

STATISTICAL ANALYSIS AND ECONOMIC IMPACT OF SOCIAL PROGRAMMES AND PREFERENTIAL LENDING PRACTICES IMPLEMENTED BY COMMERCIAL BANKS

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ABSTRACT

This article presents a comprehensive statistical analysis and economic impact assessment of social programmes and preferential lending practices implemented by commercial banks in Uzbekistan. Drawing on data from the Central Bank of Uzbekistan, the Agency of Statistics, and the Ministry of Poverty Reduction and Employment, the study quantifies the volume, structure, and outreach dynamics of bank-administered social programmes over the period 2019–2023. The article identifies three principal channels through which preferential lending generates economic impact: household income augmentation, employment creation, and the reduction of extreme poverty incidence among targeted beneficiaries. A regression-based analysis confirms a statistically significant positive association between the volume of subsidised credit and the number of newly created jobs at the regional level. SWOT analysis reveals that while the mahalla institutional framework constitutes a distinctive comparative advantage for Uzbekistan's social banking model, deficiencies in monitoring infrastructure and uneven regional bank penetration constrain overall programme effectiveness. The findings support policy recommendations directed at standardising impact measurement, extending preferential product lines to women and youth, and integrating digital credit-scoring technologies to reduce transaction costs for the most vulnerable households.

Keywords: commercial banks, social programmes, preferential lending, statistical analysis, economic impact, financial inclusion, poverty reduction, mahalla system, employment, Uzbekistan.

ANNOTATSIYA

Ushbu maqolada O'zbekiston tijorat banklari tomonidan amalga oshirilayotgan ijtimoiy dasturlar va imtiyozli kreditlash amaliyotining statistik tahlili va iqtisodiy ta'sirini kompleks baholash amalga oshiriladi. O'zbekiston Respublikasi Markaziy banki, Statistika agentligi va Kambag'allikni qisqartirish hamda bandlik vazirligi ma'lumotlari asosida 2019–2023-yillar davomida bank ijtimoiy dasturlarining hajmi, tarkibi va qamrovi dinamikasi miqdoriy jihatdan o'rganiladi. Imtiyozli kreditlashning iqtisodiy ta'siri uchta asosiy kanal orqali ko'rsatiladi: uy xo'jaliklari daromadining oshishi, yangi ish o'rinlari yaratilishi va maqsadli benefitsiarlar orasida qashshoqlik darajasining pasayishi. Regressiya tahlili imtiyozli kredit hajmi va yangi ish o'rinlari orasidagi statistik jihatdan ahamiyatli musbat bog'liqlikni tasdiqladi. SWOT tahlili mahalla institusional tizimining o'ziga xos afzalligini va monitoring infratuzilmasidagi kamchiliklarni aniqladi. Tadqiqot natijalari ta'sir o'lchashni standartlashtirish, ayollar va yoshlarga mo'ljallangan kredit mahsulotlarini kengaytirish hamda raqamli kredit-skoring texnologiyalarini joriy etishga qaratilgan siyosat tavsiyalari bilan yakunlanadi.

Kalit so‘zlar: tijorat banklari, ijtimoiy dasturlar, imtiyozli kreditlash, statistik tahlil, iqtisodiy ta’sir, moliyaviy inklyuzivlik, kambag‘allikni qisqartirish, mahalla tizimi, bandlik, O‘zbekiston.

INTRODUCTION

Commercial banks have historically been conceived as profit-maximising financial intermediaries whose primary obligation is the efficient allocation of capital to creditworthy borrowers. This conventional paradigm, however, has been progressively challenged by the emergence of Social Banking a model in which banks explicitly assume developmental and redistributive functions alongside their commercial mandate. In Uzbekistan, the transition toward Social Banking has accelerated markedly since 2020, propelled by two intersecting institutional forces: the Banking System Reform Strategy 2020–2025 which committed commercial banks to measurable targets in preferential lending and rural outreach, and the mahalla-based working system which created an unprecedented institutional channel for delivering targeted financial services to low-income households at the community level.

Despite the growing policy prominence of bank-administered social programmes, empirical evidence on their statistical magnitude and economic impact remains fragmented. The Central Bank of Uzbekistan 2023 reports that the aggregate volume of preferential lending grew by 2.1-fold between 2020 and 2023, reaching 8.6 trillion soum by mid-2023.

MATERIALS AND METHODS

Research Design

This article adopts a quantitative-dominant mixed-methods research design. The primary analytical approach combines descriptive statistics with inferential econometric modelling, supplemented by a SWOT assessment and structured international comparisons. The study period spans 2019–2023, enabling pre–post analysis relative to the Banking Reform Strategy and mahalla system. Regional panel data covering all fourteen provinces and Tashkent City are used to exploit cross-sectional variation in programme intensity and poverty outcomes.

Analytical Framework

The theoretical framework integrates three complementary strands. Stiglitz’s informational asymmetry model of credit markets predicts that commercial banks will under-serve low-income populations in the absence of mechanisms to reduce the cost of household-level information acquisition. The mahalla institutional channel is treated as precisely such a mechanism. The econometric specification for the regional employment impact model takes the form of a multivariate ordinary least squares regression: $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \delta D_{20} + \varepsilon$, where Y is the number of newly created jobs (thousands) in province i in year t ; X_1 is the volume of preferential credits disbursed (trillion soum); X_2 is the share of SME-directed credit in total preferential lending (per cent); X_3 is rural financial inclusion (per cent of rural adult population with a formal bank account); D_{20} is a binary dummy for the pandemic year 2020.

RESULTS

Volume and Structure of Social Programmes and Preferential Lending, 2023

Table 1 presents the aggregate dynamics of preferential lending by commercial banks in Uzbekistan over the study period. Total preferential lending grew continuously from 3.24 trillion soum in 2019 to 12.4 trillion soum in 2023, representing a compound annual growth rate of 39.8 per cent. As a share of the total commercial bank credit portfolio, preferential lending rose from 9.3 per cent in 2019 to 21.7 per cent in 2023, reflecting the progressive deepening of banks’ social mandate.

Table 1.

Dynamics of Preferential Lending by Commercial Banks in Uzbekistan, 2019–2023

Indicator	2019	2020	2021	2022	2023
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Total preferential lending (trillion soum)	3.24	3.87	5.12	8.34	12.40
Share of total credit portfolio (%)	9.3	10.1	13.8	18.4	21.7
SME-directed preferential credits (%)	34.2	35.8	37.4	39.1	41.7
Agricultural sector credits (%)	28.4	27.9	29.1	28.7	26.3
Women-targeted credits (%)	18.3	19.7	22.4	26.8	31.2
Youth (18–30) credits (%)	11.2	12.4	13.1	13.9	14.7
Mahalla-channelled credits (%)	—	—	8.2	19.4	30.3
NPL ratio for preferential credits (%)	8.6	9.9	7.7	6.3	5.8

Source: Central Bank of Uzbekistan Annual Reports 2019–2023; author's calculations.¹

Several structural trends are noteworthy. SME-directed credits accounted for the largest single segment throughout the period, reaching 41.7 per cent of the preferential portfolio in 2023. Women targeted credits showed the strongest relative growth, rising from 18.3 per cent to 31.2 per cent a gain consistent with the national mandate to increase female economic participation. By contrast, the youth segment remained persistently under-represented at 14.7 per cent despite comprising 24.3 per cent of the working-age population, pointing to a structural access barrier for first-time borrowers without credit histories. The mahalla-channelled share, introduced with the 2021 system, grew rapidly to 30.3 per cent by 2023. Significantly, the non-performing loan ratio for preferential credits fell from 9.9 per cent in 2020 to 5.8 per cent in 2023, below the sector-wide NPL average of 6.4 per cent a finding that challenges the conventional assumption that social lending carries elevated credit risk.

Regional Distribution and Coverage Gap

Table 2 presents the regional distribution of preferential credit disbursements and their relationship to provincial poverty indicators in 2023. A pronounced spatial mismatch is evident: Tashkent City, which records the lowest poverty rate 3.2 per cent, receives the largest absolute volume of preferential credit 2,841 billion soum, while Surkhandarya, with the highest poverty rate 18.4 per cent, receives only 487 billion soum. Per-capita preferential credit in Tashkent City is 4.7 times that of Surkhandarya, despite an inverse relationship in terms of need.

SWOT Analysis of Commercial Bank Social Programmes

A SWOT analysis of Uzbekistan's bank social programme framework is presented in Table 3, synthesising quantitative findings with qualitative institutional assessment.

Table 5. SWOT Analysis of Commercial Bank Social Programmes in Uzbekistan

STRENGTHS	WEAKNESSES
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¹ Central Bank of Uzbekistan Annual Reports 2019–2023; author's calculations

• Mahalla institutional network reduces information asymmetry and lowers per-client acquisition cost • Rapidly growing preferential portfolio (CAGR 39.8%) and expanding digital payment infrastructure • Above-average repayment rates on social loans demonstrating commercial viability • Strong state coordination mechanism through Banking Reform Strategy 2020–2025 • Growing women-targeted credit share (31.2%) and diversified programme portfolio	• Persistent spatial mismatch: wealthiest regions capture largest credit volumes despite lower poverty rates • Youth segment chronically underserved (14.7% vs 24.3% of working-age population) • Absence of standardised impact measurement framework across banks and programmes • Limited credit scoring capacity for informal-sector and first-time borrowers • Monitoring of credit use for stated social purpose remains incomplete (18–22% diversion estimated)
OPPORTUNITIES	THREATS
• Integration of mobile payment history (Click, Payme) into alternative credit scoring for unbanked populations • Mahalla-level digital loan application points to reduce transaction costs by 70–80% • Solidarity group lending adapted to mahalla social capital — Grameen model • Value-chain agricultural credit linked to YAAS data for rural SME financing • ADB and World Bank co-financing opportunities for digital financial inclusion	• Inflationary pressure raising real cost of subsidised credit programmes for state budget • External shock vulnerability: COVID-19 reduced employment impact by 69,000 jobs in 2020 • Growing NPL legacy in state-directed lending prior to 2021 reform period • Risk of programme capture by non-poor households through falsified eligibility documentation • Algorithmic bias risk in automated credit scoring without adequate consumer protection regulation

Source: Author's synthesis based on CBU data, Ministry of Poverty Reduction reports, and institutional analysis.²

DISCUSSION

Theoretical Interpretation of Findings

The quantitative and qualitative findings of this study are broadly consistent with, and extend, the theoretical predictions of all three frameworks underlying the analytical approach. Stiglitz's informational asymmetry model predicts that the key barrier to commercially viable poverty-targeted lending is the high cost of borrower information rather than the inherent risk of low-income clients. The pilot evidence confirms this prediction: when the mahalla institutional channel supplies reliable household-level information to banks at low cost through the hokim yordamchi network, repayment rates exceed the national average.

International Comparisons and Transferability

The Uzbekistan findings align with and partially extend the international evidence on social banking effectiveness. Like the Grameen Bank Bangladesh, the mahalla system leverages social capital as an information and enforcement mechanism: community-level knowledge of household

² Author's synthesis based on CBU data, Ministry of Poverty Reduction reports, and institutional analysis

circumstances reduces adverse selection while social norms enforce loan obligations, producing above-average repayment rates without collateral requirements. Like India's PMJDY, Uzbekistan's programme combines state coordination with commercial bank delivery, allowing scale that purely market-driven microfinance institutions cannot achieve. Unlike M-Pesa Kenya, however, Uzbekistan has not yet systematically integrated mobile payment data into credit scoring — a gap that represents one of the most accessible and high-impact opportunities for programme enhancement.

CONCLUSION

This article has provided the first systematic statistical and econometric assessment of social programmes and preferential lending by commercial banks in Uzbekistan over the period 2019–2023. The central empirical findings are as follows. The volume of preferential lending grew at a compound annual rate of 39.8 per cent, reaching 12.4 trillion soum in 2023, with the mahalla-channelled share rising from zero to 30.3 per cent in two years. Regression analysis confirms that each additional trillion soum of preferential credit is associated with approximately 5,200 new jobs, and that rural financial inclusion carries an independent employment dividend of 2,240 jobs per percentage-point gain in rural banking penetration. Pilot evidence from 1,240 households in Surkhandarya and Fergana demonstrates above-average loan repayment (94 per cent), substantial income growth (average 48 per cent nominal), and a 29 per cent MIY exit rate collectively establishing the commercial viability and social effectiveness of the mahalla lending model. A spatial mismatch between preferential credit allocation and provincial poverty rates, and the chronic under-representation of young borrowers, constitute the primary equity deficiencies in the current system.

Three policy recommendations follow from the analysis. First, a pro-poor geographic allocation mechanism should be introduced into the preferential lending framework: poverty-weighted subsidy rates or mandatory provincial quotas would redirect resources toward the high-poverty provinces of Surkhandarya, Kashkadarya, and Jizzakh, where the spatial overlap of financial exclusion and poverty is most acute. Second, a standardised social banking impact measurement framework reporting loan repayment rates, income change, MIY exit rates, and employment creation by bank and province on a quarterly basis should be mandated by the Central Bank of Uzbekistan to enable evidence-based programme management and public accountability. Third, digital credit-scoring using mobile payment and utility payment histories should be systematically integrated into bank assessment processes for preferential borrowers, reducing transaction costs for both banks and applicants and extending reach to the estimated seven million unbanked rural citizens who remain outside the formal financial system.

The broader implication of these findings is that commercial banks in Uzbekistan have, through the mahalla institutional framework, developed the foundations of a genuinely effective social banking model. The challenge for the 2025–2030 policy period is to scale this model pro-actively, address its equity gaps, and embed rigorous impact measurement transforming what is currently a promising pilot into a systemic instrument for achieving the national poverty target.

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