network security—has become an integral part of corporate and government management.

In Uzbekistan, digital transformation, the "E-Government" system (my.gov.uz), online tax systems, e-commerce platforms, and digital services from banks are helping to make economic processes more transparent and improve the investment climate. At the same time, IoT (Internet of Things), AI-based analytical programs, and Big Data technologies are creating a new phase of increasing economic efficiency. Large enterprises are actively using automated management systems, while small businesses are using online accounting software. Therefore, an information-integrated approach and corporate management systems are a strategically critical factor in ensuring efficiency, competitiveness, and innovative development in the digital economy.

Level of exploration

The role of corporate governance and information systems in digital transformation is critical for today's global and national economies, as digital

technologies enable companies to boost efficiency, ensure transparency, and make rapid strategic decisions. From this perspective, foreign research by Sun and Guo examines the impact of digital technologies, particularly AI and Big Data, on increasing management transparency and improving environmental and social reporting, Jewer and Van der Meulen analyze the need to redistribute organizational structures and decision-making authority across the entire corporation during digital transformation. Atmane scientifically examines the impact of information systems on the effectiveness of strategic decisions. Local researchers Xudoyberganov and Hamroqulov analyzed the issues of enhancing corporate governance effectiveness through digital infrastructure and electronic services in the context of Uzbekistan. At the same time, the sources clearly demonstrate the scientific and practical significance of corporate governance and information systems in digital transformation.

Methodology

In this study, several research approaches were combined to scientifically determine the role of corporate governance and information systems in digital transformation. First, through an analytical method, theoretical developments in foreign and domestic sources were analyzed to identify the relationship between digital transformation and management processes. Using the comparative method, the experiences of various countries were compared, including practical approaches to digital infrastructure and information-complex implementation. At the same time, practical initiatives in Uzbekistan, such as “Electronic Government,” online tax, and digital banking services, were observed, and their impact on corporate governance effectiveness was assessed using empirical methods.

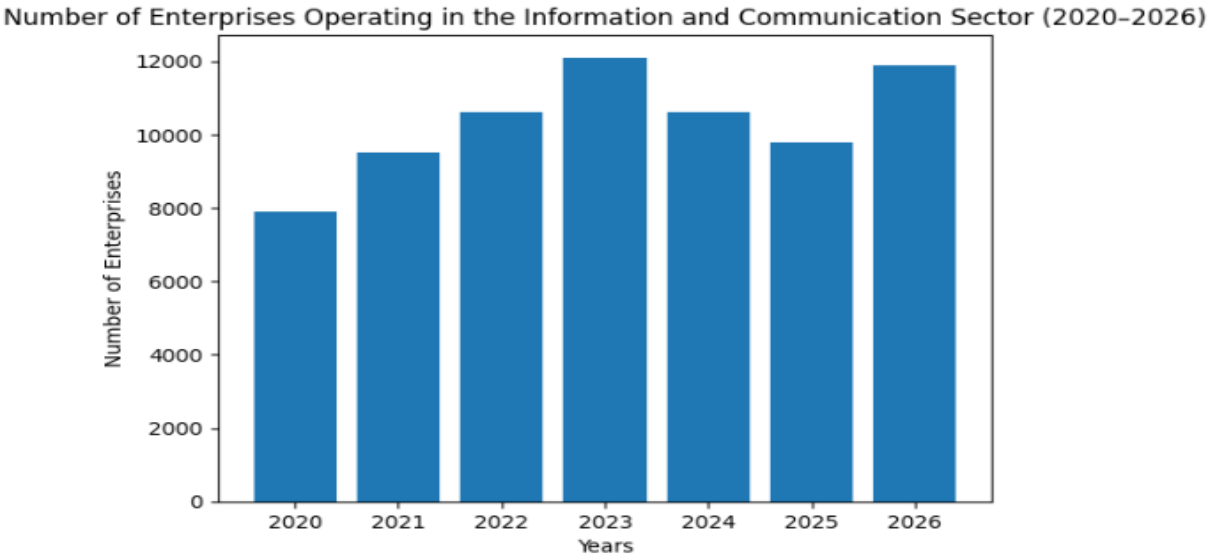
To ensure the scientific robustness of the study, a systematic approach was employed to examine the integration of information systems into organizational structure, processes, and decision-making mechanisms. Additionally, the effectiveness and economic impact of digital transformation were determined based

on data from ERP, CRM, and SCM systems using statistical and visual analysis methods.

Analysis and Results

Digital transformation is emerging as a key factor in fundamentally changing corporate governance processes and increasing the speed and efficiency of decision-making. As evidenced by Uzbekistan's experience, the country's management, industry, and service sectors are to be fully digitized in accordance with Presidential Decree PF-6079 of October 5, 2020, the tasks of automating business processes and effectively using information systems were set. As a practical manifestation of this strategy, PQ-4699 (May 4, 2020), as well as PQ-3832 (July 3, 2018) and PQ-3895 (August 14, 2018) established the necessary platforms for modernizing the information technology infrastructure and transitioning enterprises to digital management systems. According to recent analyses of Uzbekistan's digital transformation under the 'Digital Uzbekistan – 2030' strategy, the expansion of electronic public services and e-government platforms has significantly increased service availability and reduced administrative burdens, with more than 760 services accessible through the unified portal and over 16 million services delivered in the first half of 2025 alone, reflecting measurable improvements in management efficiency and public-sector responsiveness.

Local experience shows that the implementation of ERP, CRM, and SCM systems helps enterprises use resources wisely, reduce costs, and optimize management processes. At the same time, e-Government, online tax, and e-commerce platforms enhance the transparency of public administration and economic processes.



The number of enterprises and organizations in the information and communication sector is demonstrating steady growth between 2020 and 2026 during the digital transformation process (Figure 1). Since 2023, a significant increase has been observed, reflecting the effects of digitizing corporate management systems and implementing information technologies. ERP, CRM, and SCM systems serve to automate business processes, utilize resources efficiently, and optimize costs. At the same time, e-services and online platforms strengthen the role of corporate governance in the digital transformation by streamlining economic processes and accelerating management decisions. The growth trend in the bar chart visually confirms the real-world results of these processes.

Conclusions and recommendations

Digital transformation fundamentally changes corporate management systems, playing a strategic role in increasing the speed and efficiency of decision-making in the economy. Indicators of a sustainable growth trend confirm that ERP, CRM, and SCM systems enable enterprises to use resources efficiently, optimize

costs, and automate management processes. At the same time, electronic platforms and digital services increase the transparency of economic processes, strengthening the quality of management and the level of digital integration. If the efficiency of digital transformation is not sufficiently realized, enterprises face the risk of delayed adaptation to market conditions and reduced competitiveness. Therefore, it is advisable for enterprises to more broadly implement ERP, CRM, and SCM systems, integrate information systems into business processes, and enhance employees' digital skills.

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