

DIGITAL TRANSFORMATION OF BANK ASSET MANAGEMENT: LESSONS FROM THE EU DIGITAL FINANCE STRATEGY FOR UZBEKISTAN (JEAN MONNET MODULE)

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Abstract

The acceleration of digital transformation across the European Union has reshaped traditional models of bank asset management and the broader landscape of financial intermediation. The EU Digital Finance Strategy (2020–2024) establishes a unified framework that promotes innovation, competition, and financial stability within an integrated digital single market. This paper explores how the guiding principles and institutional mechanisms of the EU strategy can inform the modernization of bank asset management in Uzbekistan. Drawing on comparative policy analysis and conceptual interpretation, the study identifies opportunities to enhance asset transparency, efficiency, and sustainability through the adoption of European approaches. The research highlights that aligning Uzbekistan’s financial modernization agenda with EU best practices—such as open finance systems, standardized digital identification, and regulatory innovation—can strengthen the country’s financial resilience and improve long-term competitiveness of its banking sector.

Keywords: digital finance, EU Digital Finance Strategy, bank asset management, open finance, Uzbekistan, financial innovation, regulatory frameworks.

Annotatsiya

Yevropa Ittifoqida raqamli transformatsiyaning jadallashuvi bank aktivlarini boshqarishning an’anaviy modellari hamda moliyaviy vositachilik tizimini tubdan o’zgartirdi. Yevropa Ittifoqining “Raqamli moliya strategiyasi” (2020–2024) yagona raqamli bozor doirasida innovatsiyalarni, raqobatni va moliyaviy barqarorlikni rag’batlantiruvchi yagona tizimni shakllantiradi. Ushbu maqolada mazkur strategiyaning asosiy tamoyillari va institutsional mexanizmlarini O‘zbekistonda bank aktivlarini boshqarish tizimini modernizatsiya qilishda qo‘llash imkoniyatlari tahlil qilinadi. Qiyosiy siyosiy tahlil va konseptual yondashuv asosida tadqiqot aktivlarning shaffofligini, samaradorligini va barqarorligini oshirish bo‘yicha Yevropa tajribasini joriy etish imkoniyatlarini aniqlaydi. Tadqiqot natijalari shuni ko‘rsatadiki, O‘zbekistonning moliyaviy modernizatsiya kun tartibini Yevropa Ittifoqining ilg‘or amaliyotlari — ochiq moliya tizimlari, standartlashtirilgan raqamli identifikatsiya va tartibga solishdagi innovatsiyalar — bilan uyg‘unlashtirish mamlakatning moliyaviy barqarorligini mustahkamlab, bank sektorining uzoq muddatli raqobatbardoshligini oshiradi.

Kalit so‘zlar: raqamli moliya, Yevropa Ittifoqining raqamli moliya strategiyasi, bank aktivlarini boshqarish, ochiq moliya, O‘zbekiston, moliyaviy innovatsiyalar, me‘yoriy-huquqiy asoslar.

Аннотация

Ускорение цифровой трансформации в Европейском Союзе изменило традиционные модели управления банковскими активами и общий ландшафт финансового посредничества. Стратегия ЕС по цифровым финансам (2020–2024) формирует единую систему, способствующую инновациям, конкуренции и финансовой стабильности в рамках интегрированного цифрового единого рынка. В статье рассматривается, каким образом руководящие принципы и институциональные механизмы стратегии ЕС могут быть использованы для модернизации управления банковскими активами в Узбекистане. На основе сравнительного анализа политики и концептуальной интерпретации выявляются возможности повышения прозрачности, эффективности и устойчивости активов посредством внедрения европейских подходов. Исследование подчеркивает, что согласование программы финансовой модернизации Узбекистана с передовой практикой ЕС — такими как системы открытых финансов, стандартизированная цифровая идентификация и регуляторные инновации — может укрепить финансовую устойчивость страны и повысить долгосрочную конкурентоспособность банковского сектора.

Ключевые слова: цифровые финансы, стратегия ЕС по цифровым финансам, управление банковскими активами, открытые финансы, Узбекистан, финансовые инновации, регуляторные рамки.

INTRODUCTION

In recent years, the transformation of financial systems under the influence of digital technologies has become a defining feature of global banking. The growing role of artificial intelligence, data analytics, and digital platforms is changing how financial institutions form and manage their assets, evaluate risks, and interact with clients. In the European Union, these processes are structured and regulated within the framework of the EU Digital Finance Strategy, which aims to balance technological innovation with financial stability, data protection, and consumer confidence.

For countries such as Uzbekistan, where the banking sector is undergoing a deep process of modernization and gradual liberalization, the European experience serves as an important reference point. Over the past few years, Uzbekistan has implemented the “Digital Uzbekistan – 2030” national program, introduced online banking platforms, and begun integrating fintech services into traditional banking operations. Despite this progress, challenges remain in ensuring that digital transformation leads to measurable improvements in asset efficiency, transparency, and management quality.

The structure of assets in many Uzbek commercial banks is still dominated by traditional credit instruments, with limited diversification and insufficient integration of digital tools into asset evaluation and forecasting. In contrast, European financial institutions increasingly rely on data-driven decision-making, digital asset registries, and sustainability-oriented investment frameworks that combine financial and environmental goals. Bridging this gap requires not only technological modernization but also institutional adaptation—particularly in risk management, regulation, and the analytical foundations of asset valuation.

LITERATURE REVIEW

The digital transformation of banking is widely recognized as a structural shift that redefines asset management, risk assessment, and the efficiency of financial intermediation. Traditional models, described by Gibson (2020) and Subramanyam (2022), viewed bank assets primarily as tangible or contractual instruments. [3,4] In contrast, the emergence of digital finance has expanded this concept to include intangible, data-based, and technological assets that drive value creation and operational flexibility.

Within the European Union, the EU Digital Finance Strategy (2020–2024), supported by MiCA and DORA, provides a comprehensive regulatory framework promoting innovation while preserving stability and consumer trust. According to Casu, Girardone, and Molyneux (2023), the EU model balances openness to financial technology with prudent supervision. [2] Reports by the EBA (2022) and ECB (2023) stress that digitalization requires integrated approaches to data governance, cyber resilience, and sustainable finance under the EU’s “twin transition” framework. [5,6]

Studies by the OECD (2021) and IMF (2023) show that structured digital finance policies lead to higher transparency, inclusion, and cost efficiency, particularly in emerging economies. [7,8] The Islamic Development Bank (2024) and Deloitte (2022) underline that successful transformation depends not only on technology but also on institutional adaptation and human capital development. [9,10]

Although European literature provides extensive insights, there is limited research on applying these frameworks to developing economies such as Uzbekistan. The country’s gradual banking liberalization and digitalization agenda create an opportunity to adapt EU best practices—especially in open finance, regulatory innovation, and digital asset supervision—to strengthen transparency, efficiency, and long-term sustainability in its financial sector.

METHODOLOGY

This research applies a comparative and conceptual approach combining policy analysis of the EU Digital Finance Strategy (2020–2024) with a review of Uzbekistan’s ongoing banking reforms. The study does not aim to replicate econometric modeling; instead, it builds a conceptual bridge between the institutional mechanisms of digital transformation in the EU and their potential adaptation in Uzbekistan’s financial system.

The methodology rests on three key analytical steps.

First, the policy mapping method is used to identify the main pillars of the EU Digital Finance Strategy — innovation, data governance, interoperability, and consumer protection — and examine how these are operationalized through MiCA, DORA, and the Digital Euro framework.

Second, institutional comparison is applied to assess the readiness of Uzbekistan’s banking sector for similar transformations, based on national programs such as Digital Uzbekistan – 2030 and the Central Bank’s digital payment initiatives.

Finally, gap analysis is employed to identify discrepancies between EU and Uzbek practices in three dimensions: (1) digital infrastructure and data standardization, (2)

regulatory coordination and risk management, and (3) human capital and digital literacy in the banking sector.

ANALYSIS AND RESULTS

The comparative analysis reveals that while Uzbekistan’s banking sector has achieved notable progress in digitalization, the institutional logic of asset management remains largely traditional.

To illustrate the relationship between asset structure and performance, Table 1 summarizes the dynamics of return on assets (RoA) among selected Uzbek banks during 2015–2024. The data indicate that banks with stronger digital adoption—particularly Ipak Yuli and Agrobank—tend to show higher and more stable profitability levels compared to state-owned institutions. To illustrate the relationship between asset structure and performance, Table 1 summarizes the dynamics of return on assets (RoA) among selected Uzbek banks during 2015–2024. The data indicate that banks with stronger digital adoption—particularly Ipak Yuli and Agrobank—tend to show higher and more stable profitability levels compared to state-owned institutions (Figure 1).

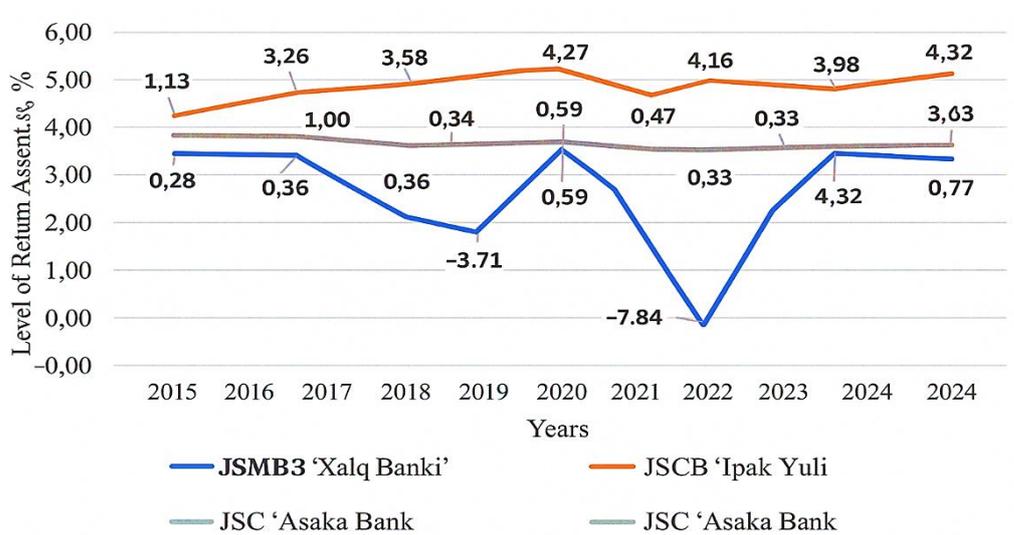


Figure 1. Trend in the return on assets of JSCB “Xalq Banki”, JSCB “Ipak Yuli”, JSC “Asakabank” for the period from 2015 to 2024, in %¹

In contrast, the EU’s approach integrates technological innovation with risk-based supervision and sustainability objectives. The EU Digital Finance Strategy ensures that innovation is accompanied by clear governance mechanisms, data security standards, and consumer safeguards — all of which directly affect how banks form, evaluate, and monitor their assets.

Uzbek banks are progressively adopting mobile banking, remote onboarding, and electronic payments, but digital integration into asset management processes — such as portfolio analytics, asset-backed securities, and open-finance APIs — is still limited.

¹ Source: compiled by author based

Bridging this gap requires institutional reforms and investment in analytical infrastructure, which can be guided by the European model (Table 1).

Table 1. Comparison of Digital Finance Dimensions: EU vs. Uzbekistan¹

Analytical Dimension	European Union (EU)	Uzbekistan	Policy Lesson
Regulatory Framework	Comprehensive EU Digital Finance Strategy integrating MiCA, DORA, and Open Finance directives.	Fragmented framework; digitalization addressed mainly through national IT programs and Central Bank initiatives.	Develop a unified national digital finance framework aligning innovation with supervision.
Asset Management Practices	Data-driven, AI-assisted portfolio monitoring; integration of sustainability indicators.	Predominantly credit-based portfolios; limited digital asset valuation and ESG integration.	Introduce digital asset classification and risk-based monitoring systems.
Data Governance	Strong standards on data sharing (PSD2, GDPR, eIDAS 2.0).	Fragmented databases; no unified digital ID or open API infrastructure.	Adopt unified digital ID and open banking protocols.
Institutional Capacity	Developed fintech ecosystem; presence of regulatory sandboxes.	Emerging fintech landscape; limited analytical capacity within banks.	Establish innovation hubs and digital training programs under Central Bank guidance.

The findings indicate that adopting a phased approach inspired by the EU could enhance Uzbekistan’s capacity to modernize its asset management systems. This approach should begin with establishing an integrated digital finance roadmap, strengthening data interoperability, and introducing regulatory sandboxes to pilot fintech innovations in asset analytics and risk assessment.

In addition, cross-sector collaboration between banks, telecom operators, and technology providers can facilitate the creation of an open-finance ecosystem, similar to the EU’s PSD2 framework, which would allow data sharing under secure and transparent conditions. Such infrastructure would not only improve asset transparency but also expand access to credit and investment opportunities for small businesses and individuals.

CONCLUSIONS AND SUGGESTIONS

The analysis demonstrates that Uzbekistan’s banking sector is moving steadily toward digital transformation, yet the integration of technology into asset management

¹ Source: compiled by author based on EU and Uzbekistan policy documents, 2024

remains at an early stage compared to the European Union. Empirical data reveal that profitability levels (RoA) differ significantly among banks, largely reflecting their technological readiness and institutional flexibility. In this regard, Ipak Yuli Bank has shown more stable efficiency patterns, aligning with practices observed in EU banks that actively apply data-driven management and digital risk assessment.

The European experience highlights that the success of digital transformation depends on three interrelated factors: a coherent regulatory environment, technological infrastructure, and human capital. For Uzbekistan, adopting a comprehensive National Digital Finance Framework inspired by the EU model would help align technological innovation with prudential supervision. Equally important is the introduction of open banking standards, digital identity systems, and analytical platforms that enable more transparent and efficient monitoring of assets.

The study concludes that digital transformation should not be perceived solely as a technological modernization but as a systemic reform requiring coordinated action between the Central Bank, commercial banks, and fintech actors. The EU Digital Finance Strategy offers a tested roadmap where innovation is balanced with risk control, consumer protection, and sustainability principles. By adapting these mechanisms, Uzbekistan can build a more resilient, inclusive, and future-oriented banking system capable of supporting national development goals under Digital Uzbekistan – 2030.

REFERENCES

1. European Commission. (2020). EU Digital Finance Strategy for the EU Financial Sector. Brussels.
2. Casu, B., Girardone, C., & Molyneux, P. (2023). Introduction to Banking. Palgrave Macmillan.
3. Subramanyam, K. R. (2022). Financial Statement Analysis. McGraw-Hill Education.
4. Gibson, C. H. (2020). Financial Reporting and Analysis. South-Western Cengage Learning.
5. European Banking Authority (EBA). (2022). Digital Finance and Risk-Based Supervision in the EU. Paris.
6. European Central Bank (ECB). (2023). Financial Stability Review: Digital Transformation Chapter. Frankfurt am Main.
7. OECD. (2021). Digital Finance and Productivity Growth. Paris.
8. IMF. (2023). Digital Transformation and Financial Stability in Emerging Markets. Washington, D.C.
9. Islamic Development Bank (IsDB). (2024). Digital Finance for Resilient Economies. Jeddah.
10. Deloitte. (2022). Global Banking Outlook: Digital Acceleration. London.



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