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Article

# Analysis of The Impact of Digital Transformation in The Banking Sector of Uzbekistan on Financial Security

Gulnora Abdurakhmanova<sup>1</sup>, Nazira Xodjaraxmanova<sup>2</sup>

- 1. DSc in economics, Vice-rector for Research and Innovations, Tashkent State University of Economics, Tashkent, Republic of Uzbekistan
- 2. Master's Student Tashkent State University of Economics, Tashkent, Republic of Uzbekistan
- $\hbox{$^*$ Correspondence: $\underline{g.abdurakhmanova@tsue.uz}$, $\underline{n.khodjarakhmanova@tsue.uz}$}$

Abstract: The article is devoted to the study of changes in banks' financial security after the emergence of new digital products. The aim of the study is to identify how the introduction of digital technologies affects the sustainability of financial processes and asset protection, as well as to examine emerging threats and ways to prevent them. The objectives of the work include analyzing key aspects of digitalization such as process automation, remote services, electronic payments and cybersecurity. The results show that digital innovation improves the availability and quality of financial services but leads to an increase in vulnerabilities such as cyber attacks, phishing and data breaches. It is concluded that improving financial security requires the implementation of comprehensive measures, including the use of advanced protection technologies, regular risk monitoring and the development of cyber defense strategies. An important factor in ensuring security is the improvement of financial literacy of the population, which reduces the probability of financial losses due to user errors. The article emphasizes the importance of customer awareness of potential threats and precautions when using digital banking services. It also offers recommendations for banks to improve protection systems and organize customer training, which will increase the resilience of the banking system in conditions of active digitalization. The findings of the study confirm the need to combine technological and educational approaches to ensure effective protection of financial data and the stability of the system in the long term.

**Keywords:** banking, new digital financial products, anti-money laundering and combating the financing of terrorism (AML/CFT), financial transactions, fraud, cyberattacks.

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# 1. Introduction

Currently, digitalization is developing at a rapid pace, while opening new opportunities and challenges for financial security, especially in developing countries. In recent years, there has been an increase in the popularity of new financial products such as cryptocurrencies and various digital payment systems, creating opportunities for greater financial inclusion. Despite all these pros, a number of other risks emerge, including money laundering and terrorist financing, which emphasizes the need for an in-depth analysis of the impact of digital technologies on financial security [1]. The problem is that new digital banking products used for convenience and speeding up financial transactions become possible tools for committing crimes such as money laundering. For example, the anonymity of transactions in cryptocurrencies and the lack of strict controls in the field of digital assets create many conditions for attackers. This, of course, creates serious challenges for banks, especially in countries with underdeveloped

regulatory and supervisory mechanisms. Existing regulations often fail to keep pace with the rapid development of digitalization, which increases the vulnerability of financial systems [2].

The aim of this article is to prevent potential risks of money laundering and terrorist financing schemes by utilizing new digital ways of conducting monetary transactions. To achieve this goal, key factors affecting the vulnerability of financial systems in developing countries are investigated and recommendations are offered to enhance financial security. This includes developing effective methods for monitoring and analyzing transactions, as well as improving the interaction between government agencies and financial institutions.

The object of the study is the financial systems of developing countries and the subject is the impact of digital banking products on the security of these systems. The theoretical significance of the work lies in the deepened understanding of the relationship between digitalization and risks in the banking sector, which can contribute to the development of new theoretical approaches to the study of financial security in the context of digital transformation. The scientific contribution in this area can help in the formation of concepts that take into account the specifics of emerging markets.

The practical significance of the work lies in the development of recommendations for authorities and financial institutions to improve the mechanisms of control and prevention of financial crime. With the growing number of cyber threats and changes in the financial landscape, such recommendations may be useful to improve the resilience of financial systems and protect the interests of customers.

The hypothesis of the study is that the lack of adequate risk management strategies in a digitized environment significantly increases the likelihood of money laundering and terrorist financing, especially in developing countries with low levels of financial literacy and informal economies. This aspect requires special attention as it can lead to significant economic and social consequences for society as a whole.

Thus, this paper aims to analyze the impact of digital transformation on financial security, identify existing threats and develop practical solutions. This is critical for sustainable economic development of developing countries and requires a comprehensive approach to regulation and control of digital finance.

#### 2. Materials and Methods

Literature Review

Each scientist defines the concept of security in his own way, based on his own view and approach to the issues under study. In particular, Hasan Abulkosimov in his book "Economic Security of the State" emphasizes that security is a multifaceted concept closely related to national development. He emphasizes that any country striving for economic development and prosperity should not overlook the importance of security. By security, Abulkosimov means both political and economic stability, which he believes is the basis for sustainable growth. Security thus becomes the key that ensures the stable development of the state and society as a whole. Abulkosimov emphasizes that economic prosperity should go hand in hand with security measures, as these aspects are interrelated and reinforce each other. Consequently, when modernizing or upgrading any industry, factors that may pose a threat should be carefully analyzed and strategies and mechanisms should be developed to prevent them, thus ensuring stability and protecting national development gains. [3] A number of scholars such as Manokhina [4] have also conducted research on this topic. Jurgens [5], Scissors [6], Klimenko[7] and Bondarenko.

The relevance of the topic of financial and economic security is confirmed by the fact that many scientists and teachers are actively studying this issue, using various approaches and methods of analysis. Studies in this area are primarily concerned with the impact of financial security on the sustainability of economic growth. For example, scientists Bobir Tursunov and Aktam Burkhanov deeply analyzed the issues of financial security and its importance for stable economic growth. In their works, they emphasize

that financial security is an integral element of the state's economic policy, without which it is impossible to achieve sustainable development. Their studies touch upon various aspects, from analyzing threats and challenges to the financial system to developing recommendations for ensuring stability and protecting the country's economic interests. Such a comprehensive approach allows us to consider financial security as a basis that ensures long-term and sustainable development of the economy. [9, 10]

In addition to general issues of economic security, the banking sector attracts considerable interest among researchers, especially given the major changes taking place in this industry both in Uzbekistan and around the world. The banking sector in Uzbekistan is developing at a high rate, which is due to the need to ensure financial security for both private and corporate customers. In this context, Ismailov scholars in their research article have studied in detail the changes and trends in the banking sector of Uzbekistan, including the impact of digitalization on the financial security of banks. They examine in detail the current processes, including legislative and regulatory changes, aimed at improving the performance of banking institutions and ensuring their compliance with modern security requirements. The scholars emphasize that for sustainable development of the banking sector it is necessary to constantly adapt regulations and standards to the current economic conditions and technological innovations associated with digital transformation. The author proposes to make changes to legislative acts related to banking security to create conditions for safe and sustainable growth of the industry that meets global standards. [11]

The issues of financial security of banking institutions and their sustainable economic development also attract the attention of scholars and experts. Topics such as ensuring the stability of banks, their financial soundness and their contribution to economic development have been studied by Mamadiyarov and Berdiyarov. In his work, Berdiyarov studies the liquidity and solvency of commercial banks in the Republic of Uzbekistan, as they are key aspects of banking system stability that require both scientific and practical approach. One of the proposals is to adapt the system of assessment of liquidity and solvency of commercial banks based on the methodology proposed by the International Monetary Fund (IMF) to assess the financial stability of banks. This approach is aimed at strengthening the positions of Uzbek banks in conditions of increased instability and international competition [12]. Mamadiyarov also pays special attention to innovations in FinTech, as they open up new opportunities for the remote organization of banking services, allowing banks to promptly respond to customer requests, reduce costs and increase profits. However, there is a need for quality risk management associated with electronic and remote banking services. The papers also emphasize the importance of transparent online platforms and risk management arising from the adoption of new technologies, which ensures the resilience of the banking ecosystem and reduces potential cybersecurity threats. [13]

# RESEARCH METHODOLOGY

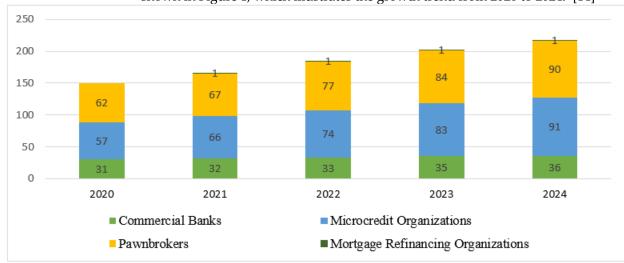
The study focuses on the banking sector of Uzbekistan and is based on the analysis of data covering the last few years. Reports and publications of international organizations, which provide relevant data on the state of financial literacy and cybercrime in the world and in Uzbekistan, were primarily used. FATF (Financial Action Task Force) reports on measures to counter financial crime and cyber threats were used to identify international security trends. These documents provide insight into international standards for combating money laundering and terrorist financing, which is important for analyzing potential threats of digitalization in the banking system. In addition, the paper utilizes publications from the International Finance Corporation (IFC), a member of the World Bank Group. These materials provide an assessment of how digital technologies and financial products are being adopted in developing countries and their impact on financial security. IFC provides analytical data on the adoption of digital solutions, their risks and benefits. UN statistical reports are also used to analyze financial literacy and digital threats. They provide information on financial literacy, cybercrime and the resilience of financial systems to various threats. These data allow comparing international trends with the local situation in Uzbekistan. At the national level, the study relies on the reports of the Central Bank of Uzbekistan on the development of the financial sector. These reports provide information on the introduction of digital products and the level of digitalization of financial services in the country. These reports also make it possible to trace the dynamics of the use of digital solutions in the banking sector, which is necessary for analyzing temporal changes. Important attention is paid to research on financial literacy in Uzbekistan, which provides an indication of how well the population understands the risks associated with digital financial products and knows how to protect their assets. The financial literacy data allow us to assess how customer awareness affects their ability to prevent financial losses and use digital services safely.

Statistical analysis techniques, including time series analysis, are used to process the data collected. This method allows us to study how the use of digital products and the level of financial literacy of the population has changed over the years. Comparing data from different years makes it possible to identify trends and determine the impact of digitalization on financial security. Thus, the study focuses on analyzing the banking sector of Uzbekistan, taking into account international experience and standards. The use of quantitative approach and time series allows not only to identify key interrelationships, but also to provide recommendations for improving financial security in the conditions of digital transformation.

# 3. Results

According In the course of the study of the impact of digital transformation on financial security in the banking sector of Uzbekistan, a comprehensive analysis of various indicators reflecting the level of implementation of digital technologies and their impact on the financial system of the country was conducted. Particular attention was paid to the number of credit organizations, the volume of plastic cards issued, as well as the number of installed terminals and ATMs for the period from 2019 to 2023. This data makes it possible to assess the degree of digitalization of financialservices and identify potential risks arising from this transformation.

Figure 1 provides a detailed overview of the number of credit institutions operating in Uzbekistan from 2020 to 2024. The data reveals a steady and significant growth in the financial sector, especially in the areas of microcredit organizations and pawnshops. Over this five-year period, the number of commercial banks increased from 31 to 36, reflecting a 16% rise. Pawnshops saw a notable increase of 45%, growing from 62 in 2020 to 90 in 2024, which indicates rising public demand for short-term financing services. The most dynamic growth was observed in the microfinance sector, where the number of microcredit organizations surged by 59%, from 57 in 2020 to 91 in 2024. Although mortgage refinancing institutions emerged only in 2021 and remained at a constant count of one through 2024, their presence marks the beginning of diversification in the financial services landscape. The trends illustrated in Figure 1 suggest a broadening of access to financial services, growing institutional diversity, and an overall expansion of Uzbekistan's credit ecosystem—driven in part by digital transformation and increasing consumer demand for tailored financial solutions.



**Figure 1.** Particular attention was paid to the number of credit organizations, as shown in Figure 1, which illustrates the growth trend from 2020 to 2024. [14]

Based on the presented data, we can draw conclusions about the significant growth of the number of credit organizations in Uzbekistan from 2020 to 2024. The number of commercial banks for the period under study increased from 31 to 36, which is an increase of 16%. The growth is observed annually: 1 new bank was added in 2021, 1 bank each in 2022 and 2023, and 1 more bank in 2024. The steady increase in the number of commercial banks may indicate the expansion of the banking sector and its sustained growth, which in turn may increase competition and improve the quality of services provided. The number of pawnshops shows a more pronounced upward trend. In 2020 there will be 62, and in 2024 there will already be 90. This increase is 45% over five years. A significant increase is seen between 2022 and 2023, when the number of pawn shops increased by 7 (from 77 to 84), and an even more significant jump in 2024, by 6 (from 84 to 90). The increase in the number of pawnshops can be attributed to the increased demand for microfinance services among the population, as well as the ease of access to short-term loans. Microcredit organizations showed the highest growth among all categories of credit institutions. In 2020, there were 57, while in 2024, the number reached 91. That's an increase of 59% over five years. The largest growth occurred between 2022 and 2023 (from 74 to 83 organizations, an increase of 12.2%) and between 2023 and 2024 (from 83 to 91 organizations, an increase of 9.6%). This growth indicates the popularization of microfinance, which has become more accessible and attractive to the general population, especially small and medium-sized entrepreneurs. The number of mortgage refinancing organizations remained at zero until 2021, when the first such organization appeared. In the following years (2022-2024) their number remained unchanged, at the level of 1 organization. This may indicate the beginning of the formation of the mortgage refinancing sector, which suggests potential growth opportunities for this area in the future, as the demand for mortgage products and the need for their refinancing increases.

Thus, over the period from 2020 to 2024, there is a significant growth in the number of credit organizations in Uzbekistan, especially microcredit organizations and pawnshops. Commercial banks have also demonstrated moderate but steady growth. The development of the mortgage refinancing sector is still at the initial stage, but this area is expected to grow in the future. The overall growth of credit organizations indicates the expansion of the country's financial sector, which creates more opportunities for businesses and households, and also points to the active development of financial services and the introduction of new financial products.

**Figure 2** illustrates the primary tools used for funding electronic wallets, divided into two categories: cash and non-cash methods. On the cash side, users can deposit money through ATMs, information kiosks, bank counters, and POS terminals. Non-cash methods include bank cards, bank transfers, prepaid cards, and other electronic wallets. This

classification reflects the increasingly diversified methods for conducting digital financial transactions in Uzbekistan. The figure highlights the growing convenience and accessibility of e-wallet services, showing how various technological tools enable fast and secure money transfers. The use of such tools is a key driver behind the expansion of digital banking services in the country. By visualizing these options, Figure 2 emphasizes the importance of infrastructure development in supporting financial inclusion and boosting consumer confidence in digital payment systems.

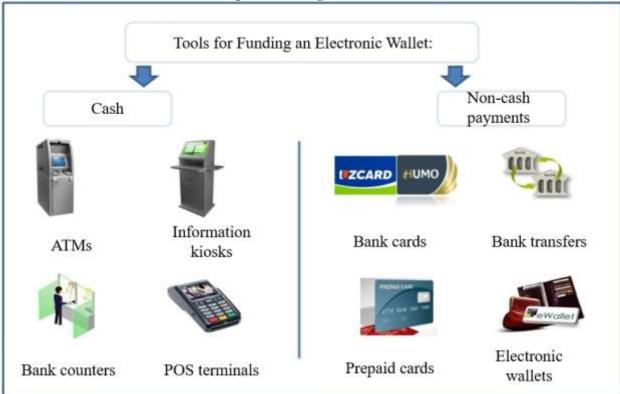


Figure 2. Adding Funds to an Electronic Wallet [15]

The growing number of credit organizations in recent years can be attributed to a number of factors, the key one being the increasing demand for new digital financial products. With modern technological progress and the rapid development of information technology, financial services are becoming increasingly accessible and diverse. The digitalization of financial services opens up new opportunities for consumers to manage their funds, invest, make payments and obtain credit. E-money and digital payment systems offer users convenience and speed that is difficult to achieve with traditional financial instruments. This creates favorable conditions for the emergence of new credit institutions that specialize in providing innovative financial solutions.

From the Figure 2, it becomes obvious that replenishment of e-wallets is carried out in two main ways: cash and non-cash. With the rapid development of the e-money sphere, it is obvious that the number and variety of technologies need to be increased for efficient transactions. To ensure the convenience of users and expand the possibilities of replenishing e-wallets, modern technological solutions such as ATMs, infokiosks and POS-terminals are necessary. These devices not only simplify the process of recharging accounts and making transactions, but also make it more accessible and faster. ATMs provide an opportunity to replenish e-wallets with cash, infokiosks allow you to make various financial transactions at a convenient time, and POS-terminals provide cashless payment for goods and services. The development of such technologies plays a key role in improving the quality of customer service and in adapting financial services to the requirements of the modern market.

Table 1 presents key statistics on the development of digital banking infrastructure in Uzbekistan from 2019 to 2023. The table includes data on the number of bank plastic cards issued, installed payment terminals, ATMs and information kiosks, and the total amount of payments made through payment terminals during this period. The figures clearly show a growing trend in the adoption of non-cash payment systems. From 2019 to 2023, the number of bank cards more than doubled — from approximately 20.1 million in 2019 to 45.2 million in 2023 — demonstrating increased trust and reliance on digital financial tools. Similarly, the number of ATMs and infokiosks rose sharply from 8,709 to 26,576, reflecting improvements in accessibility to digital financial services. While the number of payment terminals initially increased, it slightly declined in 2023, likely due to upgrades or consolidation of infrastructure. Most notably, the volume of payments through terminals surged from 64.3 trillion UZS in 2019 to 228.3 trillion UZS in 2023, which indicates a substantial shift toward cashless transactions. This growth reflects the rapid digital transformation of the banking sector and the population's increasing engagement with electronic payment services. Thus, Table 1 supports the argument that digitalization in Uzbekistan's banking sector is not only expanding access but also strengthening financial security and operational efficiency.

**Table 1.** The number of bank plastic cards issued in circulation, installed payment terminals, ATMs and infokiosks, as well as the amount of payments made through payment terminals [14]

Date	Number of Bank	Number of	Number of	Amount of Payments
	Plastic Cards Issued	Installed Payment	Installed ATMs and	Made Through
		Terminals	Information Kiosks	Payment Terminals
				(Year-to-Date), billion
				UZS
01.12.2019	20 143 038	375 127	8 709	64 284,5
01.12.2020	26 087 048	437 163	11 621	72 412,9
01.12.2021	26 544 713	432 842	12 814	99 229,6
01.12.2022	33 549 913	429 156	20 291	158 457,9
01.12.2023	45 224 213	428 073	26 576	228 308,7

The analysis of the presented data demonstrates a steady upward trend in the use of non-cash payments in the period under review. Over the period from 2019 to 2023, the number of bank plastic cards in circulation more than doubled, from 20,143,038 to 45,224,213. This indicates the increasing confidence of the population in non-cash payments and the growing availability of banking services. Payment terminals: 375,127 payment terminals were installed in 2019, and the number peaked at 429,156 by the end of 2022, before falling slightly to 428,073 in 2023. This dynamics indicates a significant expansion of the network of cashless payment acceptance in the first years of the period and then a stabilization of growth. The number of ATMs and infokiosks increased steadily, from 8,709 in 2019 to 26,576 in 2023. This indicates a growing demand for access to banking services, including cash withdrawals and information.

The amount of payments made through payment terminals increased steadily from 2019 to 2023. It stood at UZS 64,284.5 billion in 2019 and reached UZS 228,308.7 billion in 2023, indicating a significant increase in the popularity of cashless payments. Despite the growth in the number of bank plastic cards, there is a slight decrease in the number of payment terminals in 2021. This may be due to optimization of the terminal network and transition to more modern models. In 2022, the number of ATMs and infokiosks increased sharply, indicating an increase in demand for cash withdrawal and information services.

These statistics suggest that Uzbekistan is experiencing a significant increase in financial security through the development of a cashless payment system. Here are a few key points:

- a. Reduction of risks associated with cash:
  - a) Increase in the number of plastic cards: This means that people are increasingly using safe and convenient payment methods, reducing the risk of theft or loss of cash.
  - b) Expansion of the network of payment terminals: The convenience and accessibility of non-cash payments is increasing, making people less likely to use cash and consequently reducing the risks associated with it.
  - c) Increase in non-cash payments: This is a direct indicator of public confidence in the non-cash payment system and increases financial security by reducing dependence on cash.
- b. Improved control of financial transactions:
  - a) Cashless payments are easier to trace: This allows for better control of financial flows, prevention of fraud and tracing of illegal transactions.
  - b) Development of electronic payment system: The introduction and improvement of electronic payment systems improves the control of financial transactions and enhances financial security for individuals as well as for the entire country.
- c. This significant increase in the number of electronic payment means and devices demonstrates the positive dynamics of digitalization and the creation of a more accessible environment for cashless payments. However, digitalization alone does not guarantee a sustainable improvement in financial security and may be accompanied by various challenges, especially in countries with low levels of financial literacy. [16]
- d. Cybercrime risk: As the use of cashless payments increases, the risk of cybercrime also increases. Attention should be paid to cyber security and protection of citizens' financial data.
- e. Money Laundering (ML) Risks: The growth of cashless payments, especially through e-wallets and cryptocurrencies, can create opportunities for anonymous transactions that can be used for money laundering. Fraudsters can create fictitious companies and bank accounts to transfer and launder illegally obtained funds. Fictitious transactions can be used to legalize dirty money, such as fictitious purchases of goods or services to hide the origin of funds. The development of international payment systems may increase the risk of money laundering through border transfers.
- f. Fraudulent moves: Fraudsters use phishing to gain access to sensitive user data such as card numbers, PINs, logins and passwords. They create fake websites very similar to real bank or payment processor websites and send emails to lure victims to these fake sites. [17] In addition, scammers may send SMS messages demanding sensitive information under the guise of a bank or payment processor. [18] Skimming: The installation of special devices on ATMs or payment terminals that read data from plastic cards.

The popularization of digitalization, especially in banking, is often accompanied by various challenges. Financial literacy, financial security and the level of digitalization of financial sectors have always been and will always be interrelated. Financial literacy and financial security are proportional concepts: as financial literacy improves, so does financial security. Of course, there are other factors that influence the level of financial security, but one of the key factors is literacy.

According to the research conducted by the International Finance Corporation (IFC), a member of the World Bank Group, the level of financial literacy of the population of Uzbekistan leaves much to be desired. The survey, aimed at assessing the knowledge and skills of Uzbek residents in the area of financial management and security, showed that

awareness of basic financial concepts such as lending, personal finance management and use of banking services remains at a low level. Low level of financial literacy contributes to increased financial risks, especially in the context of active digitalization. Lack of public awareness of basic financial security principles increases the likelihood of fraud, including phishing and other forms of cyberattacks. [19]

**Figure 3** highlights the limited understanding many individuals have regarding personal finance management, safe use of online banking services, and the identification of financial fraud. These findings reinforce the conclusion that the overall low level of financial literacy directly correlates with increased vulnerability to cyberattacks, phishing schemes, and other digital financial threats. By visualizing the extent of these knowledge gaps, Figure 3 emphasizes the urgent need for targeted financial education initiatives and public awareness campaigns. Improving financial literacy is not only essential for protecting individual users but also plays a critical role in enhancing the resilience and security of the national banking system in the context of digital transformation.

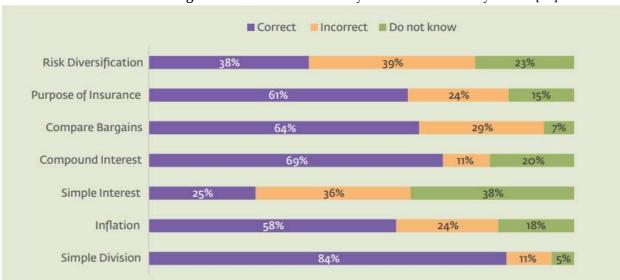


Figure 3. Overview of the Study on Financial Literacy Levels [20]

Improving the level of financial literacy has a direct impact on the financial security of the population. A lack of knowledge and skills in the financial sphere makes people more vulnerable to various financial risks, including fraud and cyberattacks. [21]

### 4. Discussion

The findings of this study indicate that digital transformation in Uzbekistan's banking sector has significantly expanded access to financial services and improved operational efficiency. The steady growth in the number of commercial banks, microcredit institutions, and pawnshops demonstrates a vibrant financial sector responding to public demand for innovative financial solutions. The increase in issued bank cards, payment terminals, and ATM infrastructure points to enhanced availability of non-cash payment methods, aligning with global trends of digital financial inclusion. However, these technological advancements are accompanied by emerging risks, particularly cyber threats such as phishing, fraud, and data breaches, which can undermine financial security if left unaddressed. These results confirm prior studies (e.g., Mamadiyarov, 2021; Berdiyarov, 2021) highlighting that digital banking services necessitate strong cybersecurity measures. The data further validate the hypothesis that a low level of financial literacy contributes to increased vulnerability, reinforcing IFC's (2020) findings on the critical role of consumer education. Moreover, the study emphasizes that digital innovation must be balanced with regulatory updates and proactive collaboration between banks and oversight institutions. Hence, the success of digital transformation in

ensuring sustainable financial security requires not only technological investment but also enhanced financial awareness and institutional preparedness.

## 5. Conclusion

The digital transformation taking place in the banking sector represents a significant shift in how financial services are delivered and managed. New technologies, such as mobile and online banking applications, blockchain, and artificial intelligence, provide new opportunities to improve customer service quality, simplify transactions, and increase overall banking efficiency. However, alongside these advantages, new challenges in financial security also arise. The adoption of digital technologies can lead to an increase in cyberattacks, fraudulent schemes, and data breaches, which threaten both the financial stability of banks and the protection of customers' personal data.

According to FATF recommendations, financial institutions should actively invest in the development of security and cybersecurity systems to minimize risks associated with digital innovations. [22] At the same time, an insufficient level of financial literacy among users can exacerbate the issue, as customers unaware of potential threats become more vulnerable to fraudulent activities. Therefore, the problem of financial security is closely linked to awareness and educational programs aimed at enhancing financial literacy.

#### Recommendations

- Strengthening Cybersecurity: Financial institutions must invest in advanced data
  protection technologies, such as threat detection and prevention systems, and
  regularly update software to safeguard against new types of cyberattacks. Ensuring
  customer data protection and preventing information leaks should be a priority for
  all banks and financial organizations.
- 2. Education and Awareness Raising: Conducting educational programs and financial literacy campaigns for both customers and bank employees is a crucial element in ensuring financial security and the resilience of banking institutions. Such programs should cover a wide range of topics, including fraud detection, personal data protection, safe use of online banking, personal finance management, and cyberattack prevention. Raising customer awareness of fraud types such as phishing and social engineering will help them identify potential threats and take precautionary measures in time. Within organizations, training employees on financial security and threat prevention will enhance information protection and minimize human error risks. Implementing these programs promotes a deeper understanding of risks associated with modern digital technologies among users, strengthens trust in banks, and increases the overall security of the financial system.
- 3. Collaboration with Regulators: Banking institutions should actively collaborate with authorized bodies, such as the Prosecutor's Office of the Republic of Uzbekistan and the Central Bank, to ensure compliance with international financial security standards. This collaboration should align with FATF recommendations and include measures to prevent financial crimes and combat money laundering. According to FATF Recommendation 1, a risk-based approach should be applied to both economic sectors—by the authorized bodies—and to customers—by banks. If banks suspect money laundering or fraudulent activities, they must promptly report suspicious transactions to the relevant authorities as prescribed by FATF Recommendation 20. Additionally, when introducing new technologies into the banking sector, strict adherence to measures outlined in FATF Recommendation 15 is required to minimize potential risks and threats associated with the use of new financial technologies.

It is recommended to develop internal security standards and protocols that comply with international guidelines and requirements set by FATF and other regulatory bodies. These standards should cover all aspects of digital operations and ensure a comprehensive approach to data protection and risk prevention.

#### REFERENCES

- [1] World Economic Forum, 2023, "Global Risks Report 2023," p. 12.
- [2] Kartunov, V. V., 2022, "Cyber Threats and Financial Security," Science Publishing House, 150 p., p. 45.
- [3] Abulqosmmon Kh., The Economic Security of the State. Textbook. Committee for Coordination of Development of Science and Technology -T.: Akayeshgua, 2012. ISBN 978-9943-368-43-9, pp. 3-5.
- [4] Economic Security: Textbook / edited by N.V. Manokhina. M.: INFRA-M, 2019. 320 p. -(Higher Education; Bachelor's degree). www.dx.doi.org/10.12737/1831, ISBN 978-5-16-009002-3 (print), ISBN 978-5-16-100872-0 (online)
- [5] Yurgens, O.V. Economic Security of Russia in the Context of Globalization. M.: Science, 2006. 256 p.
- [6] Scissors, D. Economic Security: Neglected Dimension of National Security? Washington, D.C.: Heritage Foundation, 2013. 98 p.
- [7] Klimenko, A.V. The Economic Security of the State: A Modern Interpretation // Journal of Economic Security. 2017. No. 3. pp. 45–59.
- [8] Bondarenko, G.V. Economic Security: National and International Aspects. M.: Yurayt, 2012. 432 p.
- [9] Burkhanov, Aktam U., et al. "Assessment of Financial Security of Joint-Stock Companies: The Case of Uzbekistan." Development of International Entrepreneurship Based on Corporate Accounting and Reporting Acording to IFRS. Vol. 33. Emerald Publishing Limited, 2024. 205-213.
- [10] Tursunov, Bobir. "Financial security in small business in period of digital economy: in case of Uzbekistan." Proceedings of the 6th International Conference on Future Networks & Distributed Systems. 2022.
- [11] Ismailov, Alisher. "WAYS TO ENSURE SUSTAINABLE GROWTH OF COMMERCIAL BANKS'LOANS IN THE PERIOD OF DIGITALIZATION." Proceedings of the 6th International Conference on Future Networks & Distributed Systems. 2022.
- [12] Toshtemirovich Mamadiyarov, Zokir. "Risk management in the remote provision of banking services in the conditions of digital transformation of banks." Proceedings of the 5th International Conference on Future Networks and Distributed Systems. 2021.
- [13] Berdiyarov, Bakhriddin. "Uzbekistan in Banking Practice: Opportunities to Use Foreign Experience to Ensure Liquidity and Solvenity of Commercial Banks." Proceedings of the 5th International Conference on Future Networks and Distributed Systems. 2021.
- [14] Central Bank of the Republic of Uzbekistan. Statistical Bulletins for 2019, 2020, 2021, 2022, 2023, and 2024.
- [15] Central Bank of the Republic of Uzbekistan. Official Website. Available at: Central Bank of Uzbekistan.
- [16] Taylor, M. (2021). Digital Transformation and Financial Inclusion in Emerging Markets. Oxford University Press, 340 p., pp. 204-225.
- [17] Pfleeger, C. P., & Pfleeger, S. L. (2006). Security in Computing (4th Edition). Pearson Education, 688 p., Chapter 7: Security Threats and Attacks.
- [18] "Cybersecurity: A Practical Approach" by Mike Chapple and David Seidl (2nd Edition, 2019), Cengage Learning, 840 p., Chapter 8: Social Engineering and Phishing.
- [19] Pavlova, L. (Ed.). Financial Literacy and the Resilience of the Financial System in Developing Countries. Moscow: Delo Publishing House, 2019. pp. 145-167, total pages: 310.
- [20] IFC: Study on the Level of Financial Competence, 2020. <a href="https://www.ifc.org/en/insights-reports/2020/uz-fin-capacity-and-inclusion-eng">https://www.ifc.org/en/insights-reports/2020/uz-fin-capacity-and-inclusion-eng</a>
- [21] "Theory and Practice" by I.V. Grabova. Moscow: Financial University, 2016. 320 p., pp. 110-115.
- [22] International Standards on Combating Money Laundering, Financing of Terrorism, and Financing of the Proliferation of Weapons of Mass Destruction. FATF Recommendations. <a href="https://www.fatf-gafi.org/en/publications/Fatfrecommendations/Fatf-recommendations.html">https://www.fatf-gafi.org/en/publications/Fatfrecommendations/Fatf-recommendations.html</a>