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MECHANISMS FOR IMPROVING ORGANISATIONAL MANAGEMENT IN THE CONTEXT OF DIGITAL TRANSFORMATION

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Abstract: Digital transformation is fundamentally changing organisational management by integrating digital technologies, data-driven decision-making, automation, and new organisational capabilities into managerial processes. This article examines the key mechanisms for improving organisational management in the context of digital transformation, focusing on strategic digitalisation, process automation, data-driven management, digital competencies, organisational agility, and the integration of artificial intelligence into managerial decision-making.
Keywords: digital transformation, organisational management, digitalisation, management mechanisms, artificial intelligence, digital competencies, organisational agility, data-driven management.

Introduction. The rapid development of digital technologies has significantly changed the operating environment of modern organisations. Technologies such as artificial intelligence, cloud computing, big data analytics, Internet of Things, blockchain, enterprise information systems, and digital platforms are increasingly integrated into business processes and management systems. As a result, digital transformation can no longer be considered only an information technology issue; it has become an organisational and strategic management challenge.

Bharadwaj et al. argue that the increasing integration of digital technologies into products, processes, services, and business networks requires organisations to reconsider the traditional relationship between information technology and business strategy. Their concept of digital business strategy emphasises the growing integration of technological and business strategies. Similarly, Verhoef et al. distinguish between digitisation, digitalisation, and digital transformation and demonstrate that digital transformation influences organisational structures, business models, capabilities, and performance measurement systems.[1,34-p]

The transformation of management systems is also becoming increasingly relevant in Uzbekistan. Recent research by Yusupova examines the experience and prospects of digitalising public administration and enterprises in Uzbekistan, identifying digital technologies, e-government and information systems as important components of this process. Umidova's research on higher education management in Uzbekistan similarly highlights the role of digital platforms, automated management systems, data analytics and electronic document management in improving administrative efficiency.

Therefore, the purpose of this article is to examine the main mechanisms for improving organisational management under digital transformation and to identify the organisational, technological and human factors that contribute to effective digital management.

Literature Review. Digital transformation has been extensively examined in management, information systems, economics, and organisational studies. One of the important theoretical approaches considers digital transformation as a multidimensional process that changes not only

technological infrastructure but also organisational structures, business models, managerial practices, and employee competencies.[3,87-p]

Bharadwaj et al. proposed the concept of digital business strategy, arguing that digital technologies increasingly affect business strategy, organisational processes, capabilities, products, services, and relationships with external stakeholders. This perspective is particularly important for organisational management because technological investments produce sustainable effects only when they are connected with organisational objectives and managerial processes.

Verhoef et al. identify digital transformation as a process that requires changes in organisational structures, resources, capabilities, growth strategies, and performance metrics. Consequently, management improvement during digital transformation requires a systematic approach rather than the isolated introduction of individual technologies.

Warner and Wäger conceptualise digital transformation as an ongoing process of strategic renewal and emphasise dynamic capabilities, strategic agility, and organisational adaptation. Their research shows that digital transformation affects business models, collaboration approaches and organisational culture.

The human dimension of digital transformation is equally important. Santana and Díaz-Fernández's bibliometric analysis of research on competencies for the artificial intelligence age identifies digital competencies as a major organisational challenge and highlights the need to adapt human resource management practices to technological change. More recent research by Grenda identifies three broad dimensions of digital managerial competencies: technological knowledge, soft skills, and management and leadership skills.[4,98-p]

The development of artificial intelligence has further expanded the role of technology in organisational management. Recent research shows that AI is affecting decision-making, work design, competency management, human resource management, and organisational coordination.

In the Uzbek context, Raxmonova's recent research proposes a multidimensional approach to evaluating organisational management under digital transformation. The proposed framework considers leadership and strategic management, technological infrastructure, decision-making systems, adaptive organisational culture, and human capital. Alimova also examines the influence of digital transformation on enterprise management systems, including artificial intelligence, Big Data, cloud technologies, ERP, CRM, digital platforms, automation and cybersecurity.

Thus, the literature indicates that effective digital transformation requires the simultaneous development of technological infrastructure, management processes, organisational capabilities and human competencies.

Methodology. The study employs a qualitative conceptual research approach based on a systematic analysis of academic literature related to digital transformation and organisational management. The literature review incorporates international peer-reviewed studies as well as recent research conducted by scholars in Uzbekistan.[6,97-p]

The analytical framework is based on five interconnected dimensions of organisational management improvement: strategic digital transformation, process automation, data-driven decision-making, digital managerial competencies, and organisational agility. These dimensions were selected because they represent interconnected elements of organisational transformation rather than isolated technological interventions.

The conceptual analysis also considers the relationship between technological capabilities and organisational capabilities. In this framework, technology is viewed as an enabling mechanism, while organisational strategy, managerial competencies, organisational culture and employee

capabilities determine how effectively digital technologies are translated into management outcomes.

Results and Discussion. Strategic Digital Transformation as a Management Mechanism**.** The first mechanism for improving organisational management is the integration of digital transformation into organisational strategy. Digital technologies should not be introduced independently from strategic objectives. Instead, management should identify organisational problems, determine the processes that require transformation, select appropriate technologies, and establish measurable performance indicators.

Digital transformation therefore involves more than purchasing software or introducing automated systems. It requires organisations to reconsider how value is created, how information flows between departments, how decisions are made, and how customers and other stakeholders interact with the organisation.

Verhoef et al. emphasise that digital transformation has implications for organisational structures and performance measurement. This means that traditional performance indicators may need to be supplemented with digital indicators such as process speed, data quality, digital customer engagement, automation levels, system utilisation and innovation capacity.

For organisational managers, strategic digital transformation can be represented through the following sequence:

Organisational objectives → Digital strategy → Technology selection → Process transformation → Employee adaptation → Performance measurement → Continuous improvement.[7,43-p]

This sequence demonstrates that digital transformation should be treated as a continuous management process rather than a one-time technological project.

Automation of Management Processes. The second mechanism is the automation of routine management processes. Digital technologies allow organisations to automate document processing, reporting, financial operations, customer relationship management, employee administration, inventory control, scheduling and other repetitive activities.

Rasulova's research on digital transformation and automation notes that deeper integration of digital technologies can contribute to more efficient resource utilisation and faster and more accurate decision-making.

Automation can therefore reduce the amount of managerial time spent on repetitive administrative tasks and allow managers to focus more strongly on strategic planning, innovation, employee development and organisational problem-solving.

However, automation also creates new managerial requirements. Managers need to understand how automated systems operate, identify potential errors, monitor data quality, and determine which decisions should remain under human control.

Therefore, the objective of automation should not simply be to reduce human involvement. Instead, the objective should be to establish an effective division of responsibilities between employees and digital systems.

Data-Driven Management and Decision-Making. The third mechanism is the development of data-driven management. Traditional management frequently depends on experience, intuition and periodically collected reports. Digital transformation allows organisations to collect and process information continuously.

Data analytics can provide managers with information about customer behaviour, operational performance, financial indicators, employee productivity, supply chains and market conditions. Consequently, managerial decision-making can become more evidence-based.

The use of data-driven management requires three basic conditions:

1. Reliable data collection;
2. Integrated information systems;
3. Managerial competence in interpreting data.

The third element is particularly important. The availability of large volumes of data does not automatically result in better decisions. Managers need the ability to distinguish relevant information from irrelevant information and to understand the limitations of analytical models.

Recent research on AI and competency management similarly indicates that technological transformation increases the importance of data analysis, decision-making and continuous learning competencies.

Development of Digital Managerial Competencies. Digital transformation changes the requirements imposed on organisational managers. A manager operating in a digital environment needs not only traditional leadership and organisational skills but also an understanding of digital technologies and data.

Grenda's 2026 research identifies technological knowledge, soft skills, and management and leadership skills as three interconnected dimensions of digital managerial competencies. This approach demonstrates that technological competence should not replace traditional management competencies; instead, the two should complement one another.[8,12-p]

Digital managerial competence can include:

- understanding digital technologies;
- data interpretation;
- digital communication;
- strategic thinking;
- change management;
- innovation management;
- cybersecurity awareness;
- ethical use of AI;
- problem-solving;
- leadership of digital teams.

The development of these competencies should become an integral component of organisational human resource management.

For example, employee development programmes can combine technical training with leadership development, project management, digital communication and analytical skills. Such an integrated approach can support organisational adaptation to rapidly changing technologies.

Organisational Agility and Adaptive Management. Digital transformation increases the speed at which organisations must respond to changes in markets, customer expectations and technological conditions. Consequently, organisational agility becomes an important management mechanism.

Warner and Wäger associate digital transformation with strategic agility and continuous organisational renewal. An agile organisation is capable of rapidly adjusting processes, reallocating resources, experimenting with new approaches and responding to changing external conditions.

Adaptive management can be strengthened through:

decentralised decision-making → cross-functional teams → continuous feedback → rapid experimentation → learning from results → process improvement.

This model differs from highly centralised management structures in which decisions move slowly through multiple hierarchical levels.

Nevertheless, organisational agility does not mean the complete elimination of organisational hierarchy. Instead, it involves creating appropriate levels of managerial autonomy while maintaining strategic coordination and accountability.

Artificial Intelligence in Organisational Management. Artificial intelligence is becoming an important component of digital organisational management. AI can support forecasting, customer analysis, human resource management, document processing, risk identification, decision support and knowledge management.

Recent research demonstrates that AI is reshaping organisational work and managerial competencies, particularly through changes in decision-making, role structures and human–AI interaction.

The application of AI in management can be conceptualised at three levels:

Level	Application	Management function
Operational	Automation and workflow systems	Routine process management
Analytical	Data analytics and forecasting	Decision support
Strategic	AI-supported scenario analysis	Strategic planning

However, AI-based management also requires appropriate governance. Managers must consider data quality, cybersecurity, transparency, privacy, accountability and potential algorithmic bias.

Therefore, AI should primarily function as a decision-support mechanism, while organisational responsibility for significant decisions should remain clearly defined.

Digital Governance and Organisational Integration. Another important mechanism is the integration of digital systems across organisational departments. Separate and poorly integrated information systems can create duplicated data, communication delays and inconsistent managerial information.

Research conducted in Uzbekistan indicates that the integration of digital platforms, information systems, electronic document management and data analytics can contribute to improving administrative efficiency and data-driven planning.

Effective digital governance therefore requires:

integrated information systems + clear data governance + cybersecurity + defined responsibilities + employee training.

The integration of these components can improve information exchange between departments and provide managers with a more comprehensive view of organisational performance.

Proposed Framework for Improving Organisational Management. Based on the analysed literature, a conceptual framework for improving organisational management in the context of digital transformation can be proposed.

Digital Management Improvement Framework

1. Strategic level

Digital strategy → organisational objectives → investment priorities.

2. Technological level

Cloud technologies → ERP/CRM → AI → Big Data → automation.

3. Organisational level

Process redesign → organisational agility → cross-functional cooperation → digital governance.

4. Human capital level

Digital competencies → leadership → continuous learning → employee adaptation.

5. Decision-making level

Data collection → data analysis → AI-supported recommendations → managerial decision → performance evaluation.

This framework demonstrates that organisational digital transformation should be understood as an interconnected system. Investment in technology without organisational and human transformation may produce limited results, while managerial reform without adequate technological infrastructure may also restrict the potential benefits of digitalisation.

Implications for Organisations in Uzbekistan. The development of digital organisational management is particularly relevant for Uzbekistan because digitalisation is increasingly being incorporated into public administration, education, business and enterprise management.

Yusupova's research identifies digitalisation of public administration and enterprises as an important development process in Uzbekistan. Umidova's research similarly identifies digital governance, integrated information solutions and data-driven planning as relevant mechanisms for improving institutional management.

For Uzbek organisations, several practical directions can therefore be identified. First, organisations need to develop digital transformation strategies aligned with their specific organisational objectives. Second, management processes should be gradually automated according to their economic and organisational feasibility. Third, managers and employees should receive continuous digital competency training. Fourth, organisations should establish data governance and cybersecurity mechanisms. Finally, artificial intelligence should be introduced through clearly defined managerial use cases accompanied by appropriate human oversight.

Raxmonova's proposed assessment approach, which combines leadership, technological infrastructure, decision-making, adaptive organisational culture and human capital, also demonstrates the need for multidimensional evaluation of digital management capacity.

Conclusion

Digital transformation is changing organisational management by introducing new technologies, management models, decision-making mechanisms and competency requirements. The analysis demonstrates that effective organisational management in a digital environment depends not on technology alone but on the integration of strategic planning, process automation, data-driven decision-making, digital managerial competencies, organisational agility and appropriate digital governance.[10,55-p]

The proposed framework shows that digital transformation should be implemented as a continuous organisational development process. Managers need to combine technological knowledge with leadership, strategic thinking, analytical capabilities and change-management skills, while organisations need to establish appropriate systems for data governance, cybersecurity, employee development and AI-supported decision-making.

For organisations operating in Uzbekistan, the development of integrated digital management systems can provide a framework for improving administrative processes, information exchange and evidence-based decision-making. At the same time, the effectiveness of digital transformation should be evaluated according to organisational context, available resources, employee competencies, technological maturity and measurable management outcomes rather than technology adoption alone.

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