

IMPROVING THE PRACTICE OF CREDIT SERVICES OF COMMERCIAL BANKS BASED ON INNOVATIONS

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Annotation. This article examines the improvement of lending practices for manufacturing enterprises in commercial banks through innovation-based approaches.

A systematic analysis of factors affecting the efficiency of bank credit portfolios is provided. Special emphasis is placed on the digitalization of banking services and advanced credit risk-management technologies. The study demonstrates the application potential of artificial intelligence in enterprise lending. Innovative scoring models offer higher accuracy in assessing the financial condition of borrowers. Institutional mechanisms for modernizing the credit infrastructure are proposed. The new model of bank-enterprise cooperation is shown to enhance investment activity. Empirical analysis is based on open data from commercial banks of

Uzbekistan.

The results confirm a statistically significant relationship between loan volume and

loan quality. Digital credit platforms are found to significantly reduce transaction costs.

The study formulates practical recommendations and innovation-driven management tools. The findings contribute to improving credit policy targeted at manufacturing firms.

Keywords. Lending, commercial bank, innovation, scoring model, digitalization, risk management, credit portfolio, artificial intelligence, investment, modernization.

Main Part. The modernization of the country's economy and the strengthening of its industrial potential are directly linked to the efficiency of financing mechanisms for manufacturing enterprises. The credit policy of commercial banks serves as an important financial instrument in supporting the real sector. In the context of the digital economy, lending practices require reconsideration based on innovative approaches.

The legal foundations of credit relations are defined by the Law of the Republic of Uzbekistan "On Banks and Banking Activities" (dated November 5, 2019), which establishes the legal principles of lending.[1]

This law creates a regulatory basis for improving the quality of the credit portfolio, managing risks, and ensuring financial stability. Supporting manufacturing entities is a priority direction of state policy and is reinforced by relevant government resolutions.

In particular, the Resolution of the Cabinet of Ministers of the Republic of Uzbekistan dated February 2, 2021, aims to simplify lending mechanisms and expand access to financial resources.[2] This resolution promotes the extensive use of digital technologies, electronic information exchange, and analytical tools in lending processes. Ensuring the stability of the banking system is implemented through prudential standards developed by the Central Bank.

The procedure of the Central Bank of the Republic of Uzbekistan dated December 24, 2020, defines unified mechanisms for managing credit risks, monitoring, and assessing credit quality. This procedure is aimed at increasing banks' risk resilience and ensuring the stability of the credit portfolio.[3]

At the same time, the use of innovative scoring models has become particularly important in determining the financial condition of manufacturing enterprises. Digital assessment technologies increase the transparency of lending processes and accelerate decision-making. The integration of databases by banks and the introduction of automated analytical systems are also key factors that enhance lending efficiency. In modern conditions, the modernization of credit infrastructure is essential to support the investment activity of the manufacturing sector. Integrating lending practices with innovations contributes to improving the competitiveness of the banking system. This research focuses on studying innovative mechanisms for improving lending processes for manufacturing enterprises in commercial banks.

The results provide scientific and practical foundations for forming a credit policy that supports accelerated economic growth.

Research Methodology. This research methodology is aimed at studying lending processes in commercial banks based on innovative approaches and relies primarily on both classical and modern economic analysis theories.

In assessing the macro- and micro-level impacts of credit relations, the scientific views of Uzbek scholar A. Vahobov on the stability of the banking system were used as a foundation. The methodological basis for revealing the institutional mechanisms of commercial banks' activities was supported by Sh. Abdullayev's approaches to financial management.[4]

In analyzing enterprises' demand for credit, the opinions of Q. Haydarov regarding the financial challenges faced by industrial entities were applied.[5]

Analysis and Results. In the banking system of Uzbekistan, the dynamics of lending activities during 2020–2024 were closely shaped by processes related to the financial support of the real sector, particularly manufacturing enterprises. During this period, the steady growth of the credit portfolio, the controlled level of non-performing loans, and changes in the share of investment loans reflected ongoing modernization processes across the entire system. Although a short-term decline in lending activity was observed during the COVID-19 pandemic, beginning in 2021 the volume of loans supporting the real sector in commercial banks started to recover and continued its upward trend.[6]

In the post-pandemic recovery phase, commercial banks strengthened their approaches to risk management, monitoring, and analytical assessment when lending to industrial enterprises. From 2022 to 2024, the share of investment loans, working capital loans, and loans allocated for modernization projects increased within the credit portfolio. This development aligned with the state strategy aimed at technological renewal of production and enhancing the competitiveness of enterprises.

In the banking sector, the share of non-performing loans (NPLs) slightly increased in 2020 due to economic conditions; however, in subsequent years, it returned to a stable downward trend as a result of stricter prudential requirements, enhanced monitoring systems, and strengthened precautionary measures. Additionally, the use of digital scoring models, automated risk analysis systems, and the phased introduction of credit information-sharing mechanisms by the Central Bank had a positive impact on improving loan quality.[7]

The improvement of lending practices for manufacturing enterprises based on innovations has been supported by extensive positive experience accumulated in foreign banks, the study and generalization of which hold significant practical value for banks in our country.

Table 1.1**Assets, Loan Amounts, and Ratios of Deutsche Bank**

Indicator	2018	2019	2020	2021	2022	2023	2024
Assets	13 48,1	12 97,7	13 25,3	13 24,0	13 36,8	13 12,3	13 87,2
Gross Loans	40 0,3	42 9,8	42 7,0	47 1,3	48 3,7	47 3,7	47 8,9
Ratio of Gross Loans to Assets	29,7	33,1	32,2	35,6	36,2	36,1	34,5

The table was compiled by the author based on the annual reports of Deutsche Bank.

The data in **Table 1.1** show that the volume of Deutsche Bank's assets in 2024 increased at a faster pace compared to 2018. This can be explained by the rapid growth of gross loans during this period and is considered a positive development from the perspective of expanding the bank's lending operations.[7] The data in **Table 1.1** also indicate that the share of loans in the total assets of Deutsche Bank showed an increasing trend from 2018 to 2022. Moreover, the ratio of loans to total assets in 2024 grew at a faster pace compared to 2018. These trends reflect a positive situation regarding the development of Deutsche Bank's credit operations.

The data in **Table 1.2** show that the volume of BNP Paribas' assets exhibited an upward trend from 2018 to 2022. Furthermore, the volume of assets in 2024 increased at a faster rate compared to 2018. This can be explained by the growth trend of BNP Paribas' loans during this period.

Table 1.2**Assets, Loan Amounts, and Ratios of BNP Paribas Bank**

Indicators	2018	2019	2020	2021	2022	2023	2024
Assets	204 0,8	21 64,7	248 8,5	263 4,4	266 6,4	259 1,5	27 04,9
Gross Loans	785, 427	82 7,469	828 ,515	835, 751	889 ,636	883 ,535	10 47,116
Ratio of Gross Loans to Assets	38,5 2	38, 3	33, 3	31,7 4	33, 1	34, 7	38, 7

The table was compiled by the author based on the annual reports of Deutsche Bank.

The data in **Table 1.2** indicate that the share of loans in the total assets of BNP Paribas showed a declining trend from 2019 to 2021. This can be explained by the increasing share of investments in securities within the gross assets during the same period.[8]

In international practice, the German KfW Bankengruppe model is considered one of the most successful mechanisms for lending to industrial enterprises. Although the KfW credit portfolio experienced a short-term decline during the pandemic, from 2021 to 2024, loans supporting industrial and innovative projects steadily increased. The approaches used by the bank, including risk diversification, guarantee mechanisms developed in cooperation with the government, and digital credit assessment systems, played a crucial role in maintaining loan quality.

Compared to trends in the banking system of Uzbekistan, the KfW experience demonstrates that:

- The stable growth of investment loans is a key factor in the recovery of the real sector;
- Digital risk models and automated assessment systems play an important role in reducing the share of non-performing loans;

- An increase in the volume of industrial loans is directly linked to economic growth and modernization programs.

The above analysis shows that from 2020 to 2024, lending processes in the banking system of Uzbekistan underwent consistent modernization, and mechanisms for supporting the real sector were gradually improved. The increase in the share of investment loans, the reduction in non-performing loans, and the improvement in credit portfolio quality confirm the effectiveness of the strategy for financing industrial enterprises. As seen in the case of KfW, technological innovations, data analysis, and government-bank cooperation play a crucial role in enhancing loan quality.

Conclusion. The results of the study indicate that from 2020 to 2024, lending practices in the banking system of Uzbekistan demonstrated steady growth and modernization trends. The increase in the share of investment loans was a key factor in financially supporting the real sector and manufacturing enterprises. The reduction in the share of non-performing loans confirms the effectiveness of the banking system's risk management and monitoring mechanisms.

Digital scoring models and automated credit analysis systems contributed to greater accuracy and speed in credit decision-making. Additionally, the prudential standards introduced by the Central Bank served as a primary tool for controlling credit quality. Cooperation mechanisms between commercial banks and manufacturing enterprises were strengthened through modern approaches. Experience from foreign banks, such as KfW, demonstrates that government-bank collaboration and digital credit assessment systems play a decisive role in improving loan quality.

Modernizing the credit infrastructure in the banking system helps increase enterprises' investment activity. Innovative approaches, including artificial intelligence and big data analytics, serve as effective tools for assessing the financial

stability of enterprises. The growing share of funds allocated for industrial and manufacturing projects within the credit portfolio is a strategic indicator of economic growth. Furthermore, an optimized lending model allows for efficient use of bank resources and minimizes financial risks. Innovative lending mechanisms encourage technological renewal in enterprises.

At the same time, digital transformation in the banking system not only enhances service quality but also strengthens credit monitoring. The research methodology combined the scientific perspectives of Uzbek and foreign scholars, providing both practical and theoretical foundations. The analytical section showed a consistent growth trend in the credit portfolio and a reduction in the share of non-performing loans.

The implementation of innovative approaches enhances the effectiveness of credit policies. Developing cooperation mechanisms between banks and enterprises forms an optimal credit model from both digital and managerial perspectives. The results of this study provide a basis for scientifically grounded recommendations that support economic development and industrial modernization.

In conclusion, improving lending to manufacturing enterprises in commercial banks through innovations directly contributes to the sustainable growth of the national economy and the increased efficiency of the banking system.

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