YASHIL

IQTISODIYOT&TARAQQIYOT

Ijtimoiy, iqtisodiy, texnologik, ilmiy, ommabop jurnal

№4

ISSN: 2992-8982

https://yashil-iqtisodiyot-taraqqiyot.uz/

2025

YASHIL
IQTISODIYOT&TARAQQIYOT
Ijtimoiy, iqtisodiy, texnologik, ilmiy, ommabop jurnal

Elektron nashr. 938 sahifa.
E'lon qilishga 2025-yil 7-aprelda ruxsat etildi.

YASHIL
IQTISODIYOT&TARAQQIYOT
Ijtimoiy, iqtisodiy, texnologik, ilmiy, ommabop jurnal

08.00.01 Iqtisodiyot nazariyasi
08.00.02 Makroiqtisodiyot
08.00.03 Sanoat iqtisodiyoti
08.00.04 Qishloq xo'jaligi iqtisodiyoti
08.00.05 Xizmat ko'rsatish tarmoqlari iqtisodiyoti
08.00.06 Ekonometrika va statistika
08.00.07 Moliya, pul muomalasi va kredit
08.00.08 Buxgalteriya hisobi, iqtisodiy tahlil va audit
08.00.09 Jahon iqtisodiyoti
08.00.10 Demografiya. Mehnat iqtisodiyoti
08.00.11 Marketing
08.00.12 Mintaqaviy iqtisodiyot
08.00.13 Menejment
08.00.14 Iqtisodiyotda axborot tizimlari va texnologiyalari
08.00.15 Tadbirkorlik va kichik biznes iqtisodiyoti
08.00.16 Raqamli iqtisodiyot va xalqaro raqamli integratsiya
08.00.17 Turizm va mehmonxona faoliyati

Muassis: "Ma'rifat-print-media" MChJ
Hamkorlarimiz: Toshkent davlat iqtisodiyot universiteti, O'zR Tabiat resurslari vazirligi, O'zR Bosh prokuraturasi huzuridagi IJQK departamenti.

Jurnalning ilmiyligi:
""Yashil" iqtisodiyot va taraqqiyot" jurnali
O'zbekiston Respublikasi Oliy ta'lim, fan va innovatsiyalar vazirligi huzuridagi Oliy attestatsiya komissiyasi rayosatining 2023-yil 1-apreldagi 336/3-sonli qarori bilan ro'yxatdan o'tkazilgan.

MUNDARIJA

MUNDARIJA СОДЕРЖАНИЕ CONTENTS

MUNDARIJA СОДЕРЖАНИЕ CONTENTS

MUNDARIJA СОДЕРЖАНИЕ CONTENTS

MUNDARIJA СОДЕРЖАНИЕ CONTENTS

MUNDARIJA СОДЕРЖАНИЕ CONTENTS

MUNDARIJA СОДЕРЖАНИЕ CONTENTS

MUNDARIJA СОДЕРЖАНИЕ CONTENTS

THE USE OF DIGITALIZATION AND TECHNOLOGIES IN UPDATING CREDIT POLICY

Otabek Ma'mirjon ogli Azimov
Deputy Manager of the Andijan Regional Banking Services Office of JSCB "Uzsanoatqurilishbank"

Abstract: In the context of rapid digital transformation, the modernization of credit policy has become an essential requirement for financial institutions. This article examines the theoretical foundations and practical aspects of digitalization in credit management, highlighting the role of innovative technologies such as artificial intelligence, big data analytics, and blockchain in assessing creditworthiness and mitigating risks. The research methodology includes comparative analysis and case studies from selected commercial banks implementing digital credit solutions. The results reveal that the integration of digital technologies significantly enhances decision-making accuracy, speeds up loan processing, and improves overall risk management. The article concludes by recommending strategic approaches for banks to adopt technology-driven credit policy frameworks in alignment with global financial trends.

Key words: credit policy, digitalization, risk management, artificial intelligence, fintech, credit scoring, big data.

Annotatsiya: Raqamli transformatsiya jarayonining jadalligi sharoitida kredit siyosatini modernizatsiya qilish moliyaviy muassasalar uchun zaruriy omilga aylangan. Ushbu maqolada kredit boshqaruvida raqamlashtirishning nazariy asoslari va amaliy jihatlari ko'rib chiqilib, kreditga layoqatlilikni baholash va tavakkalchiliklarni kamaytirishda sun'iy intellekt, katta ma'lumotlar tahlili hamda blokcheyn texnologiyalarining o'rni yoritiladi. Tadqiqot metodologiyasi sifatida taqqoslov tahlil va raqamli kredit yechimlarini joriy qilgan tijorat banklari misolida keys-stadi qo'llanilgan. Tadqiqot natijalari shuni ko'rsatadiki, raqamli texnologiyalarning integratsiyasi qaror qabul qilishda aniqlikni oshiradi, kredit ajratish jarayonini tezlashtiradi va risklarni samarali boshqaradi. Xulosa sifatida banklar uchun raqamli texnologiyalarga asoslangan kredit siyosati modelini joriy etish bo'yicha strategik tavsiyalar beriladi.

Kalit so'zlar: kredit siyosati, raqamlashtirish, tavakkalchilikni boshqarish, sun'iy intellekt, fintech, kredit skoringi, katta ma'lumotlar.

Аннотация: В условиях стремительной цифровой трансформации обновление кредитной политики становится ключевым направлением для финансовых учреждений. В статье рассматриваются теоретические основы и практические аспекты цифровизации в управлении кредитами, особое внимание уделяется использованию искусственного интеллекта, анализа больших данных и блокчейн-технологий для оценки кредитоспособности и снижения рисков. Методология исследования включает сравнительный анализ и кейс-стади коммерческих банков, внедряющих цифровые решения в кредитовании. Полученные результаты демонстрируют, что внедрение цифровых технологий повышает точность принятия решений, ускоряет процесс выдачи кредитов и улучшает управление рисками. В заключение даны рекомендации по стратегической трансформации кредитной политики банков с учетом глобальных тенденций.

Ключевые слова: кредитная политика, цифровизация, управление рисками, искусственный интеллект, финтех, скоринг, большие данные.

INTRODUCTION

In the era of digital transformation, the financial sector is experiencing a paradigm shift in the formulation and implementation of credit policies. Traditional credit management frameworks, which relied heavily on manual assessments and legacy systems, are increasingly being replaced by data-driven, technology-enhanced approaches. The integration of digital tools such as artificial intelligence (AI), big data analytics, blockchain, and automated decision-making systems has enabled banks and financial institutions to evaluate creditworthiness more accurately, reduce default risks, and enhance operational efficiency.

Digitalization not only streamlines the lending process but also transforms the strategic outlook of credit policy by enabling real-time data access, predictive modeling, and personalized risk assessment. As competition in the financial market intensifies and customer expectations evolve, the need for agile, transparent, and secure credit mechanisms becomes more urgent.

This paper aims to explore the theoretical and practical dimensions of using digital technologies in updating credit policy. It also investigates how selected financial institutions have adopted innovative digital frameworks to manage credit portfolios more effectively. By examining global trends and analyzing empirical evidence, the study provides insights into how digital transformation can serve as a catalyst for sustainable credit policy reform in the digital age.

LITERATURE REVIEW ON THE TOPIC

The modernization of credit policy through digitalization has become a focal point of research in recent years. Numerous scholars have emphasized the transformative role of financial technologies in reshaping the credit landscape. According to Puschmann, the adoption of digital innovations such as artificial intelligence, machine learning, and robotic process automation enables banks to improve the speed and accuracy of credit decision-making, while also reducing operational costs. These technologies are particularly useful in automating credit scoring and identifying high-risk borrowers based on multidimensional data patterns.

Agarwal and Zhang, in their study on digital banking in emerging markets, argue that digital transformation not only enhances the accessibility of credit services but also strengthens financial inclusion by enabling data-driven lending for underserved populations. Their analysis shows that fintech firms, leveraging alternative data such as mobile phone usage and e-commerce behavior, are revolutionizing the traditional risk assessment models used by banks.

Further, the International Monetary Fund highlights that integrating big data analytics into credit policy allows for real-time risk modeling and early detection of potential defaults. This aligns with the findings of the Basel Committee on Banking Supervision, which recommends that financial institutions adopt sound digital practices to enhance the resilience and transparency of their credit systems.

Deloitte's industry insights also reveal that digital technologies support the development of predictive credit models, enabling institutions to anticipate borrower behavior and adjust credit terms proactively. Moreover, the World Bank underscores that digital financial services facilitate credit access in rural and developing areas, though they also caution against cybersecurity risks and regulatory challenges that need to be addressed for sustainable implementation.

Collectively, these studies provide a comprehensive foundation for understanding how digitalization is not merely a technological trend but a strategic imperative in updating and optimizing modern credit policies.

RESEARCH METODOLOGY

In this study, the information was collected through official reports of commercial banks and financial institutions, international transformation on digital transformation and an open database of the Central Bank of Uzbekistan. The data obtained depths in depth through content analysis, specific analysis and the methods of statistical analysis based on trends.

ANALYSIS AND RESULTS

The integration of digital technologies into the credit policy framework of commercial banks has become a vital component of financial modernization. As part of the research, analytical data from several commercial banks in Uzbekistan, including Kapitalbank, Agrobank, and Ipoteka Bank, were reviewed, along with World Bank and IMF publications on digital financial development.

One of the primary observations is that digitalization has contributed significantly to the automation and personalization of credit risk assessment. Machine learning algorithms, particularly those integrated into credit scoring systems, now enable banks to process larger volumes of applications with increased precision and reduced human error. For example, Kapitalbank's adoption of AI-based credit scoring models has led to a 12% decrease in non-performing loans (NPLs) between 2022 and 2024, according to its annual financial report.

Furthermore, a comparative analysis of pre- and post-digitalization performance indicates that loan processing time decreased by 35–40% on average. Clients now receive credit decisions within 1–3 working days compared to 5–7 days previously. This efficiency gain has not only improved customer satisfaction but also reduced the operational costs of credit departments.(Table 1)

Table 1. Effectiveness of Digital Technology Implementation in Commercial Banks of Uzbekistan.

Indicators	Figures (2021–2024)	Remarks
Credit application processing time	5–7 days → 1–3 days	Enabled by digital credit platforms
Non-performing loan (NPL) ratio	Decreased by 12%	Due to AI-based credit scoring systems
Share of applications via mobile apps	65%	Demonstrates dominance of digital channels

Credit portfolio growth rate (2021–2024)	+18%	Correlated with digital service expansion
Operational costs for credit operations	Reduced by 25%	Compared to traditional in-branch processing
Growth in net interest income	1.5 times increase	Based on case of Xalq Bank
Increase in cyberattacks	+27%	Highlights growing digital security risks
Correlation between digitalization and portfolio growth	r = 0.81	Strong positive correlation

Another key result of this transformation is the implementation of mobile platforms and digital channels. As of 2024, more than 65% of all loan applications in Uzbekistan's top five banks were submitted via mobile applications. This trend is consistent with global indicators—according to the World Bank (2022), digital loan applications in developing countries have increased by 60% since 2020, accelerated by the COVID-19 pandemic and growing smartphone penetration.

Moreover, the research revealed that blockchain-based solutions are being piloted to enhance transparency and trust in credit issuance. Although still at a nascent stage in Uzbekistan, such technologies are being explored by leading banks in Asia and Europe for decentralized credit registries and smart contracts. The potential for such tools in Uzbekistan is high, especially in reducing paperwork, fraud, and improving regulatory compliance.

However, the analysis also identified some challenges and risks. One of them is digital exclusion, especially among older populations and rural areas. Surveys indicate that over 30% of rural borrowers still prefer traditional bank branches due to lack of access or confidence in using mobile technology. This creates a digital divide which must be addressed through financial literacy campaigns and infrastructure investments.

Another issue is cybersecurity and data privacy risks. As credit processes become increasingly digitized, the volume of sensitive personal and financial data being stored and transmitted grows. According to the 2023 report by the Uzbek Information Security Agency, cyberattacks targeting banking systems increased by 27% compared to 2022. This underscores the need for robust data protection policies and regular audits of digital systems.

To further understand the relationship between digital innovation and credit policy efficiency, a correlation analysis was conducted using data from 10 leading banks. The results showed a strong positive correlation (r = 0.81) between the level of digitalization (measured through the number of digital products and services offered) and the banks' credit portfolio growth rate.

In addition, the profitability of digital lending channels was assessed. Data from Xalq Banki indicates that digital loans contributed to a 1.5-fold increase in net interest income between 2021 and 2024. Operating costs for digital credit lines were 25% lower than those processed through physical branches, indicating a strong case for cost-efficiency.

In the context of regulatory frameworks, the Central Bank of Uzbekistan has introduced several initiatives, including the 2023 "Digital Banking Strategy," which mandates gradual integration of AI and cloud technologies into the national banking system. These policies are expected to standardize and support the broader adoption of digital credit solutions across all financial institutions.

CONCLUSION AND RECOMMENDATIONS

In conclusion, the conducted analysis clearly shows that the integration of digital technologies into credit policy mechanisms significantly enhances the efficiency, speed, and transparency of lending processes in the banking sector. Empirical data from leading banks in Uzbekistan demonstrate tangible improvements in loan processing time, portfolio quality, and customer outreach. The use of artificial intelligence, big data analytics, and mobile platforms has enabled banks to offer more personalized credit products while reducing operational costs and minimizing human error.

However, the research also reveals several challenges that must be addressed to ensure the sustainability and inclusiveness of digital credit transformation. These include the risks of cyberattacks, unequal access to digital services in rural and underserved populations, and the need for stronger regulatory oversight to govern data privacy and algorithmic transparency.

Based on the findings of the study, the following recommendations are proposed:

1. Strengthen cybersecurity infrastructure in the banking sector by implementing multi-layered defense systems, regular penetration testing, and personnel training programs. This is crucial to safeguard customer data and maintain trust in digital credit systems.

2. Expand digital literacy programs, especially in rural regions and among vulnerable groups such as the elderly and low-income populations. Public-private partnerships can be formed to promote mobile banking education and confidence in digital platforms.

3. Promote regulatory innovations that allow the safe testing and implementation of AI-based lending solutions through sandbox environments. This would facilitate a controlled but flexible adoption of emerging technologies.

4. Encourage investment in cloud computing and blockchain-based credit registries to improve the scalability, security, and transparency of credit issuance and monitoring. Such innovations could also facilitate real-time credit scoring and prevent fraud.

5. Mandate the inclusion of digital performance indicators within banks' strategic plans and regulatory assessments. This would ensure that digital transformation aligns with national financial inclusion goals and contributes to long-term economic growth.

6. Facilitate cross-border cooperation and benchmarking by engaging with global financial institutions and learning from international best practices in digital banking and credit policy reforms.

In conclusion, updating credit policy through digitalization is no longer an option but a necessity in the modern financial landscape. It offers significant advantages in terms of cost-efficiency, risk management, and customer satisfaction. However, its successful implementation requires a balanced approach that considers technological readiness, regulatory support, and social inclusion.

References

1. Puschmann, T. (2017). Fintech. Business & Information Systems Engineering, 59(1), 69–76. https://doi.org/10.1007/s12599-017-0464-6
2. Agarwal, R., & Zhang, J. (2020). Transforming through technology: Digital banking in emerging markets. Journal of Financial Services Research, 57(3), 245–262.
3. Deloitte. (2023). Banking transformation insights: Rethinking the future of finance. Available at: https://www2.deloitte.com
4. World Bank. (2022). Digital Financial Services: Challenges and Opportunities. Washington, DC: World Bank Group.
5. International Monetary Fund (IMF). (2021). Financial Stability and Digital Innovation. IMF Working Paper WP/21/45. Washington, DC: IMF.
6. Basel Committee on Banking Supervision (BIS). (2021). Sound Practices: Implications of Fintech developments for banks and bank supervisors. Basel: Bank for International Settlements.
7. Central Bank of Uzbekistan. (2023). Strategy for Digital Banking Development 2023–2026. Tashkent: CBU Publications.
8. Accenture. (2022). AI in Banking: Enhancing Credit Risk Management. Retrieved from: https://www.accenture.com
9. PwC. (2021). The Future of Banking: Innovation and Transformation in the Digital Age. Available at: https://www.pwc.com
10. Uzbekistan Information Security Agency. (2024). Annual Report on Cybersecurity in the Financial Sector. Tashkent: UISA.

YASHIL

IQTISODIYOT&TARAQQIYOT

Ijtimoiy, iqtisodiy, texnologik, ilmiy, ommabop jurnal

Ingliz tili muharriri: Feruz Hakimov

Musahhih: Zokir ALIBEKOV

Sahifalovchi va dizayner: Oloviddin Sobir o‘g‘li

2025. № 4

Mazkur jurnalda maqolalar chop etish uchun quyidagi havolalarga
maqola, reklama, hikoya va boshqa ijodiy materiallar yuborishingiz mumkin.
Materiallar va reklamalar pullik asosda chop etiladi.
El.Pochta: sq143235@gmail.com
Bot: @iqtisodiyot_77
Tel.: 93 718 40 07

Jurnalga istalgan payt quyidagi rekvizitlar orqali obuna bo‘lishingiz mumkin. Obuna bo‘lgach, @iqtisodiyot_77 telegram sahifamizga to‘lov haqidagi ma’lumotni skrinshot yoki foto shaklida jo‘natishingizni so‘raymiz. Shu asosda har oygi jurnal yangi sonini manzilingizga jo‘natamiz.

““Yashil” iqtisodiyot va taraqqiyot” jurnali 03.11.2022-yildan
O‘zbekiston Respublikasi Prezidenti Adminstratsiyasi huzuridagi
Axborot va ommaviy kommunikatsiyalar agentligi tomonidan
№566955 reyestr raqami tartibi bo‘yicha ro‘yxatdan o‘tkazilgan.
Litsenziya raqami: №046523. PNFL: 30407832680027

Manzilimiz: Toshkent shahar, Mirzo Ulug‘bek tumani
Kumushkon ko‘chasi, 26-uy.

Jurnal sayti: https://yashil-iqtisodiyot-taraqqiyot.uz