DIGITAL TRANSFORMATION OF UZBEKISTAN'S BANKING SECTOR: ECONOMIC OPPORTUNITIES, RISKS, AND DEVELOPMENT PROSPECTS

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Abstract: This article examines the processes of digital transformation in the banking sector of the Republic of Uzbekistan during 2020–2026, their macroeconomic and microeconomic implications, and associated structural risks. The study aims to provide a comprehensive economic assessment of the impact of financial technologies, remote banking systems, and payment infrastructure on the operational efficiency of credit institutions and financial inclusion. The methodology combines comparative statistical analysis, an institutional approach, and critical examination of data from the Central Bank of Uzbekistan, the World Bank, the IMF, and commercial bank reports. By October 2025, registered remote banking users reached 74.18 million, while bank cards in circulation exceeded 68.27 million by early 2026. A substantial gap between registered accounts and monthly active users (MAU) is attributed to multibanking and uneven digital literacy. Despite efficiency gains and lower operating costs, rapid digitalization heightens cybersecurity risks (a thirteenfold increase in cybercrime over five years) and threatens digital exclusion among vulnerable groups. Recommendations are proposed for regulators, banks, and fintech companies to balance technological development with financial stability.

Keywords: digital transformation, banking sector, financial technology, digital banking, electronic payments, financial inclusion, Uzbekistan.

Introduction

The banking sector is a key institutional mechanism for transforming savings into investment and ensuring uninterrupted payments in the national economy. Amid global technological restructuring, the traditional model of banking intermediation based on extensive branch networks and manual transaction processing is losing competitiveness. Digital technologies are becoming decisive in reducing transaction costs, accelerating capital turnover, and expanding access to financial services.

In Uzbekistan, financial sector modernization became a strategic priority with the introduction of large-scale economic reforms. Presidential Decree No. UP-5992 of May 12, 2020, "On the Strategy for Reforming the Banking System of the Republic of Uzbekistan for 2020–2025" (Lex.uz), established a transition to market-based lending, reduced state participation in bank capital, and accelerated remote service delivery. According to World Bank estimates, financial institutions' total assets have grown approximately ninefold in nominal terms since 2017, with banks representing about 95% of financial system assets, or 53% of GDP.

The relevance of this research lies in moving beyond quantitative growth in digital services to evaluating their actual economic effectiveness. The rapid emergence of neobanks and major fintech ecosystems has transformed competition while aggravating cybersecurity, personal data protection, and technological resilience challenges.

The study seeks to identify the economic opportunities, systemic risks, and long-term prospects of digital transformation in Uzbekistan's banking sector using empirical data for 2020–2026. Its objectives are to systematize theoretical foundations and financial inclusion effects; analyze digital banking and payment infrastructure while distinguishing registered from active users; assess benefits for banks, firms, and households alongside technological and social risks; and propose evidence-based recommendations on regulation, cybersecurity, and digital financial literacy.

2. Theoretical Foundations of Digital Transformation in Banking

In contemporary economic literature, banking digital transformation means not simply automating individual transactions but fundamentally restructuring business models, organizational culture, and customer interaction through digital platforms and big data analytics. Unlike digitization of paper

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documents, it creates end-to-end processes covering customer identification (e-KYC), credit scoring, disbursement, and servicing without a branch visit.

Financial technology (FinTech) is the primary driver: technological innovation in financial services that produces new business models, applications, processes, or products with significant effects on financial markets and institutions. Key components include mobile and internet banking (remote banking systems), offering round-the-clock access to accounts, deposits, loans, and transfers; and electronic payments, including domestic and international cards, instant payments, QR acquiring, biometric payments, and non-bank e-wallets.

At the microeconomic level, digitalization affects banks through cost curves and economies of scale. Shifting transactions to mobile channels reduces marginal servicing costs by limiting office rental, cash collection, and teller payroll expenses; algorithmic scoring reduces information asymmetry between lenders and borrowers.

At the macroeconomic level, digitalization relates to financial inclusion: access for individuals and enterprises to useful, affordable transactions, payments, savings, credit, and insurance delivered responsibly and sustainably. In Uzbekistan, with a young population and extensive rural territories, mobile banking can overcome the geographic constraints of traditional branch banking.

3. Current State of Digital Banking in Uzbekistan

During 2020–2026, digital financial services in Uzbekistan experienced exceptionally rapid extensive and intensive growth supported by public policy. The 2020–2025 Banking System Reform Strategy and Digital Uzbekistan 2030 established a regulatory basis for remote biometric identification (MyID), the Central Bank's instant payment system, and licensed payment organizations.

Official Central Bank statistics document major expansion of payment infrastructure and remote banking registrations (Table 1).

Table 1. Key Digital Banking and Payment Infrastructure Indicators in Uzbekistan (2020–2026)

Indicator	01.01.2020	01.01.2024	2025/2026	Change
Remote banking users (million)	~10.16	44.00	74.18 (Oct 2025)	7.3×
Individuals (million)	~9.50	~42.60	72.49 (Oct 2025)	7.6×
Legal entities and entrepreneurs (million)	~0.66	~1.40	1.68 (Oct 2025)	2.5×
Bank cards (million)	20.55	~46.20	68.27 (Jan 2026)	3.3×
Payment terminals (thousand)	392.4	~429.3	430.8 (Jan 2026)	+9.8%

Source: Compiled by the author from Central Bank of Uzbekistan statistical bulletins and reports (cbu.uz/ru/statistics/).

Figure 1. Growth in Remote Banking Users and Bank Cards Issued in Uzbekistan (2020–2026).

The 74.18 million remote banking user accounts reported on October 1, 2025 exceed the country's population more than twofold because the regulator counts registrations across banks, rather than unique individuals. A customer may use applications from two to four banks or payment services (multibanking). Registered users must therefore be distinguished from monthly active users (MAU).

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TBC Uzbekistan (TBC Bank and Payme) reported 18.4 million unique registered ecosystem users at the end of 2024, but only 5.9 million MAU (about 32%). By late 2025 registrations reached 23 million, while 708,000 active customers subscribed to TBC Plus and payme plus. The CBU recorded 5.59 million remote banking users for TBC Bank on October 1, 2025.

Uzum Bank recorded 5.90 million individual remote banking users on October 1, 2025, serving around 5 million card customers; the wider Uzum ecosystem exceeded 17 million monthly active users.

Among established universal banks, remote banking registrations on October 1, 2025 were led by People's Bank (8.19 million), Aloqabank (6.28 million), Uzpromstroybank (6.01 million), Ipoteka Bank (4.74 million), Ipak Yuli Bank (4.58 million), and Agrobank (4.28 million). State-owned banks' high figures partly reflect payroll and social benefit projects.

Alongside neobanks including TBC Bank, Anorbank, Uzum Bank, AVO Bank, Hayot Bank, and Yangi Bank, non-bank payment providers such as Click, Payme, and Paynet have popularized instant P2P transfers and one-click utility and government payments.

4. Economic Opportunities of Digitalization

1. Lower bank operating costs (Cost-to-Income Ratio, CIR).

Replacing expensive branches with mobile channels reduces administrative expenditure. Automated retail lending can shorten microloan application decisions from days to 1–3 minutes, lowering origination costs.

2. Faster transactions and capital turnover.

Instant payments, continuous interbank clearing, and QR payments accelerate settlement. Merchants benefit from smaller cash-flow gaps and immediate receipts, strengthening working capital liquidity.

3. Greater financial inclusion.

According to World Bank Global Findex (2021), fewer than 40% of Uzbek adults made a digital payment that year, below Kazakhstan and Georgia. Smartphone growth and remote identification during 2022–2026 brought millions of regional residents, self-employed people, and migrant workers into formal finance, including direct cross-border remittances to Uzcard and Humo cards.

4. Cashless economy and transaction formalization.

Cashless transactions can reduce informality, improve tax collection through integrated online cash registers and payment apps, and reduce the state's cash issuance and servicing expenses.

5. Better conditions for SMEs.

World Bank figures attribute approximately 90% of enterprises, 75% of employment, and 55% of GDP to SMEs. Remote account opening, online accounting, 24/7 B2B payments, and unsecured transaction-based lending improve their access. TBC Bank's business loan portfolio for SMEs and the self-employed reached UZS 1.83 trillion in 2025.

6. Stronger competition.

Private digital banks have prompted historically dominant state-owned banks to modernize IT architecture, improve mobile UX/UI, and offer competitive deposit rates and cashback programs.

5. Major Risks and Challenges

1. Cybersecurity and cybercrime.

Registered cybercrime in Uzbekistan increased thirteenfold over five years, from approximately 4,800 to more than 62,000 cases (UzDaily). Banks face DDoS attacks, API compromise attempts, and mobile app vulnerabilities.

2. Fraud and social engineering.

Many losses arise from phishing links, malicious APK files shared in messengers, impersonation of Central Bank or bank security staff, and unauthorized microloans after SMS code interception rather than direct server compromise.

3. Personal data protection.

Integration with state databases, marketplaces, and scoring platforms increases the risk of leaks of sensitive financial and biometric information, particularly through inadequately protected contractors.

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4. Digital inequality.

Internet quality differs between Tashkent, regional centers, and remote rural areas. Branch consolidation may reduce rural access to complex banking products.

5. Uneven digital and financial literacy.

Older and less educated users may struggle with multifunctional applications, effective interest rates, instant loans, and buy now, pay later (BNPL), making them more susceptible to fraud.

6. Infrastructure dependence.

Concentration in Uzcard and Humo processing, along with dependence on electricity and communications, means a major technical outage could interrupt retail payments nationwide.

6. Discussion and Economic Analysis

Does digitalization always improve banking efficiency?

Not immediately. High capital expenditure (CAPEX) on licenses, servers, cybersecurity, and scarce IT talent can depress short-term profitability. Benefits emerge at sufficient customer scale and transaction intensity. As of October 1, 2025, among 35 operating banks, many smaller institutions had fewer than 100,000–300,000 remote banking users; Banking-as-a-Service (BaaS) may be more economical than maintaining a proprietary ecosystem.

Can digital banking increase financial inequality?

Yes, without inclusive governance. Premature rural branch closures can exclude older or geographically isolated customers. Algorithmic scoring based on digital shopping and card histories can systematically disadvantage informal workers and cash users.

How do digital technologies affect traditional services?

Branches are evolving from cash and transaction centers into advisory hubs for mortgages, corporate finance, and wealth management. Standardized retail services are increasingly embedded in marketplaces and super-apps (embedded finance), as illustrated by Uzum.

What benefits do customers and entrepreneurs receive?

Customers save time, see clearer fees, and gain access to online deposits and loyalty programs. Businesses automate retail operations and financial records. BILLZ, within TBC Uzbekistan, connected 5,500 stores with annual turnover of UZS 17.5 trillion by late 2025, supporting inventory management and paperless financing.

What are the dangers of excessively rapid digitalization?

BIS research suggests that rapid digital retail credit expansion without prudential controls can overheat lending and raise household debt. In Uzbekistan, online microloans and BNPL during 2023–2025 increased debt burdens for some borrowers, prompting tighter debt-service-to-income and microloan concentration limits. The IMF–World Bank FSAP 2025 likewise calls for stronger supervision and asset classification controls.

7. Development Prospects and Recommendations

During 2026–2030, digital banking development is expected to shift from extensive user acquisition toward deeper integration through Open Banking, AI-driven risk management and customer service, and SME-oriented tools. The following measures are proposed:

For the Central Bank of Uzbekistan:

Accelerate secure, consent-based Open API/Open Banking exchange; extend uniform creditworthiness rules to non-bank digital lenders and BNPL platforms to prevent regulatory arbitrage, consistent with FSAP recommendations; and expand supervised regulatory sandboxes.

For commercial banks:

Prioritize retention, MAU/DAU, transaction activity, and lifetime value (LTV) over gross registrations; maintain hybrid “phygital” regional advisory points for elderly and complex corporate customers; and use AI, machine learning, and alternative data for SME underwriting.

For fintech companies:

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Develop specialized SME B2B products such as factoring automation, liquidity management, and export settlement rather than replicating basic P2P transfers; and partner with smaller banks through BaaS to reduce their capital burden.

For cybersecurity:

Implement unified real-time fraud monitoring and interbank sharing of suspicious transactions and money mule accounts through CERT-CBU; introduce cooling-off periods for large online loans and renewed biometric verification after device or phone-number changes.

For digital literacy:

Expand nationwide digital financial safety education on social engineering and responsible borrowing; and provide simplified senior-friendly banking interfaces with enhanced safeguards and trusted-person settings.

Conclusion

The study confirms that Uzbekistan's banking sector underwent a structural shift during 2020–2026 from conventional branch-based banking toward digital ecosystems. Regulatory modernization, competitive neobanks, and national payment systems expanded remote banking to 74.18 million registered accounts and bank cards to 68.27 million. Digitalization helped reduce costs, accelerate payments, formalize retail transactions, and expand SME access to finance.

However, quantitative growth in digital channels does not automatically imply greater efficiency or inclusion. The gap between registrations and active users reflects competition for customer attention under multibanking, while digital lending and remote payments have exposed cyber fraud, retail credit overheating, and urban–rural inequalities.

Long-term stability depends on moving from a race for technological innovation to mature digital risk governance. Prudential supervision, common cybersecurity standards, Open Banking, and systematic digital financial literacy can transform digitalization from a potential vulnerability into a foundation for inclusive economic growth.

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