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Current State and Analysis of Digital Financial Services in Commercial Banks in Uzbekistan

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Abstract: This article examines the current state and development trends of digital financial services in commercial banks of the Republic of Uzbekistan. Based on official statistics of the Central Bank and the results of a functional audit of leading banks, the dynamics of remote banking service users, changes in payment infrastructure, volumes of remote products and the level of functional maturity of mobile applications are analysed. It is shown that over the period 2021–2025 the number of users of remote banking systems increased more than 3.6 times and reached 79.3 million by the end of 2025. Growth is driven mainly by the intensity of use of the existing infrastructure rather than by a simple increase in the number of devices. A functional audit of eight banks revealed significant differentiation in digital transformation models. The conclusion is drawn that it is necessary to move from the stage of mass coverage to the stage of improving quality, completeness of remote processes and cybersecurity.

Keywords: digital financial services, commercial banks, mobile banking, payment infrastructure, functional audit, Uzbekistan, digital transformation, cybersecurity, open banking.

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1. Introduction

Digital transformation of the banking sector has become one of the key factors determining the competitiveness of financial institutions worldwide. In the context of the accelerated introduction of financial technologies (FinTech), the traditional branch-centric model of customer service is gradually giving way to remote, mobile and platform-based solutions. Banking services are increasingly delivered through mobile applications, internet banking platforms, instant payment systems, remote biometric identification and electronic wallets. As a result, a fundamental shift is taking place – from a model focused on the physical presence of the client in a branch to a model of continuous, remote, personalised and data-driven service [1,2,3].

This global trend is particularly relevant for the Republic of Uzbekistan. Over the past decade the coverage of the population with banking services has expanded significantly, the volume of non-cash payments has grown rapidly, and the state has declared the formation of a national FinTech ecosystem as one of its strategic priorities [4]. The President of the Republic of Uzbekistan, Sh.M. Mirziyoyev, has repeatedly emphasised the importance of turning the country into a regional IT and FinTech hub, noting that “the financial system and technologies are changing rapidly” and that Uzbekistan must take an active position in this transformation. The regulatory framework is being consistently updated: a series of resolutions and decrees aimed at the development of open banking,

instant payments, cybersecurity and the popularisation of non-cash payments have been adopted.

Among the most significant recent regulatory acts, Presidential Resolution PQ-359 of 27 November 2025 deserves special attention. It sets the task of developing a national strategy for the development of financial technologies for the period 2026–2030, introducing the practice of providing personal and financial data to third parties with the client's explicit consent, and creating the institutional conditions for open banking [5]. Decree PF-246 is aimed at popularising non-cash payments and reducing the share of the shadow economy, while Decree PF-38 approved the Cybersecurity Strategy for 2026–2030 [6]. Taken together, these documents create a solid institutional foundation for a qualitatively new stage in the development of digital banking services in the country.

Despite the impressive quantitative growth of digital channels, a number of important questions remain insufficiently studied. How complete is the transition from simple payment operations to full remote product journeys (deposit opening, loan origination, card issuance and management)? To what extent do the publicly available statistics of the Central Bank reflect the real activity of users rather than merely the number of registered accounts? How significant is the differentiation of digital maturity among commercial banks of different ownership forms and business models? What systemic gaps still prevent clients from completing the entire customer journey without visiting a branch? These questions determine both the scientific and the practical relevance of the present study.

The purpose of this article is to comprehensively assess the current state of digital financial services in commercial banks of Uzbekistan, to identify the main quantitative and qualitative trends of their development, and to highlight the existing limitations and structural contradictions. The object of the research is the processes of provision and development of digital financial services by commercial banks of the republic. The subject is the economic, technological, institutional and organisational relations associated with the formation, use and effectiveness of digital channels of banking services.

The scientific novelty of the work lies in the combination of macro-statistical analysis based on official data of the Central Bank of the Republic of Uzbekistan with a micro-level functional audit of eight commercial banks representing different models (state-owned universal, private universal and predominantly digital/ecosystem banks). This dual approach makes it possible not only to describe the general dynamics of the sector, but also to identify meaningful differences in the digital transformation strategies of individual banks. The practical significance of the study is determined by the possibility of using the proposed methodology both for internal diagnostics of banks' digital maturity and for regulatory monitoring of the sector as a whole.

The relevance of the research is further reinforced by several additional circumstances. First, the rapid growth in the number of registered users of remote banking systems creates both opportunities and risks: without a corresponding increase in the quality of service, cybersecurity and the completeness of remote processes, mass digitalisation may lead to an increase in fraud, social engineering and a decline in public trust [7]. Second, the transition to open banking and standardised data exchange requires banks to revise their IT architecture, risk management systems and approaches to client consent. Third, the observed differentiation of digital maturity among banks implies that a single, uniform regulatory approach may be insufficient; differentiated supervisory tools and incentives are needed. Finally, the lack of publicly available microdata on active (as opposed to registered) users, conversion rates of digital products and the economic efficiency of digital channels makes it difficult for both researchers and the regulator to form an objective and complete picture of the transformation process.

Thus, the present study seeks to fill part of this analytical gap by providing a structured assessment of the current state of digital financial services in Uzbekistan's commercial banks, combining quantitative evidence with a qualitative functional evaluation of leading market participants.

2. Materials and Methods

The study is based on a combination of statistical, structural, dynamic, comparative and functional analysis. The main sources of data were official publications of the Central Bank of the Republic of Uzbekistan (payment system statistics, annual reports for 2023–2025, data on users of remote services) [8,9], as well as open materials of commercial banks (descriptions of mobile applications, public agreements, tariffs, financial reports and news on the launch of new services).

To assess the functional maturity of digital channels, a functional audit of eight banks representing different models was conducted: state-owned universal banks (O'zmilliybank, SQB), private universal banks (Hamkorbank, Ipak Yo'li banki, Kapitalbank) and predominantly digital / ecosystem banks (TBC Bank, Anorbank, Uzum Bank). The audit was carried out as of 30 June 2026 on the basis of open sources.

Eight areas were assessed: (1) remote access and personal identification; (2) everyday payments and transfers; (3) card issuance and delivery; (4) remote deposit and loan origination; (5) foreign exchange and international operations; (6) card security management; (7) corporate digital channel; (8) partner services, personal finance management or ecosystem connection. Each area was scored on a scale of 0–2 points (2 – function fully confirmed; 1 – partially confirmed; 0 – no reliable confirmation found). The functional coverage coefficient (FQK) was calculated using the formula: $FQK = (\text{sum of points} / 16) \times 100$.

In addition, the dynamics of key indicators of the payment infrastructure for 2022–2025, volumes of remote banking products in 2024, as well as institutional changes related to the transition to open banking and strengthening of cybersecurity requirements were analysed. When interpreting the data, particular attention was paid to distinguishing between registered and active users, as well as to the difference between the presence of a function in the application and the possibility of fully completing the customer journey without visiting a branch.

The methodological approach is deliberately multi-level. At the macro level, aggregate statistics of the Central Bank are used to identify system-wide trends. At the meso level, the structure of the payment infrastructure and the volumes of remote products are examined. At the micro level, a functional audit of individual banks is conducted in order to identify differences in digital models. This combination makes it possible to avoid both an overly generalised description and an excessively narrow case-study approach. The main limitation of the study is the reliance on open sources: data on active users, conversion rates and cybersecurity incidents are not always published by banks, which constrains the depth of the economic efficiency assessment.

3. Results

The development of digital banking services in Uzbekistan can usefully be viewed as a sequence of qualitatively different stages. At the first stage (1994–2004) automation of interbank settlements and formation of card infrastructure predominated. At the second stage (2005–2017) the network of terminals and ATMs expanded and the first online account management services appeared. The third stage (2018–2020) was characterised by the mass market entry of digital services: mobile applications, electronic money and round-the-clock payments developed actively. The fourth stage (2021–2024) saw the transformation of the mobile channel into the main service tool, expansion of remote identification and growth of banks oriented primarily towards remote service. From 2025 the fifth stage begins, associated with standardised data exchange, a unified QR code, open banking and enhanced cyber protection [10,11].

The number of users of remote banking systems demonstrates steady and high growth. According to the Central Bank, as of 1 January 2021 the figure was 14.57 million people, as of 1 January 2022 – 20.20 million, as of 1 January 2024 – 44.1 million, and as of 1 January 2025 – already 52.92 million. By 1 December 2025 the total number of users reached 79.3 million, of which 77.6 million were individuals and 1.69 million were legal entities and individual entrepreneurs. Thus, over four years the indicator increased more than 3.6 times, and in 2025 alone – by almost 50 % [12].

It is important to emphasise that this indicator reflects the number of registered (connected) users, not active customers who perform operations monthly. One customer may be registered in several banks, and some accounts may remain inactive. Nevertheless, the dynamics clearly indicate a mass transition of the population to digital channels. At the same time, growth in the retail segment significantly outpaces growth in the corporate segment, which points to the predominantly retail nature of the current digital expansion.

A more detailed look at the structure of users reveals several additional patterns. First, the absolute majority of new connections occur in the retail segment; the corporate segment, although growing, remains relatively small in absolute terms. Second, the acceleration of growth in 2024–2025 coincides with the active promotion of mobile applications by several large banks and with regulatory measures aimed at expanding non-cash payments. Third, the gap between the number of registered users and the estimated number of active users (those who perform at least one operation per month) remains significant. International experience suggests that in mature digital banking markets the share of active users typically ranges from 40 % to 70 % of registered users; if a similar ratio applies in Uzbekistan, the pool of truly active digital clients is still substantially smaller than the headline figure of 79.3 million.

In parallel, significant changes have occurred in the payment infrastructure. The data presented in Table 1 allow us to assess the nature of these changes.

Table 1. Changes in payment infrastructure in 2022–2025

Indicator	01.01.2022	01.01.2025	Change, %
Bank cards, million pcs.	27.11	62.00	+128.7
Payment terminals, thousand pcs.	433.38	426.23	–1.7
ATMs and self-service devices, thousand pcs.	12.94	29.91	+131.1
Turnover through terminals, trillion UZS	111.14	326.74	+194.0

Table shows that the number of bank cards and self-service devices more than doubled, while the number of terminals remained almost unchanged. At the same time, turnover through terminals almost tripled. This means that digital transformation is taking place not so much through extensive expansion of devices as through increased intensity of their use and the transfer of part of payments to mobile and QR solutions. Infrastructure efficiency should be measured not by the number of devices, but by the volume of operations per device, continuity of operation and compatibility of different payment systems.

A qualitative shift is also evident in the structure of remote products. In 2024 the volume of operations by individuals through mobile applications amounted to 396.7 trillion UZS (growth of 1.6 times over the year). Remotely issued deposits reached 77.8 trillion UZS, foreign exchange – 36.3 trillion UZS, microloans – 24.4 trillion UZS, and loan repayment operations – 29.7 trillion UZS. These figures show that the mobile channel has already gone beyond simple transfers and has become a full-fledged platform for the sale of banking products. In 2023, 92 % of payment documents of business entities were sent to banks remotely, which indicates that in the corporate segment the digital channel has already become the main working tool[13].

An additional indicator is the spread of QR payments. In 2024 about 108 thousand QR codes were provided to entrepreneurs, through which operations amounting to 441.8 billion UZS were conducted. Although this volume is still small compared to card turnover, the high growth rate and low cost of implementation make QR solutions particularly attractive for small businesses and the self-employed.

The contrast between the stagnation in the number of terminals and the rapid growth in turnover through them deserves special attention. It indicates that the physical acceptance network has largely reached saturation in terms of coverage, while the intensity of use continues to rise. In parallel, the rapid expansion of ATMs and self-service devices reflects the banks' strategy of reducing the load on branches for routine cash

operations and redirecting clients to automated channels. The almost threefold increase in terminal turnover against a virtually unchanged number of devices is one of the strongest indicators of the intensity of digitalisation of payments in Uzbekistan.

To assess the extent to which banks have transferred the customer journey to digital format, a functional audit of eight commercial banks was conducted. The results are presented in Table 2.

Table 2. Results of the functional audit of digital services of selected banks (FQK coefficient)

Bank	Access	Paym.	Card	Dep.	FX	Secur.	Busin.	Partn.	FQK %
Kapitalbank	2	2	2	1	2	2	2	2	93.8
TBC Bank	2	2	2	2	2	2	1	2	93.8
Ipak Yo'li	2	2	2	2	2	1	1	2	87.5
Anorbank	2	2	2	2	1	2	1	2	87.5
SQB	2	2	2	2	1	2	2	0	81.3
O'zmilliybank	2	2	1	2	2	1	2	0	75.0
Uzum Bank	2	2	2	2	0	2	0	2	75.0
Hamkorbank	2	2	2	2	1	1	1	0	68.8

The leaders in functional coverage were Kapitalbank and TBC Bank (93.8 % each) [10]. High scores were also achieved by Ipak Yo'li banki and Anorbank (87.5 %). At the same time, the paths to a high result differ: Kapitalbank combines retail, corporate and ecosystem channels, while TBC Bank initially designed products for a fully remote scenario. State-owned banks (SQB, O'zmilliybank) demonstrate good coverage of basic functions, but lag behind in partner and ecosystem services. This confirms the thesis that digital maturity is not automatically determined by the size of the bank or the form of ownership.

Analysis of the customer journey shows that the greatest gaps arise not in the operations themselves, but at the junction of channels. A customer may start applying for a loan in the application, but to complete the process is offered to visit a branch; a card is ordered remotely, but the delivery status is not tracked; a disputed transaction is resolved only through the call centre. Therefore, the criterion for a full digital service should be the rule: "a process started in the application must be completed in the application".

A more granular reading of the audit results reveals several structural patterns. First, almost all banks have achieved full or near-full coverage of the basic payment and access functions. Second, the largest gaps appear in partner and ecosystem services and, in some cases, in foreign exchange and corporate digital channels. Third, digital-native or ecosystem-oriented banks (TBC Bank, Anorbank, Uzum Bank) tend to score highly on retail remote products but may lag on traditional corporate banking functions. Conversely, large universal banks with a strong branch network often provide solid corporate digital services but are slower to integrate partner ecosystems. These differences suggest that digital maturity should be assessed relative to the bank's chosen business model rather than against a single universal benchmark.

The quantitative and functional results presented above should be interpreted against the background of the evolving institutional framework. Since 2021 the Central Bank and the government have systematically expanded the regulatory perimeter for digital financial services. Key milestones include the introduction of remote identification procedures, the gradual opening of banking interfaces for third-party providers, the launch of a unified QR payment standard, and the adoption of a multi-year cybersecurity strategy. Resolution PQ-359 of 2025 explicitly sets the goal of developing a national FinTech strategy for 2026–2030 and of creating conditions for open banking based on client consent [14].

These measures have two important implications for the current state of digital services. On the one hand, they lower the barriers to innovation and encourage banks to invest in digital channels. On the other hand, they raise the compliance and technology

costs associated with data protection, API security and operational resilience. Banks that have already invested in modern core systems and modular architectures are better positioned to absorb these requirements; banks that still rely on legacy systems face a more difficult and costly transition. The functional audit results partly reflect this divide: higher FQK scores tend to be associated with banks that have pursued digital transformation more consistently over the past five years.

Another institutional factor is the competitive pressure from non-bank FinTech players and digital ecosystems. The emergence of platforms such as Uzum and the expansion of mobile payment solutions have forced traditional banks to accelerate the development of partner services and integrated product offerings. This competitive dynamic helps explain why some private banks have achieved high functional coverage even without the scale advantages of the largest state-owned institutions.

4. Discussion

The data obtained allow several fundamental conclusions to be drawn. First, the banking system of Uzbekistan has successfully passed the stage of mass connection of customers to digital channels. Growth in the number of users by 3.6 times over four years and almost twofold growth in 2025 alone indicate high readiness of the population for remote service. Second, infrastructure growth is predominantly intensive in nature: with an almost unchanged number of terminals, their turnover almost tripled, and the number of cards and self-service devices doubled. This indicates a change in the model of consumption of banking services.

Third, a qualitative transition is observed from simple operations (transfers, payment of utilities) to complex products (deposits, microloans, foreign exchange) issued completely remotely. In 2024 the volume of such products already amounts to tens of trillions of soums. Fourth, banks are forming different digital models: branch-digital, universal, ecosystem and fully digital. Each of them has its advantages and limitations, so a single "rating" of banks by digital maturity should take into account the specificity of the model.

At the same time, systemic limitations remain. The main gap is between the formal presence of a function in the application and the possibility of fully completing the customer journey without visiting a branch. Often the process starts in the application and ends with a requirement to submit documents in person. In addition, open data of banks rarely contain information on active (rather than registered) users, the share of digital sales, the share of unsuccessful operations and cybersecurity indicators. Without these metrics it is impossible to fully assess the economic efficiency of digital transformation.

At the institutional level the system is moving to a stage where open banking, a unified QR code, standardised data exchange and enhanced cyber protection become key. Regulatory documents of 2025–2026 (PQ-359, PF-38, unified QR rules) set the right direction, but practical implementation will require unification of technical standards, client consent mechanisms and clear allocation of responsibility between banks and third parties [15].

Among the stable trends, four should be highlighted. The first is the dominance of the mobile channel as the main point of contact of the client with the bank. The second is the transition from simple payments to a full digital product life cycle (opening, management, closing). The third is the expansion of cooperation between banks and FinTech companies, which accelerates the launch of new services but increases requirements for data management and responsibility. The fourth is the embedding of cybersecurity requirements directly into the service design (multi-factor authentication, behavioural analysis, instant notifications).

Systemic contradictions also persist. Between the rapid growth in the number of registered users and the quality of their active use; between the speed of updating the client interface and the slow modernisation of internal accounting systems; between the expansion of financial inclusion and the growth of new risks (social engineering, fraud, erroneous lending). These contradictions determine the agenda of the next stage of development.

From a theoretical perspective, the findings are consistent with the broader literature on digital banking transformation, which emphasises the distinction between digitisation (the conversion of existing processes into digital form) and digitalisation (the creation of new value propositions based on digital capabilities). Many Uzbek banks have largely completed the digitisation stage for basic payments and account management; the next challenge is genuine digitalisation – the design of end-to-end remote product journeys, the use of data for personalised offerings, and the integration of banking into wider digital ecosystems. The functional audit scores provide an indirect measure of progress along this continuum.

From a policy perspective, the results suggest that the regulator should complement the existing focus on expanding access with a stronger emphasis on quality metrics: the share of fully remote product completions, the ratio of active to registered users, the frequency and severity of cybersecurity incidents, and the economic efficiency of digital channels. Publishing standardised indicators of this type would improve transparency and create stronger incentives for banks to close the remaining gaps in the customer journey.

5. Conclusion

The analysis shows that commercial banks of Uzbekistan are at a transitional stage of digital transformation. The stage of mass coverage of the population with digital channels has largely been completed: the number of users exceeded 79 million, volumes of remote operations are measured in hundreds of trillions of soums, and complex products (deposits, loans) are actively sold through mobile applications. At the same time, infrastructure growth is intensive in nature, which is a positive sign of efficiency.

The functional audit revealed significant differentiation of banks in terms of completeness of the digital customer journey. Leaders demonstrate a high level of coverage, while a number of banks still have gaps in partner services, the corporate channel and security management. The key task of the next stage is to ensure complete remote completion of processes, increase the share of active users, improve cybersecurity and form unified standards for measuring the effectiveness of digital services.

Practical recommendations can be formulated at three levels. For individual banks: prioritise the closure of customer-journey gaps (especially the finalisation of loan and deposit processes without branch visits), invest in the measurement of active users and digital conversion rates, and strengthen the integration of cybersecurity into product design. For the banking community and industry associations: develop common standards for reporting digital maturity indicators and share best practices on open banking and partner ecosystems. For the regulator: expand the set of publicly monitored digital indicators beyond the number of registered users, support the technical standardisation of open banking interfaces, and ensure that cybersecurity requirements are proportionate to the scale and risk profile of different types of banks.

The practical significance of the study lies in the fact that the proposed approach (a combination of Central Bank statistics, functional audit and customer journey analysis) can be used both by banks for internal diagnostics and by the regulator for monitoring the digital maturity of the sector. Further research should be directed at obtaining microdata on active users, the share of digital sales, operational resilience indicators and the impact of digital transformation on the profitability and quality of banks' loan portfolios. Longitudinal studies that track the same set of banks over several years would also help to identify the factors that most strongly accelerate or constrain progress in functional coverage.

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