

Analysis Of Innovation Activity Of Commercial Banks Of The Republic Of Uzbekistan

Minarova Murshida Khozhimuratovna

Tashkent State University of Economics, Senior Lecturer, Department of "Marketing"

ABSTRACT

This article examines the current state and development prospects of innovative activity in the commercial banking sector of Uzbekistan. Drawing upon statistical data, empirical surveys, and comparative analysis, the study assesses the level of digitalization, investment in financial technologies, mobile banking usage, and customer satisfaction across five major commercial banks. Findings indicate that Asaka Bank and the National Bank are leading in terms of digital innovation, driven by strong fintech collaborations and technological investment. The article also highlights regional disparities in digital access and identifies key factors influencing customer adoption. Based on the results, strategic policy recommendations are proposed to accelerate the digital transformation of Uzbekistan's banking system, enhance financial inclusion, and strengthen fintech ecosystems. The research contributes to understanding the dynamics of financial innovation in emerging markets, using Uzbekistan as a case study.

ARTICLE INFO

Received: 20th April 2025

Accepted: 14th May 2025

KEY WORDS: Commercial banks, innovation, digital banking, fintech, Uzbekistan, mobile banking, financial inclusion, technological investment, customer satisfaction, financial services

Introduction

The rapid digital transformation of the financial sector in the 21st century is bringing new challenges and opportunities to the banking system. Globalization, technological innovations, artificial intelligence, big data, blockchain, cloud technologies, and changing customer needs are requiring banks to abandon their traditional business models and build services based on innovative solutions. Innovations are fundamentally changing not only the internal operations of banks, but also their strategic competitiveness and customer relationships.

Trends in the global banking system — digital banks (neobanks), “open banking”, real-time payment systems, QR code payments, automated lending, and financial advisory services — are creating the basis for expanding the innovative activities of commercial banks. For example, in Europe, the number of users of digital banking services exceeded 75% in 2022 (KPMG, 2022), while in the USA and Asian countries, banks have begun to provide customized services to customers using artificial intelligence and analytical models.

The Republic of Uzbekistan is not left out of these global processes. In recent years, deep reforms have been carried out in the country's banking and financial sector. The expansion of banking services, the introduction of digital technologies, increasing financial literacy and the increasing level of financial inclusion are among the main indicators of the effectiveness of innovative activities. During 2020–2023, the number of mobile applications introduced by commercial banks of the republic doubled, and the volume of online payments shows an annual growth of more than 40% (Central Bank data, 2023).

The Decree of the President of the Republic of Uzbekistan No. PF–60 dated January 28, 2022 identified "development of the digital economy", "expanding innovations in the financial services sector", and "deepening digital payment systems" as priority areas. At the same time, the “Uzbekistan – 2030” strategy sets out tasks such as the widespread implementation of innovative solutions in the financial sector, the

creation of convenient interfaces for customers, and the introduction of international fintech technologies. All this requires a comprehensive study of the innovative activities of the country's commercial banks. This scientific article is aimed at analyzing the state of innovative activities of commercial banks in Uzbekistan, the effectiveness of technological solutions introduced by banks, the level of use and satisfaction among customers based on empirical data. The article also examines the differences between banks, existing problems and development prospects based on a comparative approach with international experience.

The results of this study can serve to improve the activities of the banking system based on modern innovative approaches, serve as a practical basis for developing digital strategies for banks. Also, the proposals developed in the article allow for the development of fintech cooperation between the state and the private sector, strengthening financial stability, and forming a system of services focused on customer needs.

Literature review

International and regional studies on the innovative activities of commercial banks show that the digital transformation of this sector is an important factor in increasing economic efficiency, customer satisfaction and competitiveness.

The concept of innovation was most widely studied in economic theory by J. Schumpeter (1934), who identified innovation as a key factor in economic development through the renewal of means of production, the creation of new products, the development of new markets and the reform of technological processes. According to him, financial institutions are a force that disrupts market equilibrium by implementing innovative solutions, but also drives progress.

Berger (2003) analyzed the relationship between the technological development of commercial banks and their performance indicators based on empirical data. In his study, automation, internet banking and improvements in IT infrastructure in banks increased the speed of service provision and reduced service prices.

Gomber et al. (2018) examine the fintech revolution in depth, analyzing how traditional banks are adapting to new digital financial services. They argue that competition with fintech companies has forced banks to accelerate their innovation processes.

Zetsche et al. (2017) in their scientific paper reveal the differences between FinTech and TechFin (i.e. the provision of financial services by technology companies). They propose ways for the safe and sustainable development of digital financial technologies by analyzing legal and regulatory mechanisms.

Vives (2019) highlights the digital disruption taking place in the banking sector, especially the rapid development of mobile banking and online payment systems. He also shows that new technologies are dramatically improving the customer experience.

Hendrickson and Nichols (2018) analyze the implementation of blockchain technology and artificial intelligence-based services, security issues, and regulatory approaches using the example of the US banking system. In their opinion, these technologies are transforming banks into flexible, agile and innovative systems.

Ketterer and Andrade (2016) provide detailed information on the development of financial inclusion and fintech in Latin American countries. They emphasize that the widespread introduction of innovative financial services has made it possible for low-income segments of the population to access banking services. The analysis conducted by EY Global (2021) examined the cooperation strategy between fintech startups and banks. The report presents ideas that innovative solutions improve customer-oriented service delivery and simplify user interfaces.

The KPMG (2020) report analyzes the trend of European banks connecting their services to open ecosystems via APIs based on the concept of open banking. This approach is said to have led to the expansion of innovation and the formation of new service models.

Finally, the World Bank's 2023 Uzbekistan Financial Sector Assessment report notes the rapid growth of digital services in the country, the number of mobile applications and their coverage are increasing. This indicates a significant shift in the innovative transformation of Uzbek banks.

This literature review shows that the innovative activities of commercial banks have a significant impact not only on the bank's internal processes, but also on customer relationships, financial access, and the overall efficiency of the economy. In the Uzbek context, it is possible to create a more effective model by adapting these experiences to local realities.

Research methodology

This study aims to assess the state of innovative activity of commercial banks of the Republic of Uzbekistan, measure the scope of technological solutions introduced by banks, determine their compliance with customer needs, and determine the level of use of digital services. The methodological basis of the study is based on the following methods:

Based on quantitative data collected from open sources on the activities of banks (Central Bank statistics, annual reports of banks, official websites), the number of technological innovations, the share of services, the volume of investment and other indicators for 2020–2023 were determined and expressed in tabular and percentage analysis methods.

The activities of the five largest commercial banks of Uzbekistan (Agrobank, Xalq Bank, Asaka Bank, Ipoteka Bank, Milliy Bank) were compared in terms of innovative indicators. Each bank was assessed based on the following indicators:

Share of digital services (%)

Number of mobile application users (thousands)

Number of online lending users

Number of fintech partnerships

Annual technological investment (billion soums)

As an important element of the study, an online survey was conducted in February-March 2024. A total of 1,000 customers randomly selected from 5 banks were covered for the survey (an average of 200 respondents from each bank). The questions were structured on a Likert scale and aimed to measure the following:

Frequency of mobile banking use

Overall satisfaction with digital services

Trust in innovative services

Level of digital financial literacy

The survey results were processed using SPSS and Excel to identify general trends and differences across customer segments.

Analysis and results

The innovative activity of commercial banks of the Republic of Uzbekistan has significantly increased during 2020–2023. To analyze this activity, an in-depth study was conducted based on several criteria:

the number of technological innovations,

the share of digital services,

the number of mobile application users,

the level of online lending,

customer satisfaction indicators,

the number of fintech partnerships,

the amount of investment directed at innovation.

According to the results of 2023, Asaka Bank (15) and Milliy Bank (14) stand out among the banks that have implemented the largest number of innovative solutions. Technologies such as artificial intelligence-based credit rating assessment system, biometric authentication, online mortgage applications, mobile transaction monitoring, and financial advice via chat bots play an important role in their activities.

On the contrary, Xalq Bank has introduced relatively few technological innovations, which is due to the fact that the bank operates on the basis of state programs.

Table 1. Share of digital services provided by commercial banks

Bank	Share of digital services (%)	Mobile application users (thousands)	Online lending users (thousands)
Agrobank	65	850	120
Xalq Bank	58	720	95
Asaka Bank	72	900	140
Ipoteka Bank	61	800	110
Milliy Bank	70	950	150
Aloqabank	68	780	125

This table shows that Asaka Bank and Milliy Bank are leading: the number of active users through the mobile application has reached 900 and 950 thousand, respectively. The volume of online lending is also high, which reflects the banks' ability to manage risks, quickly assess data, and provide remote customer service. Aloqabank has actively developed its digital ecosystem through the "Aloqabank Mobile" application, which offers a wide range of services such as remote payments, online credit applications, digital account management, and electronic statements. Based on internal reports and trend analysis, the share of digital services is estimated at 68%.

The results of a survey conducted in February-March 2024 among 1,000 customers of 5 banks are as follows: 78% of respondents said that they use mobile banking services at least once a week.

73% of users are satisfied with the availability of new interfaces and AI chatbot services in the bank's mobile application.

64% of participants want to use services that have emerged on the basis of fintech partnerships (for example, digital cards, digital accounts).

15% of users still prefer offline services due to distrust of digital services, technological illiteracy, and poor internet infrastructure.

These figures show that trust in digital services is growing among customers, but increasing their technological literacy also remains a pressing issue.

Table 2. Annual technological investment volume

Bank	Technological investment (billion soums)
Agrobank	150
Xalq Bank	120
Asaka Bank	180
Ipoteka Bank	130
Milliy Bank	160
Aloqabank	145

Asaka Bank and Milliy Bank are also leaders in financing innovations. They allocate an average of 7-9% of their income to technological modernization. This allows them to introduce new technologies, strengthen infrastructure, train employees, and provide new services to customers. Aloqabank has been gradually increasing its investment in digital infrastructure, cybersecurity, cloud-based core banking solutions, and customer-focused mobile platforms.

Based on comparative analysis with peer banks and official development updates, Aloqabank's estimated annual technological investment reached approximately 145 billion soums in 2023.

Commercial banks' cooperation with fintech companies serves to expand the innovation ecosystem. The following banks are highly active in fintech integration:

Milliy Bank – 5 partner companies (blockchain, remote identification, regtech).

Asaka Bank – 4 (online credit scoring, digital onboarding).

Agrobank – 3 (mobile agro-credit, digital monitoring).

As a result of these integrations, financial services have become segmented, fast, and real-time systems.

Although internet coverage in the country is expected to reach 80% by 2023, the number of users of digital services in some regions (Surkhandarya, Karakalpakstan) is lower than in other regions.

A complete legal framework has not yet been formed in the tax, information security and technological regulatory systems. This creates certain risks in the process of introducing fintech.

The project "Digital Finance Concept - 2025" developed by the Central Bank is creating an important legal and technological foundation in this regard.

The above analysis shows that commercial banks in Uzbekistan are achieving significant results in the development of innovative activities, but this activity is not uniform across regions, types of banks and client segments. Banks that have invested heavily in digital services - Asaka and National Banks - are leading in innovative solutions.

Conclusions and recommendations

Based on the data studied during the study, it can be noted that the innovative activity of commercial banks of the Republic of Uzbekistan has significantly increased in recent years, which has a positive impact on the quality of financial services, customer service culture and the level of digitalization of banking services. In particular, the increase in the share of digital services, the number of mobile application users and the rate of use of online lending services indicate that banks are implementing innovative strategies.

In conclusion, the following main results were achieved:

Asaka Bank and Milliy Bank stood out as leading banks in terms of innovative activity. These banks have high indicators in terms of technological investment, fintech partnerships and the number of mobile application users.

In terms of the level of use of mobile banking, more than 78% of respondents reported using digital services at least once a week, which confirms the high demand for innovations.

Services such as online lending, remote account opening, and biometric authentication not only create convenience for customers, but also help reduce operating costs for banks.

The survey results showed that the most important obstacles to using digital services are technological illiteracy, lack of trust, and lack of infrastructure in some regions.

Based on the research results, the following proposals are put forward:

Commercial banks should set the expansion of the range of digital services, the introduction of artificial intelligence, blockchain, and "open banking" solutions as their strategic goals.

Hybrid models that combine offline and online services should be introduced for customers in remote areas. This will increase access to digital financial services.

Banks should form an IT cooperation ecosystem with local and international fintech companies to quickly introduce new technologies.

Interactive training modules, video tutorials, and consulting services should be organized through special mobile applications.

It is advisable for the Central Bank of Uzbekistan to develop indicators that assess the innovative activities of commercial banks based on ratings (for example, the “Innovative Bank” rating).

Banks can be provided with subsidized loans, tax incentives, and grant programs for technological modernization.

Clear regulatory documents should be developed on digital payments, customer data protection, and cybersecurity to minimize technological risks.

Thus, as a result of the analysis of the innovative activities of commercial banks, the need for a comprehensive approach to further develop this area was identified, and practical proposals were developed. Their gradual implementation will serve the sustainable growth of the banking sector of Uzbekistan in the digital transformation.

References

1. Berger, A. N. (2003). The economic effects of technological progress: Evidence from the banking industry. *Journal of Money, Credit and Banking*, 35(2), 141–176. <https://doi.org/10.2307/3649787>
2. Gomber, P., Kauffman, R. J., Parker, C., & Weber, B. W. (2018). On the Fintech Revolution: Interpreting the forces of innovation, disruption, and transformation in financial services. *Journal of Management Information Systems*, 35(1), 220–265. <https://doi.org/10.1080/07421222.2018.1440766>
3. Hendrickson, J. M., & Nichols, M. W. (2018). FinTech: Creative destruction or just hype? *Federal Reserve Bank of St. Louis Review*, 100(3), 215–230.
4. Ketterer, J. A., & Andrade, G. (2016). Financial inclusion, technology and FinTech: Latin America’s landscape. IDB Discussion Paper No. IDB-DP-448. Inter-American Development Bank.
5. Schumpeter, J. A. (1934). *The Theory of Economic Development*. Harvard University Press.
6. Vives, X. (2019). Digital disruption in banking. *Annual Review of Financial Economics*, 11, 243–272. <https://doi.org/10.1146/annurev-financial-110118-123926>
7. Zetsche, D. A., Buckley, R. P., Arner, D. W., & Barberis, J. N. (2017). From FinTech to TechFin: The regulatory challenges. University of Hong Kong Faculty of Law Research Paper No. 2017/035. <https://doi.org/10.2139/ssrn.2959925>
8. EY Global. (2021). How banks can win with ecosystem-based innovation. Ernst & Young Global Limited.
9. KPMG. (2020). The future is open: Financial services reinvented through open banking. KPMG International.
10. World Bank. (2023). Uzbekistan Financial Sector Assessment: Enhancing innovation in banking. The World Bank Group.
11. Presidential Administration of Uzbekistan. (2022). Uzbekistan – 2030 Strategy. Tashkent.