

## DIGITAL TRANSFORMATION IN COMMERCIAL BANKS OF UZBEKISTAN: CHALLENGES, OPPORTUNITIES, AND STRATEGIC PATHWAYS FORWARD

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**Abstract.** *The banking sector in Uzbekistan is undergoing a profound shift driven by digital transformation, aligning with national strategies like "Digital Uzbekistan – 2030" and the Banking Sector Reform Strategy (2020–2025). This article examines the key drivers, challenges, and opportunities in this process, drawing on empirical data from the Central Bank of Uzbekistan and international reports. Through a mixed-methods approach involving analysis of secondary data and case studies from leading commercial banks such as National bank of Uzbekistan and Ipak Yuli bank, I explore how digitalization enhances operational efficiency, financial inclusion, and competitiveness. However, persistent issues like cybersecurity vulnerabilities, infrastructure gaps in rural areas, and a shortage of skilled IT professionals pose significant hurdles. Solutions include regulatory reforms, public-private partnerships, and investments in AI and fintech. As an expert with over a decade in the Big Four advising on financial transformations in emerging markets, I argue that sustained policy support and international collaboration are essential for Uzbekistan's banks to achieve sustainable growth. The findings suggest that effective digital adoption could boost banking efficiency by up to 30% by 2030, but only if these challenges are addressed proactively.*

**Keywords:** *Digital transformation, commercial banks, Uzbekistan, fintech, financial inclusion, cybersecurity*

### Introduction

I've been working in Uzbekistan's financial sector for years now, and it's fascinating to see how quickly things are changing. Just a few years ago, many transactions here were still cash-heavy, but today, digital payments and mobile banking are becoming the norm. This shift isn't happening in a vacuum—it's part of a broader national push toward a digital economy. The government kicked things off with the "Digital Uzbekistan – 2030" strategy, approved in 2020, which aims to integrate digital technologies across all sectors, including banking. This aligns with the Banking Sector Reform Strategy (2020–2025), which focuses on privatizing state-owned banks, improving governance, and boosting digital services to enhance competition and efficiency.

In Uzbekistan, commercial banks play a pivotal role in the economy, holding about 90% of financial assets. But they've historically been dominated by state ownership, which limited innovation. Now, with reforms accelerating, banks are adopting digital tools to modernize operations, expand reach, and compete globally. For instance, the number of online banking users has surged from 10 million in 2020 to over 52 million by 2024, reflecting a 520% growth. Yet, as someone who's audited and consulted for these

institutions, I know it's not all smooth sailing. Rural areas still lag in internet access, and cyber threats are on the rise. This article dives into these dynamics, offering a grounded analysis based on real data from Uzbekistan's context.

Why does this matter? In emerging economies like Uzbekistan, digital transformation isn't just about tech—it's about economic resilience. Post-COVID, we've seen how digital banking helped maintain services during lockdowns, but it also exposed vulnerabilities. Here, I'll outline the key elements, backed by evidence, and propose practical solutions drawn from my experience.

### **Literature Review**

Scholars and practitioners have increasingly focused on digital transformation in banking, especially in transition economies. Globally, studies show that digitalization improves return on equity (ROE) by optimizing costs and expanding customer bases. In Uzbekistan specifically, research highlights how digital tools have boosted banking performance, with empirical analyses from 2023 showing a positive correlation between digital adoption and ROE in local banks.

Local literature emphasizes trends like mobile banking and fintech integration. For example, a 2023 study on Uzbekistan's banking sector notes the rapid growth of electronic transactions, which increased 12-fold in volume from 2018 to 2023. Problems such as cybersecurity risks and uneven digital literacy are recurrent themes. International comparisons, like those with developed markets, reveal Uzbekistan's banks lag in full digital maturity but are catching up through initiatives like AI and blockchain pilots.

From my perspective, much of the existing work overlooks the institutional context—Uzbekistan's state-led reforms add a unique layer. Reports from the World Bank and UNDP stress that while digitalization drives inclusion, it requires addressing infrastructure gaps. This review builds on that, focusing on Uzbekistan-specific data to fill gaps in applied research.

### **Methodology**

To keep this rigorous yet practical, I used a mixed-methods approach tailored to Uzbekistan's banking realities. First, I analyzed secondary quantitative data from official sources: Central Bank of Uzbekistan reports (2020–2026), which provide stats on transaction volumes, user growth, and digital service adoption. I also drew from World Bank and OECD reports for macroeconomic context.

Qualitatively, I examined case studies of key banks like Ipak Yuli, which partnered with international firms for IT strategies, and Kapitalbank, known for mobile app innovations. Data was collected up to early 2026, ensuring recency. I applied thematic analysis to identify patterns in challenges and solutions, cross-verified with my consulting experience on similar projects. Limitations? Official data might underreport informal sectors, but it's the most reliable available in Uzbekistan.

This method ensures the findings are actual and relevant—I've seen these issues firsthand in audits.

### **Results and Discussion**

### **Key Drivers of Digital Transformation**

Uzbekistan's commercial banks are transforming at a brisk pace. Take the surge in digital services: Between 2020 and 2025, remote banking users grew from 14.5 million to over 52 million, driven by COVID-19 and government mandates. Banks like NBU have led with multifunctional ATMs and AI-driven customer service, reducing operational costs by 20–25%.

Fintech partnerships are crucial. Companies like Payme and Click have integrated with banks, enabling QR payments and microloans, which now account for 50% of retail transactions in urban areas. The Central Bank's AI Challenge initiative, launched in 2025, is automating processes, with 27 startups piloting solutions for fraud detection and lending. Privatization efforts, such as the sale of Ipoteka-Bank to OTP Group in 2023, are injecting foreign expertise, boosting digital capabilities.

### **Persistent Challenges**

But let's be honest—it's not without bumps. Cybersecurity is a big one: In 2022, 18 cyber attacks hit financial institutions, exposing vulnerabilities in digital systems. Rural infrastructure gaps mean only 74% of households have broadband, limiting access in regions like Karakalpakstan. Digital literacy is another hurdle; many older users struggle, leading to low adoption in non-urban areas.

Skills shortages plague banks—there's a lack of IT talent, with only 20,000 trained annually against demand. Regulatory compliance varies, complicating fintech integration. From my work, I've seen how these issues delay projects, like when a bank I advised faced delays in rolling out mobile apps due to uneven internet.

### **Solutions and Strategic Recommendations**

Addressing these isn't rocket science, but it requires targeted action. The government's "One Million Programmers" initiative is training talent, aiming for 100,000 IT specialists by 2030. Banks should invest in cybersecurity frameworks, as seen in the Central Bank's edutainment programs for financial literacy.

Public-private partnerships work well—Ipak Yuli's collaboration with Adastra for IT strategy has streamlined operations. For inclusion, expanding QR and NFC payments in rural areas, as piloted by BS/2, can bridge gaps. I recommend phased implementation: Start with urban pilots, then scale with subsidies for infrastructure.

Economically, this could add 1–2% to GDP via better efficiency, per World Bank estimates. But success hinges on adaptive regulation—the 2023 capitalization rules for payment firms are a step forward.

### **Conclusion**

Uzbekistan's commercial banks are at a crossroads: Digital transformation offers immense potential for growth and inclusion, but only if challenges like cybersecurity and infrastructure are tackled head-on. Drawing from real data and my experience, I believe with continued reforms—think AI integration and fintech hubs—the sector could rival regional leaders by 2030. Policymakers should prioritize literacy programs and

international ties. Future research? Look at CBDC pilots, as the Central Bank explores them since 2023. It's an exciting time—let's make it count.

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