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The Necessity and Economic Significance of Financing The Communications Sector by Commercial Banks

Mirzarakhimova Aziza Azimdjánovna

Independent researcher

Tashkent university of information technologies
named after Muhammad al-Khwarizmi

Abstract: this article analyzes the necessity of financing the communications sector by commercial banks and its economic significance based on a comprehensive approach. In the context of the digital economy, special attention is paid to the role of bank financing in ensuring the sustainable development of telecommunications infrastructure. In particular, the practical importance of such financial instruments as lending, investment financing, project financing, leasing, and syndicated loans is examined. The high capital intensity of the communications sector, its long-term investment cycle, and risk factors associated with technological modernization are also substantiated as important economic factors affecting the activities of commercial banks. As a result of the study, scientific conclusions and practical recommendations have been developed to improve the effective financing of the communications sector, the rational use of banking resources, and the risk management system.

Keywords: commercial banks, communications sector, telecommunications infrastructure, necessity of financing, economic significance, lending, investment financing, project financing, banking risks, capital intensity, digital economy



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1. Introduction

In the context of globalization and digital transformation, the communications sector is emerging as one of the strategic and priority branches of the national economy. The development of telecommunications infrastructure serves as a key factor in increasing efficiency across all segments of the economic system, including industry, services, finance, education, and public administration. From this perspective, ensuring the stable and consistent development of the communications sector is closely linked to investment resources, in which commercial banks actively participate as important financial institutions.

The communications sector is characterized by high capital intensity, an infrastructure-oriented nature, and a long-term investment cycle. The modernization of telecommunications networks, development of broadband internet services, expansion of mobile communication systems, deployment of fiber-optic communication lines, and advancement of digital platforms require substantial financial resources. In such conditions, mechanisms such as bank lending, investment financing, leasing operations, syndicated lending, and project financing provided by commercial banks act as important financial sources for the development of the communications sector.

At the same time, the rapid pace of technological innovation in the communications sector, increasing market competition, and the long-term return on investments give rise to various risk factors in the activities of commercial banks. In particular, the growth of credit, liquidity, and interest

rate risks necessitates thorough risk assessment in the financing process, diversification of the credit portfolio, and the development of an effective credit policy.

As emphasized by the Head of State: "Today, thousands of our talented young people are engaged in research in IT and artificial intelligence. A Digital Technology Center will be established to implement their engineering projects in areas such as quantum technologies, drones, and robotics. The Asian Development Bank has expressed its readiness to support this initiative by allocating \$200 million. We have also taken significant steps toward developing research in the space sector, which goes hand in hand with artificial intelligence, and introducing satellite communication technologies. In this regard, we are making thorough preparations to host the International Astronautical Congress in Samarkand in 2028." [1]

In the conditions of a digital economy, the development of communications infrastructure is one of the key drivers of economic growth. Therefore, it is an important scientific and practical task to study the necessity and economic significance of financing the communications sector by commercial banks, to improve the theoretical and methodological foundations of this process, and to develop effective institutional mechanisms.

Literature review on the topic. Issues related to the financing of the communications sector by commercial banks have emerged as one of the important research areas in modern economic theory and practice. In particular, the optimization of financing mechanisms, risk allocation, and the selection of effective financial instruments in infrastructure-intensive and capital-intensive sectors have been widely examined in the studies of leading foreign and domestic scholars. In the context of the digital economy, the rapid development of the communications sector necessitates a reconsideration of its institutional and financial foundations. Therefore, a critical analysis and systematic generalization of existing scientific approaches form the basis of this research.

E. R. Yescombe interprets project financing as an effective mechanism for financing infrastructure and capital-intensive sectors. According to him, in highly capital-intensive sectors such as telecommunications, banks assess credit not based on the borrower's overall balance sheet, but on the cash flows generated by the project itself. This approach allows for risk sharing and provides structural protection of credit. [2]

In economic literature, the main instruments used by commercial banks to finance communications infrastructure include bank loans (commercial and syndicated), leasing operations, bond issuance, and project financing ("non-recourse"/"limited-recourse"). In addition, co-financing (blended finance) with international financial institutions and the activities of export credit agencies play an important role in attracting private sector investments. Recent reports highlight the expansion of "de-risking" mechanisms (guarantees, insurance, and structured collateral) specific to infrastructure projects. [3]

S. Gatti also provides an in-depth analysis of the role of banks in project financing, substantiating the importance of syndicated loans and guarantee mechanisms in reducing credit risk. He emphasizes that careful assessment of technological and demand risks is a central element of bank decision-making in telecommunications projects. [4]

F. Modigliani and M. Miller, in their capital structure theory, argue that a firm's value is independent of its financing sources. However, in real market conditions, the presence of taxes and transaction costs increases the importance of the ratio between debt and equity. Therefore, companies in the communications sector may have a high debt burden, which increases credit risk for commercial banks. [5]

Brealey, Myers, and Allen emphasize in corporate finance theory the importance of methods such as NPV, IRR, and discounting in evaluating long-term investments. These methods are widely used by banks in financing telecommunications projects. [6]

M. Iskandarov, studying the efficiency of financial intermediation, emphasizes the need to diversify long-term lending instruments of commercial banks in financing telecommunications infrastructure. [7]

A. Teshaboyev, analyzing investment lending mechanisms of commercial banks, substantiates

that the use of syndicated lending and state guarantees in capital-intensive sectors such as telecommunications helps reduce bank risks. [8]

Professor B. Rasulov, examining the transformation of the banking system and the diversification of financial instruments in the context of the digital economy, notes that the development of telecommunications infrastructure expands the financial services market. According to him, investments directed to the communications sector also stimulate the development of digital forms of banking services. [9]

The analysis of the above-mentioned scientific approaches shows that the participation of commercial banks in financing the communications sector is important not only in providing financial resources, but also in effectively managing risks, ensuring the sustainability of investment projects, and increasing economic efficiency. At the same time, existing studies mainly focus on general financing mechanisms and risk management approaches, while the specific characteristics of the communications sector and the institutional aspects of commercial bank participation under national economic conditions have not been sufficiently comprehensively studied. This situation necessitates further deepening of the theoretical and methodological foundations of financing the communications sector, improvement of bank financial instruments, and the development of effective risk management mechanisms within this process.[10].

2. Materials and Methods

In preparing this article, regulatory and legal documents, reviewed literature, and online sources were analyzed in terms of their reliability, while the scientific and theoretical views of economists related to the topic were examined through comparative and critical analysis. During the study, along with general economic methods, approaches such as system analysis, generalization, abstract-logical reasoning, and statistical methods were employed.[11]

3. Results and Discussion

The role of the communications sector in the modern economy is determined by its high technological level, infrastructural significance, and its multiplicative effect on economic growth. In the context of the digital economy, the development of telecommunications infrastructure is a key factor in increasing production efficiency, improving service quality, and creating new economic opportunities. Therefore, the active participation of commercial banks in financing this sector is considered an economic necessity.

In recent years, the growth of digital infrastructure and information and communication technology (ICT) sectors in the global economy has become one of the main drivers of economic development. By the beginning of 2025, 5.64 billion people worldwide were actively using the internet, accounting for 68.7% of the global population, clearly demonstrating the deep and stable integration of the digital economy [12]. This indicator shows that internet infrastructure, optical networks, mobile communication stations, data centers, and cloud technologies have become integral components of the global production and financial system.

Moreover, in modern conditions, commercial banks operate not only as credit intermediaries but also as active investment participants in the digital economy. Technological advancements in the communications sector—such as 5G, the Internet of Things (IoT), data exchange platforms, and digital payment systems—require large volumes of long-term investments. Therefore, the effective organization of lending processes in the telecommunications sector, proper risk management, and diversification of credit portfolios have become pressing tasks for commercial banks.

The economic significance of financing the communications sector by commercial banks occupies an important place in the modern economy. This process contributes not only to the development of a specific sector but also to the sustainable growth of the entire national economy.

Figure 1 below illustrates the economic significance of financing the communications sector by commercial banks in a systematic manner. At the center of the figure is the concept of financing the

communications sector by commercial banks, from which the main directions influencing the economy are identified and highlighted

First, bank investments directed toward communications infrastructure stimulate economic growth. The development of telecommunications networks increases production efficiency, creates new business opportunities, and has a positive impact on gross domestic product growth. Through loans and investments provided by banks, internet networks, mobile communications, and fiber-optic lines expand. This, in turn, stimulates business activity and leads to the emergence of new markets and services Figure 1.[13].

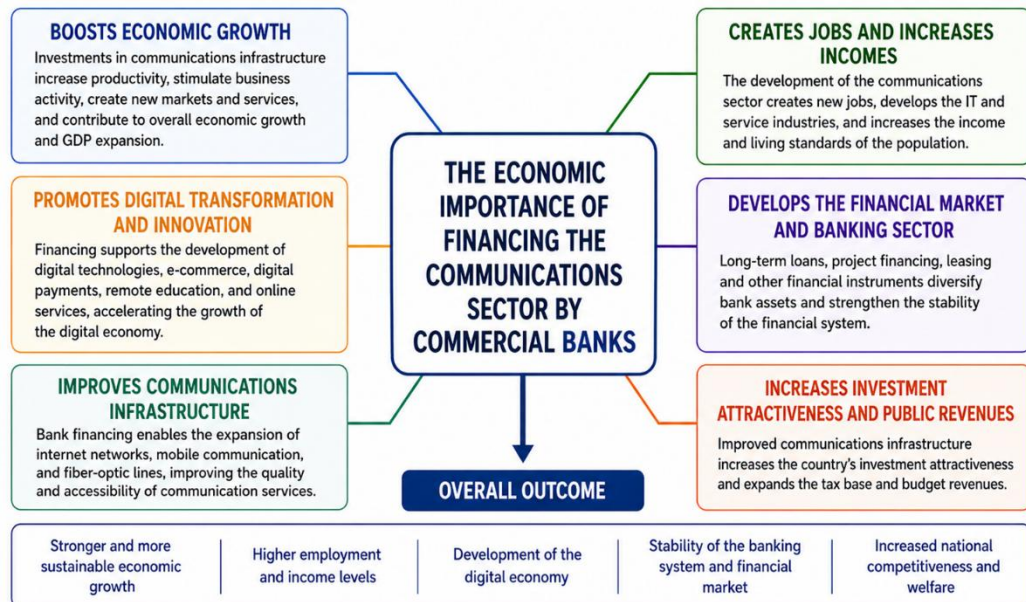


Figure 1. The economic importance of financing the communications sector by commercial banks

Second, this process contributes to increased employment and higher household incomes. The expansion of the communications sector leads to the creation of new jobs, thereby improving the standard of living of the population.

Third, bank financing stimulates the development of digitalization and innovation. The introduction of digital technologies, expansion of electronic services, and growth of online platforms ensure the modernization of the economy.

Fourth, financing the communications sector has a positive impact on the development of financial markets and the banking sector. The wider use of long-term lending, project financing, and other financial instruments enhances the stability of the banking system.

Fifth, communications infrastructure improves through bank funding. Internet networks, mobile communication systems, and fiber-optic lines expand, increasing the quality and coverage of communication services.

Sixth, this process leads to increased government revenues and greater investment attractiveness. Investments in the communications sector boost tax revenues and improve the country's investment climate.

As a result, financing the communications sector by commercial banks ensures sustainable economic growth, improves public welfare, supports the development of the digital economy, strengthens the efficiency of the banking system, and enhances the competitiveness of the national economy.

The volume of financing directed by commercial banks to the communications sector is a key indicator, as it reflects the extent to which this sector depends on the banking system. At the same time, the structure of loans is also important, including the share of short-term and long-term loans, investment loans, and syndicated loans.

The volume and dynamics of investments attracted to communications infrastructure are among the key indicators reflecting the sector's level of development. The share of the communications sector in the credit portfolio of commercial banks makes it possible to determine the priority of this sector within banking activities. Additionally, the repayment rate of loans—i.e., their timely repayment and the share of non-performing loans—is crucial in assessing banking risks.[14]

Interest rate levels are also an integral part of economic analysis, as they determine the cost and attractiveness of loans provided to the communications sector. The profitability of financed projects is evaluated using indicators such as NPV, IRR, and the payback period of investments.

Furthermore, the number of jobs created as a result of bank financing, the growth in the volume of communication services, and the expansion of digital infrastructure coverage are important socio-economic indicators of economic efficiency. At the same time, the increase in investment activity in the sector leads to higher tax revenues for the state budget, which is also subject to analysis.

Finally, the Table 1. levels of credit, liquidity, interest rate, and technological risks are considered key indicators in assessing the stability of commercial banks' activities. A comprehensive analysis of these indicators makes it possible to deeply evaluate the economic efficiency of financing the communications sector by commercial banks and its impact on the national economy.

Table 1. Dynamics of Key Financial and Economic Indicators of "Uzbektelecom" JSC for 2024–2025

Indicators	01.01.2024 (thousand UZS)	01.01.2025 (thousand UZS)	Change
Total assets	13,060,932,969	13,530,348,888	469,415,919
Non-current assets	10,737,937,030	10,622,493,237	-115,443,793
Current assets	2,322,995,939	2,907,855,651	584,859,712
Accounts receivable	1,290,557,254	1,529,232,185	238,674,931
Cash funds	40,529,600	28,021,846	-12,507,754
Long-term liabilities	6,771,696,275	6,044,989,664	-726,706,611
Current liabilities	3,802,041,783	4,454,606,112	652,564,329
Equity	2,487,194,911	3,030,753,112	543,558,201
Net revenue (income)	8,964,716,518	10,512,797,471	1,548,080,953
Net profit	41,629,721	590,906,080	549,276,359

The table above analyzes the dynamics of the key financial and economic indicators of "Uzbektelecom" JSC from the perspective of commercial banks financing the telecommunications sector. These indicators make it possible to assess the economic efficiency of bank loans and investment financing in the development of communication infrastructure.

First, the increase in total assets by 469,415,919 thousand UZS indicates an expansion in the volume of financial resources directed toward the telecommunications sector. This suggests that loans and investments provided by commercial banks have contributed to strengthening the production base. The significant rise in current assets (by 584,859,712 thousand UZS) reflects the expansion of the company's operational activities and the improvement of its short-term financial stability.

At the same time, the growth in accounts receivable (by 238,674,931 thousand UZS) indicates the existence of payment discipline issues in the telecommunications services market. This factor increases credit risks for commercial banks. The decrease in cash funds (by 12,507,754 thousand UZS) signals a relative decline in liquidity, which requires caution from banks when providing financing.

The analysis of liabilities shows that the reduction in long-term liabilities (by 726,706,611 thousand UZS) indicates that the company has managed to decrease its debt burden, reflecting

efficient use of bank loans. However, the increase in current liabilities (by 652,564,329 thousand UZS) may intensify short-term financial pressure.

The growth of equity by 543,558,201 thousand UZS has strengthened the company's financial independence, creating a reliable basis for lending from commercial banks. One of the most important aspects is the sharp increase in net revenue and net profit. In particular, net revenue increased by 1,548,080,953 thousand UZS, and net profit by 549,276,359 thousand UZS, confirming the high economic efficiency of financing directed to the telecommunications sector.

These indicators demonstrate that financing the telecommunications sector by commercial banks is a key factor in ensuring economic growth, developing infrastructure, and increasing corporate profitability. At the same time, reducing risks related to accounts receivable and liquidity remains an urgent task for both banks and enterprises.[15]

4. Conclusion

The results of the study show that financing the telecommunications sector by commercial banks is one of the key factors ensuring sustainable growth of the national economy in the context of the modern digital economy. The development of telecommunications infrastructure increases efficiency across all sectors of the economic system and creates new economic opportunities.

The analysis conducted on the example of "Uzbektelecom" JSC demonstrates that financial resources allocated by commercial banks have contributed to a significant increase in the company's assets, revenues, and net profit. This confirms that bank lending and investment financing are important tools for improving the economic efficiency of the telecommunications sector.

At the same time, the analysis identified certain negative trends, such as the growth of accounts receivable and the increase in current liabilities, which may lead to a higher level of credit risk for commercial banks. Therefore, it is necessary to improve risk management systems in the process of financing the telecommunications sector.

Based on the research findings, several important recommendations can be proposed to enhance the effectiveness of financing the telecommunications sector by commercial banks. First, it is necessary to expand long-term financing mechanisms, taking into account the specific features of telecommunications infrastructure. In particular, the active use of project financing, syndicated lending, and investment credit instruments will enable the effective implementation of large-scale investment projects in the sector.

At the same time, improving risk management systems within commercial banks is of great importance. In-depth analysis of technological, credit, and liquidity risks specific to telecommunications projects, diversification of the credit portfolio, and the introduction of modern assessment methods will ensure the stability of the financing process.

Given the increasing level of accounts receivable in telecommunications companies, it is essential to strengthen payment discipline and implement effective receivables management mechanisms. This will not only improve the liquidity of enterprises but also reduce credit risks for commercial banks.

In addition, it is advisable to attract additional investments for the development of telecommunications infrastructure by expanding public-private partnership mechanisms. Government guarantees, subsidies, and incentives make the financing process more attractive for commercial banks.

From the perspective of expanding the financial resource base, developing leasing, bond issuance, co-financing, and cooperation with international financial institutions is also an important direction. This will ensure the sustainable development of the telecommunications sector through diversification of financing sources.

Furthermore, the development of digital financial services by commercial banks and the introduction of innovative banking products will accelerate the digital transformation of the telecommunications sector. In turn, this will contribute to increasing the competitiveness of the national economy.

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