



## **INCREASING FINANCIAL STABILITY THROUGH THE INTRODUCTION OF DIGITAL TECHNOLOGIES IN COMMERCIAL BANKS**

Dilnoza Xaitboyeva  
Tashkent University of Applied Sciences,  
Assistent Gavhar Str. 1, Tashkent 100149, Uzbekistan  
ORCID: 0009-0006-1068-3943,  
dilnoza.dilnoza.1991@gmail.com

<b>ABSTRACT</b>	<b>KEYWORDS</b>
<p>This article analyzes the issues of ensuring financial stability in commercial banks through the implementation of digital technologies. The economic efficiency of the digitization process, its impact on the banking sector, and practical results are discussed using the example of commercial banks in Uzbekistan. Additionally, proposals are developed to address the existing problems. The article serves as a tool for further study and improvement of digital transformation processes in the banking sector.</p>	<p>Digital technologies, commercial banks, financial stability, digital transformation, artificial intelligence, cybersecurity.</p>

### **Introduction**

The rapid development of digital technologies is having a significant impact on all economic sectors, including the banking system. In particular, digitalization processes play a crucial role in ensuring the financial stability of commercial banks. As a result of implementing modern information and communication technologies, the quality of banking services has improved and conveniences have been created for clients. This, in turn, is serving to strengthen the reliability and competitiveness of banks in their operations. Today, digital transformation in the banking system is becoming an important tool not only for automating the service delivery process but also for expanding the financial resource base, managing risks, reducing operational costs, and achieving sustainable development. The development of digital products and services by commercial banks is enabling them to diversify their revenue base, expand their customer base, and optimize internal processes.

This article analyzes the mechanisms for ensuring financial stability through the introduction of digital technologies in commercial banks, their practical significance, existing problems, and promising directions.

### **RESEARCH METHODOLOGY**

The necessity of implementing digital technologies in commercial banks.

The trend of widespread use of digital technologies in the modern economy encourages active reforms in the banking sector. In particular, digitalization plays an important role in the activities of commercial

banks - as a means of improving the quality of services, reducing operating costs, expanding the client base, as well as ensuring financial stability.

Many developed countries around the world have managed to expand the range of financial services and provide 24/7 customer service through the digitalization of the banking system. Innovations such as the emergence of fintech companies, mobile banking, blockchain technologies, artificial intelligence-based services, and contactless payments have become an integral part of banking activities.[5]

In recent years, a number of measures have been implemented in Uzbekistan to digitalize the banking system. In particular, based on the "Digital Uzbekistan - 2030" strategy, modern technologies are being introduced into the activities of commercial banks.[2] Mobile applications, internet banking, electronic payment systems, digital identification, and remote service technologies are becoming important steps in this direction.

Digital technologies serve as a strategic advantage for commercial banks, offering numerous benefits and conveniences. The implementation of digital technologies provides commercial banks with several strategic advantages:

- ✓ Fast and convenient service allows customers to access banking services from any location, at any time.
- ✓ Personalized services - offering suitable products to customers based on their behavior using artificial intelligence.
- ✓ Reducing production costs - cutting expenses by decreasing the workload in branches and implementing automation.
- ✓ Enhancing competitiveness: Banks that provide services with advanced technologies can become market leaders.

Financial stability is the resilience of the banking system to internal and external fluctuations, its ability to fulfill financial obligations on time, conduct profitable operations, and maintain customer confidence.

Digital technologies ensure this stability through the following ways:

- Risk identification and management - real-time monitoring based on technologies.
- Diversified income sources - generating revenue from new services through digital products.
- We can cite rapid adaptation to market conditions as an example of meeting market demands through technological flexibility.

In the modern banking system, digital technologies are becoming the primary means of ensuring financial stability. These technologies not only serve to automate and optimize services but also help expand the bank's financial resource base, as well as identify and minimize risks in advance. The analysis of such technological mechanisms is provided below. Through the internet banking and mobile applications implemented by banks, clients have the opportunity to use services 24/7. This leads to the following advantages:

- The speed and convenience of banking services will increase, leading to a growth in customer flow;
- Remote service reduces the operating costs of banks;
- The bank's resource base will expand through digital deposits and online lending;
- Payments and calculations are carried out automatically, which enhances the efficiency of banking operations.

Through such services, banks expand their operations, increase their user base, and thereby ensure stability. [3]

In recent years, banks have begun working with big data, making decisions based on artificial intelligence (AI), and implementing blockchain technologies. How appropriate is it to use artificial intelligence and make decisions based on it? By analyzing this, financial losses in commercial banks can be prevented and costs can be reduced. Furthermore:

- With the help of Big Data, the financial behavior of clients is analyzed and risk situations are identified in advance;
- Artificial intelligence is being widely utilized in offering tailored services and products to customers, as well as in evaluating credit risks;
- Blockchain technology ensures transparent and secure interbank settlements. These technologies not only simplify banking operations but also serve as a tool for strengthening financial stability.[4]

## ANALYSIS AND RESULTS

Throughout the world, the following financial mechanisms based on digital technologies are currently being launched: Cybersecurity systems are used to protect against fraud and threats. In addition, automated reporting has simplified employees' work and reduced the human factor. The most advantageous aspect is that revenue has increased significantly through targeted customer service, achieved by online marketing and customer segmentation. Furthermore, the production of competitive products has been established through the implementation of technological innovations.

These measures will ensure the financial security of banks and serve to expand their resource base.

In the process of digital transformation, as the quality of services improves, the confidence of clients in the bank also increases. And this:

- ✓ Develops sustainable long-term customer relationships;
- ✓ Attracts more investment, savings, and transactions from customers;
- ✓ Strengthens the internal and external reliability of the bank's activities.

The experience of Uzbekistan's commercial banks in implementing digital technologies. Digitalization processes in the banking and financial system of Uzbekistan have been consistently developing in recent years. In this regard, commercial banks have launched a number of technological innovations, services, and platforms. In this area, the experience of some leading commercial banks, changes in their financial indicators, and existing problems are analyzed.

Using the example of commercial banks implementing digital services, "Ipak Yo'li" Bank has implemented the Digital Bank concept for 2022-2024. That is, through this bank, the possibility of obtaining a loan, opening a deposit, and making payments through a mobile application has been created. According to financial reports, the number of clients using the bank's digital services increased by 1.5 times in 2024.[7]

Taking Hamkor bank as an example, the "Hamkor Mobile 2.0" application was launched at the end of 2023. In addition, a virtual assistant based on AI has been implemented. According to the report of the Central Bank of the Republic of Uzbekistan, the share of digital loans in Hamkor bank is 35% of the total loan portfolio.[6]

Now, if we continue the analysis using Agrobank as an example, the bank operates remote service centers and the "Digital Agrobank" system. Furthermore, online lending services have been established

for agricultural entities. In this process, the review time for loan applications has been reduced from 3 days to 1 day.[8]

The following positive financial changes were observed in banks that have implemented digital technologies (based on the reports of the Central Bank and commercial banks for the end of 2024): [1]

Table 1 Bank’s revenue base through digitization

Indicator	2022 (so‘m)	2024 (so‘m)	Growth (%)
Digital service users	4,2 mln	6,8 mln	+62%
Online lending volume	3,1 trln	5,4 trln	+74%
Volume of digital deposits	1,9 trln	3,3 trln	+73%
Bank profit (average)	280 billion	430 billion	+53%

These figures indicate that through digitalization, banks have expanded their revenue base, increased customer confidence, and reduced costs. Nevertheless, there are some problems in the implementation of digital technologies banks:

- ✓ Insufficient development of technical infrastructure - internet speed and uninterrupted access, especially in remote areas, is a problem.
- ✓ Personnel qualifications - there is a shortage of highly qualified specialists in the field of IT.
- ✓ Low customer digital literacy - some customers don’t know or trust how to use digital services.
- ✓ Cybersecurity threats - the risk of fraud and data leaks - are a pressing issue facing banks.

By addressing these issues, it is possible to further accelerate the digital development of the banking system.

**CONCLUSIONS**

According to the research results, the implementation of digital technologies in commercial banks serves as a crucial factor in enhancing financial stability. Through digital services, banks are improving the quality of their services, reducing operational costs, expanding their customer base, and most importantly - adapting to market demands and competition.

Analysis shows that although certain results have been achieved in the field of digitalization by commercial banks of Uzbekistan, a fully transformed digital banking system has not yet been formed. We need to see the need for further improvement of digital infrastructure and increasing personnel potential.

**Suggestions:**

- Accelerating digital transformation in the banking system - it is necessary to utilize advanced foreign experiences in this regard.
- Development of digital literacy programs for bank employees and clients - organization of seminars, trainings and online courses.
- Strengthening Cybersecurity: Implementing Modern Protection Measures to Ensure the Safety of Digital Services.

- Comprehensive modernization of IT infrastructure - improvement of technical capabilities, especially in regional branches.

- Widespread introduction of artificial intelligence and Big Data technologies - increasing competitiveness by providing personalized customer services.

Thus, the digital transformation of commercial banks is becoming a crucial factor in ensuring financial stability. By consistently pursuing reforms in this direction, banks can evolve into institutions that are not only financially stable but also well-prepared for the digital economy.

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