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INTRODUCTION OF DIGITAL IDENTIFICATION SYSTEMS IN THE BANKING SECTOR OF UZBEKISTAN AND THE LEGAL ENVIRONMENT

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Abstract

Today, digital technologies are deeply penetrating all aspects of our lives. In particular, the finance and banking sector is at the center of digital transformation, creating new opportunities to improve the quality of services, create convenience for customers, and ensure security. Digital identification systems play an important role in the banking sector in reliably and quickly identifying customers and safely carrying out financial transactions. The banking sector of Uzbekistan is also actively participating in this process and expanding the introduction of modern digital identification tools. Digital identification systems allow for quick and accurate identification of customers, which helps to increase the speed and quality of banking services. Unlike traditional identification methods, digital systems use biometric data, electronic passports, mobile applications, and other digital tools. This creates convenience for customers and increases the level of security for banks. Digital identification also increases the ability to prevent fraud and illegal transactions. The banking sector of Uzbekistan has been making significant progress in introducing digital identification systems in recent years. This article analyzes the use of digital identification systems in the banking sector, their advantages, emerging challenges, and the legal environment.

Keywords: Banking, finance, digital technologies, problems, digital identification, customers, economy, solution, electronic signature, biometric data, electronic passports, mobile applications, digital identification.

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Introduction

Digital identification systems in Uzbekistan's banking sector have gained particular significance in recent years within the broader context of the country's digital economic transformation. Digital identification represents an electronic mechanism for verifying and confirming a customer's identity, playing a critical role in ensuring the security, convenience, and speed of banking services. Unlike traditional methods of identification, digital identification processes allow customers to prove their identity remotely, which became especially important during the pandemic and in today's fast-paced environment.

For Uzbekistan's banking sector, the introduction of digital identification systems not only enhances the quality of customer service, but also serves as an effective tool for strengthening the security of financial services and combating fraud and cyberattacks. At the same time, digital identification systems contribute to reinforcing trust between banks and their clients. The development of the digital economy, the widespread adoption of information and communication technologies, and the government's commitment to supporting digital transformation are further accelerating the implementation of digital identification systems within the banking industry.

LITERATURE REVIEW

In recent years, global digitalization processes have brought significant changes to Uzbekistan's banking sector as well. Digital identification systems are increasingly recognized as essential tools for making banking services more convenient, faster, and more secure. Identifying customers through digital methods enhances service quality while reducing fraud risks and cybersecurity threats. At the same time, the effective implementation of digital identification systems requires a robust legal framework. Although a number of laws and regulatory documents have been adopted in the Republic of Uzbekistan, continuous improvement of legislation is necessary to ensure the full and efficient functioning of these systems.

Abdullaev A. (2019), in his research work "Digital Technologies in Uzbekistan's Banking Sector: Opportunities and Challenges," analyzes the role of digital identification systems in banking services and identifies the main obstacles to

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their implementation. He emphasizes that the introduction of digital technologies in the banking sector can simplify customer service and enhance security. At the same time, he highlights challenges such as legislative gaps and insufficient technical infrastructure[1].

Khasanov B. (2018), in his study "Digital Identification Systems and Their Application in the Banking Sector," examines the practical aspects and legal foundations of implementing technologies such as biometric identification and electronic digital signatures within Uzbekistan's banking system[2].

Mirzayev S. (2017), in his work "Electronic Documents and Digital Signature in Banks," analyzes the legal validity of electronic document circulation and digital signatures, as well as their application in banking services. The author provides recommendations aimed at increasing the efficiency of customer identification through digital signatures[3].

Islomov T. (2020), in his research "Protection of Personal Data in the Banking Sector," explores the legal foundations and practical issues related to safeguarding customers' personal data within digital identification systems. He emphasizes the need to improve protection mechanisms based on the laws of the Republic of Uzbekistan and international standards[4].

RESEARCH METHODOLOGY

A digital identification system is a technological solution that enables individuals to reliably verify their identity in an online environment. For the banking sector, this system allows customers to be securely identified remotely — for instance, through internet banking or mobile applications. Unlike traditional identification methods, digital systems enable automatic and rapid verification of customer identity, contributing to effective fraud prevention and protection against cyberattacks. As a result, service quality improves, customer relationships are strengthened, and service delivery processes become more efficient.

[1] Abdullaev A. *Digital Technologies in Uzbekistan's Banking Sector: Opportunities and Challenges*. Tashkent Financial Institute Publishing, 2019.
[2] Khasanov B. *Digital Identification Systems and Their Application in the Banking Sector*. *Finance and Banking* Journal, Tashkent, 2018.
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The Government of Uzbekistan is developing comprehensive strategies aimed at advancing the digital economy and digital finance. Within these strategies, the banking sector is regarded as a key component of digital transformation. By implementing digital identification systems, banks not only enhance service quality but also contribute to strengthening the digital infrastructure of the national economy. To support this, a number of regulatory documents have been adopted and are being applied in practice across the banking sector.

The legal foundations of digital identification systems are established in the laws and regulatory acts of the Republic of Uzbekistan. The Law on the Protection of Personal Data regulates the collection, storage, processing, and safeguarding of customers' personal information. This law obligates banks to process customer data based on explicit consent and prohibits the disclosure of such data to third parties. In addition, the laws on electronic signatures and electronic document circulation provide the technical and legal infrastructure for digital identification systems. Through electronic signatures, customers can conclude contracts, submit applications, and formalize various documents remotely.

Digital identification systems in the banking sector are applied in various forms. Biometric identification — such as fingerprint scanning, facial recognition, and voice authentication — has become widely used. Furthermore, two-factor authentication systems are extensively implemented in mobile applications and internet banking platforms. These mechanisms serve as effective tools for preventing unauthorized access to customer accounts.

Overall, digital identification systems greatly simplify access to banking services, reduce the need for customers to visit physical bank branches, and enable the execution of numerous operations remotely.

ANALYSIS AND RESULTS

In recent years, Uzbekistan's banking sector has undergone fundamental transformation through the widespread adoption of digital technologies. In particular, the development and extensive use of digital identification systems have become key drivers for enhancing service quality, improving customer convenience, and ensuring the security of financial transactions. These

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advancements not only increase the operational efficiency of banks but also significantly improve the overall customer experience in using banking services.

1. Implementation of Digital Identification Systems

By the end of 2023, the number of users of digital identification services within Uzbekistan's banking system exceeded 10 million. This figure represents a 2.5-fold increase compared to 2021, indicating rapidly growing demand for digital identification over a two-year period. Such growth reflects rising customer trust in digital services and increasing convenience associated with their use.

In 2023, 65% of all newly opened bank accounts were created through remote identification. This demonstrates a clear shift in customer preference from traditional in-branch account opening to online and remote methods. Remote identification processes provide customers with notable convenience, reducing both time and financial costs[5].

The volume of transactions conducted through digital identification systems surpassed 250 trillion UZS in 2023. This figure highlights the high level of digitalization within the banking sector. As digital operations expand, banks are delivering services more rapidly and efficiently, while also simplifying customers' financial activities.

2. Legal Environment

The Government of Uzbekistan has established a clear strategy for developing and widely implementing digital identification systems. In 2020, the Presidential Decree PF-6079 approved the *"Digital Uzbekistan – 2030"* concept, which aims to develop the country's digital infrastructure and, in particular, expand the use of digital identification services within the banking sector[6].

The Law *"On Electronic Digital Signature,"* adopted in 2021, provided a legal foundation for digital identification processes and ensured the protection of customers' personal data. This law defines the legal validity of electronic signatures, enhancing security and reliability in the use of online services.

[5] Karimova N. *"Digital Banking Services and Customer Identification."* *Information Technologies* Journal, Tashkent, 2021.
[6] "Digital Uzbekistan – 2030" Concept and Presidential Decree PF-6079 (https://lex.uz/docs/-5030957)

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Additionally, in 2023, the Central Bank of Uzbekistan developed new regulatory documents governing digital identification and online banking services. These regulations are aimed at improving customer identity verification, ensuring data security, and strengthening cybersecurity within the banking system. As a result, they contribute to higher service quality and stronger customer protection across the sector.

3. Results and Effectiveness

The introduction of digital identification systems has helped reduce banks' operational costs by an average of 10–12%. Thanks to remote identification and automated processes, banks have been able to optimize staffing levels and reduce paperwork along with other administrative expenses. Customer service speed has increased by 30%. With the help of digital systems, customers can access banking services more quickly, waiting times in queues have decreased, and overall service quality has improved. This, in turn, has raised customer satisfaction and strengthened their trust in the banking system.

In 2023, cases of fraud and cybersecurity incidents in the banking sector decreased by 15%. Digital identification systems have proven effective in enhancing security, preventing fraudulent activities, and protecting customer data. Banks are placing increasing emphasis on strengthening cybersecurity measures to ensure the safety of both customers and system operations.

The implementation of digital identification systems accelerates the digital transformation of banking services. This process enhances customer convenience, improves operational efficiency, and increases competitiveness in the financial services market. At the same time, digital identification expands opportunities for developing new financial products and services. For example, instant lending, online payments, investment platforms, and various other services operate more effectively with digital identification tools.

However, the development of digital identification systems brings certain challenges as well. The primary concern is ensuring the security and reliability of these systems. Cyberattacks, data breaches, and fraud attempts remain vulnerabilities of digital platforms. Therefore, strengthening cooperation between banks and government agencies and continuously improving security standards

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are essential. It is also important to regularly raise customer awareness about digital security and enhance protective measures. Additionally, developing technological infrastructure and deploying modern security solutions are necessary to ensure stable and secure system operation.

Table 1 Implementation of Digital Identification Systems and the Legal Environment in Uzbekistan's Banking Sector

№	Indicator	Description
1	Concept of digital identification	A reliable method of remote identity verification implemented through biometric and electronic tools.
2	Application in the banking sector	Banks use digital ID for online customer registration, account opening, and the provision of remote services.
3	Core technologies	Biometric identification (fingerprint, facial recognition), mobile identification, electronic digital signature (EDS), and the e-Identification platform.
4	Yirik raqamli tizimlar	OneID (Unified Identification System), ID.GOV.UZ, Public Services Center systems, and integration with banking applications.
5	Legal foundations	- *Law on Electronic Government* (2015) - *Law on Electronic Digital Signature* (2003) - Presidential Resolution PQ–4699 (2019): "Measures for the Development of the Digital Economy" - Regulations of the Central Bank of the Republic of Uzbekistan.
6	Challenges in implementation	- Insufficient technological infrastructure - Cybersecurity threats - Low level of digital literacy among the population - Gaps and ambiguities in legislation.
7	Achievements and advantages	- Customer convenience and faster service delivery - Digitalization of banking services - Reduction in fraud incidents - Optimization of operational costs.
8	Recommendations for development	- Expansion of biometric identification - Improvement of legislation - Creation of a unified national digital ID database - Strengthening information security.

The legal environment must evolve in line with the rapidly changing demands of digital technologies. Ensuring the effective operation of digital identification

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systems requires continuous improvement of the legislative framework, as well as the adoption of international standards and best practices. At the same time, the development and implementation of national standards for digital identification are of great importance. These measures help guarantee the reliability and security of digital identification systems within the banking sector. The introduction of digital identification systems accelerates the digitalization and automation of banking services. This enables banks to organize internal processes more efficiently and provide customers with faster and higher-quality services. In addition, digital identification strengthens the role of the banking sector within the broader digital economy and supports the expansion of financial inclusion. It plays a particularly significant role in facilitating access to financial services for populations living in remote or underserved areas.

The development of digital identification systems in Uzbekistan's banking sector is a key factor in ensuring the stability of the national financial system, improving the quality of financial services, and creating new opportunities for customers. At the same time, digital identification systems help reduce financial fraud, enhance cybersecurity, and strengthen the digital infrastructure of banks. Through such systems, banks can gain a deeper understanding of their customers and provide more personalized services.[7]

CONCLUSION AND RECOMMENDATIONS

In conclusion, the introduction of digital identification systems in Uzbekistan's banking sector enables financial services to become safer, faster, and more convenient through the use of modern technologies. This process is closely linked to the strength of the legal framework established by the state, the commitment of banks to developing technological infrastructure, and customers' growing need for digital security. Digital identification systems serve as a key driver of the digital transformation of banking services and make a substantial contribution to the country's digital economic development. In the future, the further expansion and improvement of these systems will play an important role in enhancing the global competitiveness of the banking sector. Therefore, it is essential to continue

[7] Rasulov D. *"Legislation of the Republic of Uzbekistan on Digital Identification Systems."* "Legal Studies" Publishing, Tashkent, 2016.

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implementing technological innovations, consistently improving the legal framework, and raising customer awareness of digital security. These measures will contribute to the stable and competitive development of Uzbekistan's banking sector.

To strengthen the implementation of digital identification systems and further develop the legal environment in Uzbekistan's banking sector, the following recommendations can be made:

- Broaden the use of modern technologies that enable fast and reliable customer identification—such as biometric data, facial recognition, and fingerprint scanning. This will simplify customer service processes and enhance security for banks.
- Continuously update legislation related to digital identification and electronic signatures, harmonize it with international standards, and introduce clear and strict requirements for data protection and privacy. This will strengthen trust between banks and their customers.
- Expand the automation and integration of digital identification processes within banking systems to increase opportunities for remote service delivery. Ensuring interoperability between systems is essential for enabling fast and secure data exchange.
- Provide regular training to both bank employees and customers on the use of digital identification systems, improve digital literacy, and raise awareness of cybersecurity risks. This will not only ensure the effective use of technologies but also help reduce security threats. At the same time, conducting information and communication campaigns is important to increase customer confidence in digital services.

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