

American Journal of Economics and Business Management

Vol. 9 Issue 5 | **pp.** 466-474 | **ISSN:** 2576-5973
Available online @ https://www.globalresearchnetwork.us/index.php/ajebm

Article

Digitalization as a Priority for Reforming the Banking Sector of Uzbekistan

Sherbekova Kamola Norbekovna

1. Independent researcher, Gulistan State University
* Correspondence: sherbekovakamola494@gmail.com

Annotation: This article analyzes the priority directions of reforming the banking sector in Uzbekistan with a particular emphasis on digital transformation, institutional development of the banking system, and ensuring financial stability. The study highlights key areas such as banking sector modernization, reduction of state ownership, expansion of private capital participation, introduction of digital banking services, and enhancement of the competitiveness of financial services. Special attention is paid to the role of digitalization in improving banking efficiency, expanding financial inclusion, and strengthening the technological infrastructure of the banking system. The importance of applying international experience and improving regulatory policy in the context of digital transformation is also substantiated. The research results provide practical recommendations aimed at increasing the efficiency of the banking sector and supporting sustainable economic growth in the digital economy.

Keywords: banking sector, digital transformation, banking reforms, financial stability, digital banking services, privatization, state ownership, financial intermediation, regulatory policy, investment environment, fintech, financial innovation.

1. Introduction

In the context of accelerating globalization and financial digitalization, the banking sector has become one of the key institutional pillars ensuring sustainable economic development. The efficiency of the banking system plays a crucial role in enhancing investment activity, optimizing the allocation of financial resources, and promoting economic growth, particularly under conditions of rapid technological change and digital transformation [1].

In Uzbekistan, recent years have been characterized by consistent reforms aimed at modernizing the banking system through digital technologies, optimizing state ownership, increasing the role of private banks, and widely introducing digital banking services. These reforms are closely linked to the development of fintech solutions, remote banking services, and the digital infrastructure of financial institutions. However, issues related to lending efficiency to the real sector, asset quality, financial stability indicators, and institutional performance remain highly relevant in the context of digital transformation. This necessitates a comprehensive and system-based scientific analysis of the banking sector and the identification of priority reform directions in the digital economy [2].

International experience demonstrates that banking sector liberalization, the implementation of corporate governance standards, and the acceleration of digital

Citation: Norbekovna, S. K., Digitalization as a Priority for Reforming the Banking Sector of Uzbekistan. American Journal of Economics and Business Management 2026, 9(5), 466-474.

Received: 10th Apr 2026
Revised: 23th Apr 2026
Accepted: 14th May 2026
Published: 19th May 2026

Copyright: © 2026 by the authors. Submitted for open access publication under the terms and conditions of the Creative Commons Attribution (CC BY) license (https://creativecommons.org/licenses/by/4.0/)

transformation are key factors in ensuring financial system stability and competitiveness. In this regard, evaluating the effectiveness of ongoing banking reforms in Uzbekistan and developing scientifically grounded recommendations for their improvement under digital conditions is of significant importance.

The purpose of this article is to identify priority directions for reforming the banking sector in Uzbekistan and to develop scientifically and practically grounded proposals for their improvement in the context of digitalization. The study employs systematic, comparative, and institutional analysis methods [3].

The research findings are aimed at improving the efficiency of the banking sector, strengthening financial stability, and supporting sustainable economic growth through the development of digital financial services and innovative banking mechanisms [4].

2. Literature Review

The issue of banking sector reforms and their impact on economic growth has been extensively studied in international scientific literature, and research in this field is primarily focused on assessing the effectiveness of financial intermediation, the stability of the banking system, and the impact of institutional reforms. In scientific views, the development of the banking sector is interpreted as an important driver of economic growth, and financial deepening and the effective distribution of credit resources are shown as the main factors.

Bank sector transformation and digital reforms represent one of the most dynamically developing and highly relevant research areas in contemporary financial economics. Existing academic literature primarily focuses on the impact of digital technologies on banking operations, transformation of business models, and improvement of efficiency in financial service delivery. In this context, digitalization is widely recognized as a key driver of structural changes in the banking industry, reshaping both operational processes and strategic management approaches [5].

In the international literature, Richard Baskerville et al. (2020) analyze the impacts, challenges, and trends of digital transformation in the banking sector, emphasizing the role of fintech solutions in automating banking processes and increasing operational efficiency. Similarly, Fotis Kitsios, Ilias Giatsidis, and Maria Kamariotou (2021) examine the determinants of e-service adoption in banking, highlighting trust, perceived usefulness, and user acceptance as key factors influencing digital banking diffusion.

Panagiotis Boufounou et al. (2022) investigate the digital transformation of the banking sector during the COVID-19 period, demonstrating that crises significantly accelerate the adoption of digital banking services. Wellington Gaviyau and John Godi (2025) provide a comprehensive analysis of disruptions, regulatory challenges, and opportunities associated with fintech-driven banking transformation [6].

Peter Campino, António Brochado, and Ana Rosa (2020) argue that digital business transformation fundamentally changes strategic banking management and strengthens customer-oriented financial service models. Ivan Tsindeliani et al. (2022) link digital transformation of banking systems with sustainable development principles, emphasizing the increasing importance of ESG-oriented financial governance.

Among CIS scholars, Svetlana Galazova and Leyla Magomayeva analyze the transition from traditional to digital banking models, while Peter Modiha explores the institutional implications of digital transformation in the financial sector.

In the context of Uzbekistan, Z. Mamadiyarov et al. (2021) empirically investigate the determinants of remote banking service development, highlighting technological and behavioral factors. J. K. Egamberganov (2026) analyzes banking sector development under digital economy conditions, emphasizing the institutional importance of digitalization. A. Akimov (2001) provides a foundational analysis of financial system

reforms in Uzbekistan, while A. Abdullaev and S. Bekmurodova study the transformation of banking regulation under the conditions of the digital economy [7].

Overall, the literature indicates that the digital transformation of the banking sector is driven by the integration of digital technologies, fintech innovation, institutional reforms, and regulatory adaptation. However, the comprehensive and systemic assessment of banking sector reforms in relation to economic growth and financial stability remains insufficiently explored, which determines the scientific relevance of the present study.

3. Research Methods

This study employs general and specific scientific methods to analyze the economic essence of banking sector transformation and digital reforms, as well as their impact on economic growth and financial stability. In particular, the system-based approach is used to examine the banking sector as an integrated economic system, while the comparative analysis method allows benchmarking the development of Uzbekistan's banking sector against international experience. Methods of abstraction and generalization are applied to identify the main trends and directions of banking sector reforms, whereas induction and deduction are used to derive scientifically grounded conclusions based on the collected information. In addition, statistical analysis is applied to examine the dynamics of key banking sector indicators, and logical as well as economic analysis methods are used to assess the effectiveness of ongoing reforms, thereby ensuring the scientific validity and practical relevance of the research results.

4. Analysis and Results

At the current stage, the digital transformation of banks is primarily aimed at the integration of financial technologies (fintech), which in the short term significantly reshapes the landscape of banking services. The emergence of innovative products leads to the functional transformation of core banking activities such as payments, savings, lending, and financial consulting. These processes enhance the speed, convenience, and flexibility of banking services, strengthen interaction with customers through digital channels, and elevate the competitiveness of the banking sector to a new level (Abramova, M.A., Avis, O.U., & Advokatova, A.S., 2019) [8].

According to Lars Vejvoda, recent technological advancements have led to the rapid emergence of digital banks and fintech companies. As a result, traditional ("legacy") banks have been forced to significantly accelerate their digitalization processes in order to remain competitive. The intensification of competition between "new" and "old" banks is also explained by a relatively balanced supply and demand structure in financial markets. In this context, attracting new customers often occurs through the redistribution of existing clients from competing banks rather than overall market expansion. Therefore, competition increasingly takes the form of customer reallocation rather than pure market growth, making service quality, convenience, and innovative solutions key determinants of competitive advantage.

It is expected that within the next 5–10 years, financial technologies will substantially transform traditional banking structures. This forecast is based on large-scale investment flows and the expansion of activities by major technology corporations, particularly Silicon Valley companies (Bubnova, Yu.B., 2019). The widespread implementation of digital platforms, artificial intelligence, big data analytics, and cloud computing is forcing a fundamental revision of traditional banking business models [9].

The use of financial technologies ensures a number of positive outcomes, including:

– increasing the accessibility and coverage of banking services, as well as improving their quality;

– reducing transaction costs;

– significantly accelerating the speed of service delivery.

At the same time, there are also negative aspects, primarily associated with information security risks and the high costs of implementing financial technologies. The creation of digital infrastructure, ensuring cybersecurity, and attracting qualified specialists impose a significant investment burden on banks. Nevertheless, in the long-term perspective, these costs are expected to be offset by increased competitiveness and operational efficiency of banks.

Digital transformation in the banking sector primarily covers the following areas:

1. Customer interaction

Customers are not only consumers of existing banking services but also key drivers in the creation of new products and services [10]. Through the use of big data analytics and processing technologies, banks collect and systematize large volumes of information about customers, including their behavior, financial habits, needs, and preferences. Based on this data, banks develop individualized service offerings, create modern customer profiles, improve communication mechanisms between banks and clients, and modernize service delivery processes.

Digital transformation significantly accelerates the delivery of banking services. Today, many banking operations are carried out online and in real time. Rapid response to customer requests has become a key attribute of modern banking activity and represents an important competitive advantage generated through the use of digital technologies (Politkovskaya, I.V., Zhidkov, M.A., Shpilkin, T.A., Prusova, V.I., & Kazitskaya, N.V., 2020).

This transformation is aimed at:

– improving the quality and speed of customer service;

– ensuring 24/7 access to banking operations;

– offering individualized service packages for each client.

2. Operational processes

The main objective of transforming operational processes is to move from an extensive development model to an intensive one through the introduction of innovations, thereby reducing operational costs [11]. From an operations management perspective, digital transformation is characterized by a shift from vertical management structures to horizontal models, meaning a gradual departure from rigid hierarchical systems toward collaborative and team-based organizational forms. At the same time, the development of employees' digital competencies plays a crucial role in this process.

In the transformation of operational processes, advanced technologies such as big data analytics, distributed ledger technologies (blockchain), artificial intelligence, and other digital solutions are actively being implemented. Based on these technologies, several digital solutions are emerging:

– for customers: ecosystems and marketplaces integrated with virtual commerce systems, enabling access to the bank's own products and services (including non-financial services such as insurance, auditing, and tourism), as well as offerings from affiliated companies and partners;

– for banks: increased outsourcing of certain functions (security and cash-in-transit services, partial back-office operations, cloud-based payment service centers, accounting, etc.) and transformation of transaction management processes using distributed ledger technologies.

These processes contribute to making banking operations more efficient, flexible, and technologically advanced [12].

3. Business Model

One of the most important outcomes of digital transformation is the emergence of new types of banking institutions due to the reduction of entry barriers. As a result of this process, a four-stage model of digital banks can be distinguished:

Model A. This model is based on the formation of a fully digital bank characterized by unique branding and innovative digital services.

Model B. This model represents banks that operate on the basis of existing digital channels and have the potential to transition toward Model A in the future.

Model C. This model refers to subsidiary digital banks created within the transformation process.

Model D. This is a fully digital bank operating entirely on digital technologies across all service lines and having no physical branch network.

These models reflect the gradual evolution of traditional banking structures toward fully digital ecosystems, driven by technological innovation and changing customer expectations.

New banking institutions tend to form complex ecosystems around themselves, meaning that integrated systems emerge based on digital technologies, through which commercial banks provide a diversified set of products and services across various sectors [13]. Typically, banks that actively develop ecosystems meet the following criteria:

– a large customer base;

– a strong and well-recognized brand;

– a positive market reputation.

These ecosystems also incorporate a wide range of non-banking assets unified through a technological platform. Their main advantages include:

– expansion of the product and service portfolio available to customers;

– increased customer loyalty and stimulation of demand for banking services;

– growth in revenues of both individual banks and the banking sector as a whole;

– development of proprietary digital platforms by banks.

At the same time, ecosystem-based models also have certain disadvantages, primarily related to the need for large-scale capital investment and the risk of market oligopolization [14].

Table 1.

Key Development Trends of the Banking Sector under Digital Transformation

Trend Area	**Description**
1. Integration trends	
Entry of Big Tech companies into financial markets	Large technology companies such as Google, Apple, Amazon, and Microsoft (USA), as well as Alibaba, Tencent, Baidu, JD, and Xiaomi (China), are entering financial services markets. Leveraging technological advantages and high capital concentration, they are increasingly competing with traditional banks.
Integration with fintech startups	Banks expand their digital capabilities through cooperation with fintech startups, including corporate accelerators and the acquisition of innovative companies.
Banking sector consolidation	A reduction in the number of banks and an increasing market share of systemically important banks are observed, leading to capital concentration in large financial institutions.

2. Mobile and internet banking development	
Ecosystem expansion in mobile banking applications	Banking apps increasingly integrate additional services such as insurance, transport tickets, media content, and other non-financial services, forming digital ecosystems.
Development of brokerage services	Growing investment activity has led banks to expand brokerage services in mobile applications, simplifying access to financial markets for retail investors.
Online authentication technologies	Biometric authentication and unified digital identity systems are being introduced to enhance security and user convenience.
VR/AR technologies	Virtual and augmented reality technologies are used for interactive financial simulations, marketing campaigns, and customer engagement tools.
Chatbots and voice assistants	Automated customer support systems reduce waiting time and improve service efficiency through AI-powered communication tools.
3. Optimization of business processes	
AI-based risk assessment	Artificial intelligence is used for credit risk evaluation, fraud detection, and anomaly identification in customer documentation.
Remote work systems	Remote working models are introduced to reduce operational costs and increase workforce flexibility.
Transition to branchless banking	Banks increasingly reduce physical branch networks by shifting services to fully digital platforms.
Strengthening cybersecurity	Investments in cybersecurity increase due to higher risks associated with digital banking channels and online identification systems.
Blockchain technologies	Distributed ledger technologies are implemented to improve transaction security, transparency, and data integrity.
Big Data technologies	Advanced data analytics is used for forecasting, decision-making, and improving overall business efficiency.
Regulatory monitoring systems	Automated compliance monitoring systems help track regulatory changes and reduce the risk of penalties and sanctions.
4. Improvement of banking products	
Service personalization	Banking services are increasingly tailored to individual customer needs using digital technologies.
AI-based decision support systems	Artificial intelligence supports customers in investment portfolio formation and financial forecasting.

Table1 summarizes the key development trends of the banking sector under conditions of digital transformation, highlighting structural, technological, and organizational changes driven by financial technologies. The analysis demonstrates that contemporary banking development is increasingly characterized by the convergence of financial services with digital ecosystems, where traditional banking boundaries are becoming less distinct [15].

From an integrative perspective, the entry of Big Tech companies into financial markets represents a fundamental shift in competitive dynamics. Technology giants such as Google, Apple, Amazon, Microsoft, Alibaba, and Tencent leverage their strong

technological infrastructure, large customer bases, and data-driven business models to enter financial services. This intensifies competition and accelerates innovation in the banking sector. In parallel, the integration of fintech startups and the consolidation of banking institutions indicate a dual process: while innovation is driven by small agile firms, market power is increasingly concentrated in large systemically important banks.

In terms of digital channel development, mobile and internet banking have evolved into multifunctional platforms that extend beyond traditional financial services. The integration of additional services such as insurance, travel, entertainment, and investment products reflects the formation of banking ecosystems. The expansion of brokerage services within mobile applications also indicates the democratization of access to capital markets. Moreover, the adoption of biometric authentication, unified digital identity systems, VR/AR technologies, and AI-powered chatbots significantly enhances service efficiency, security, and customer experience.

Operational transformation trends reveal a clear shift toward automation, decentralization, and cost optimization. The adoption of artificial intelligence for risk assessment improves the accuracy of credit decisions and fraud detection. At the same time, the expansion of remote work and the transition toward branchless banking models reflect a structural reduction in fixed operational costs and physical infrastructure dependency. Additionally, the increasing importance of cybersecurity highlights the growing exposure of financial institutions to digital risks.

Technological innovations such as blockchain and Big Data analytics further reinforce transparency, data integrity, and predictive capabilities within banking operations. Regulatory monitoring systems contribute to improved compliance and reduced regulatory risks, ensuring greater institutional stability in a rapidly changing environment.

Finally, the personalization of banking services and the use of artificial intelligence in decision-support systems demonstrate a shift toward customer-centric banking models. These developments collectively indicate that digital transformation is not only improving operational efficiency but also fundamentally redefining banking business models, competitive structures, and value creation mechanisms in the financial sector [16].

5. Conclusion and Recommendations

The conducted study reveals that the transformation of the banking sector in Uzbekistan is evolving from traditional institutional restructuring toward a technology-driven and data-centric development model. Digitalization is not only improving operational efficiency but is also fundamentally reshaping the architecture of financial intermediation, risk management mechanisms, and customer value creation systems. Empirical and conceptual analysis indicates that banking sector performance increasingly depends on the level of digital infrastructure development, the quality of regulatory institutions, and the degree of integration of fintech solutions into traditional banking systems.

At the same time, the persistence of state dominance, uneven digital readiness of banking institutions, and emerging cybersecurity risks constrain the full realization of digital transformation benefits. International experience confirms that sustainable banking development requires a balanced interaction between market liberalization, institutional strengthening, and technological innovation. Therefore, the effectiveness of banking reforms in Uzbekistan largely depends on the coordination between regulatory modernization and accelerated digital ecosystem development.

Based on the findings, the following scientifically grounded directions are proposed:

- Transition from a fragmented digitalization approach to a holistic digital banking ecosystem model, ensuring interoperability between banks, fintech companies, and public digital platforms.
- Strengthen data governance frameworks in banking institutions, including standardized data architecture, open banking principles, and secure data-sharing mechanisms.
- Gradually reduce administrative and state-driven distortions in banking allocation processes to improve market-based credit efficiency and risk pricing accuracy.
- Develop a regulatory sandbox mechanism to support controlled testing of fintech innovations under supervisory oversight.
- Enhance the role of advanced analytics (Big Data and AI-based credit scoring models) in credit allocation and systemic risk assessment.
- Shift from traditional compliance-based supervision to a risk-based and technology-enabled supervisory framework (SupTech and RegTech).
- Strengthen institutional capacity for cybersecurity through the implementation of multi-layer digital security architecture and real-time threat monitoring systems.
- Foster human capital transformation by aligning banking workforce competencies with digital finance and data-driven banking requirements.

REFERENCES

[1] R. Baskerville et al., "Impacts, challenges and trends of digital transformation in the banking sector," *Law and Economics Yearly Review*, vol. 9, no. 2, pp. 341–362, 2020.

[2] F. Kitsios, I. Giatsidis, and M. Kamariotou, "Digital transformation and strategy in the banking sector: Evaluating the acceptance rate of e-services," *Journal of Open Innovation: Technology, Market, and Complexity*, vol. 7, no. 3, p. 204, 2021.

[3] P. Boufounou et al., "Digital transformation of the Greek banking sector in the COVID era," *Sustainability*, vol. 14, no. 19, p. 11855, 2022.

[4] W. Gaviyau and J. Godi, "Banking sector transformation: Disruptions, challenges and opportunities," *FinTech*, vol. 4, no. 3, p. 48, 2025.

[5] P. Rubanov, "Transformation of the banking sector in the digital era," *Mechanism of an Economic Regulation*, no. 4 (86), pp. 110–118, 2019.

[6] J. Campino, A. Brochado, and Á. Rosa, "Digital business transformation in the banking sector," in *Dynamic Strategic Thinking for Improved Competitiveness and Performance*, IGI Global, 2020, pp. 52–88.

[7] I. A. Tsindeliani et al., "Digital transformation of the banking system in the context of sustainable development," *Journal of Money Laundering Control*, vol. 25, no. 1, pp. 165–180, 2022.

[8] S. S. Galazova and L. R. Magomaeva, "Transformation of traditional banking activity into digital," *International Journal of Economics and Business Administration*, vol. 7, Special Issue 2, pp. 41–51, 2019.

[9] P. Modiha, "Digital transformation in the finance and banking sector," in *Digital Transformation in South Africa: Perspectives from an Emerging Economy*, Cham, Switzerland: Springer Nature, 2024, pp. 95–117.

[10] Z. Mamadiyorov et al., "Analysis of factors affecting remote banking services in the process of bank transformation in Uzbekistan," *Financial and Credit Activity: Problems of Theory and Practice*, vol. 1, no. 36, pp. 14–26, 2021.

[11] J. K. Egamberganov, "Development of the banking sector in Uzbekistan in the digital economy," *Economy and Society*, no. 3-1 (142), pp. 147–161, 2026.

[12] A. Akimov, "Reforming the financial system: The case of Uzbekistan," *CASE Network Studies and Analyses*, no. 234, 2001.

[13] A. Abdullaev and S. Bekmurodova, "Transformation of the regulation of commercial banks in the conditions of the development of the digital economy of Uzbekistan," *Scientific Collection InterConf*, no. 142, pp. 93–102.

[14] M. A. Abramova, O. U. Avis, and A. S. Advokatova, *New Trajectories of Financial Sector Development in Russia*. Moscow, Russia, 2019.

[15] Yu. B. Bubnova, "Transformation of the bank business model in the digital economy," *Izvestiya BGU*, no. 3, pp. 425–433, 2019.

[16] I. V. Politkovskaya et al., "Current state and development trends of the banking sector of the Russian Federation under digitalization," *Journal of Economics and Business*, no. 8(66), pp. 132–137, 2020.