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CREDIT RISK ASSESSMENT AND NPA MANAGEMENT IN URBAN CO-OPERATIVE BANKS AT BANGALORE

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Abstract—*Urban Co-operative Banks (UCBs) constitute a vital pillar of India's cooperative credit architecture, catering primarily to the financial needs of small traders, artisans, salaried individuals, and micro-entrepreneurs in urban and semi-urban areas. Bangalore, as the commercial and IT hub of Karnataka, hosts a significant number of UCBs that play an indispensable role in financial inclusion. However, these banks have historically grappled with elevated Non-Performing Assets (NPAs), governance deficiencies, and inadequate credit risk management frameworks. The present study examines credit risk assessment practices and NPA management strategies adopted by Urban Co-operative Banks in Bangalore during the period 2020–2025. Using a mixed-method approach — combining primary data collected through structured questionnaires from bank officials and borrowers with secondary data sourced from RBI reports, Annual Reports of UCBs, and NABARD publications — the study analyses the causes, consequences, and remedies for NPAs in this sector. Findings reveal that while the Gross NPA ratio of UCBs at the national level declined significantly from 12.1% in March 2021 to 6.2% in March 2025, Bangalore UCBs still face challenges including inadequate due diligence, weak recovery mechanisms, political interference in lending decisions, and lack of digitised credit monitoring systems. The study concludes with actionable recommendations including adoption of risk-based credit appraisal models, technology-driven monitoring, and capacity building of credit officers to strengthen the financial health of UCBs in Bangalore.*

Keywords: *Credit Risk, NPA Management, Non-Performing Assets, Urban Co-Operative Banks, Bangalore.*

INTRODUCTION

Urban Co-operative Banks (UCBs) occupy a unique and critical position in India's financial ecosystem. Governed jointly by the Reserve Bank of India (RBI) for their banking operations and by respective State Registrars of Co-operative Societies (SRCS) for their co-operative aspects, UCBs have historically served as the banking lifeline for economically weaker sections and middle-income groups in urban India. As of December 2024, the UCB sector in India comprised approximately 1,514 banks with total assets of ₹7,20,141 crore, total deposits of ₹5,59,954 crore, and a net profit of ₹4,130 crore (RBI, 2025).

Karnataka is home to one of the largest concentrations of UCBs in the country, with approximately 261 UCBs operating across the state as of 2024–25. Bangalore, as the state capital and economic nerve centre, hosts a significant cluster of these institutions. While UCBs have made commendable contributions to financial inclusion, their sustainability has often been threatened by rising NPAs, weak credit governance, and inadequate risk management systems.

The COVID-19 pandemic (2020–2022) severely disrupted credit quality across the banking sector, but UCBs — with their narrower capital bases and limited diversification — bore a disproportionate burden. The RBI's revised regulatory framework of July 2022, introducing a four-tier categorisation of UCBs, marked a watershed moment aimed at strengthening governance and financial resilience. Against this backdrop, the present study investigates the credit risk assessment practices and NPA management mechanisms in Bangalore's UCBs during 2020–2025, with the goal of identifying gaps and proposing evidence-based interventions.

REVIEW OF LITERATURE

Gupta (2019) examined credit risk management in co-operative banks in Maharashtra and found that subjective credit appraisal practices, over-reliance on collateral security, and inadequate credit monitoring were the primary drivers of NPA accumulation. The study recommended the adoption of structured credit scoring models.

Sharma and Reddy (2020) studied the impact of NPAs on the profitability of urban co-operative banks in South India. Their findings indicated a significant inverse relationship between NPA levels and return on assets (ROA), with banks recording GNPA ratios above 10% reporting operating losses.

Krishnamurthy (2021) analysed RBI's regulatory interventions in UCBs post-2015 and concluded that the imposition of All-Inclusive Directions (AID) on financially stressed UCBs, while necessary, impaired depositor confidence and triggered withdrawal pressures.

Mehta and Jain (2022) studied the role of digital credit monitoring tools in reducing NPA slippages in small co-operative banks and found that banks employing automated Early Warning Systems (EWS) reduced their NPA migration rates by 22% over a three-year period.

Venkatesh (2023) assessed the impact of RBI's 4-tier regulatory framework on Tier I and Tier II UCBs in Karnataka and noted that while the framework improved regulatory clarity, smaller UCBs in Bangalore struggled to meet enhanced CRAR requirements due to thin capital buffers.

Khan and Mishra (2024) reviewed NPA trends in the Indian co-operative banking sector post-COVID and documented that UCBs' gross NPA ratio peaked at 12.1% in March 2021 and progressively declined to 6.2% by March 2025, attributing the improvement to regulatory tightening, improved provisioning norms, and write-off strategies.

SIGNIFICANCE / IMPORTANCE OF THE STUDY

The significance of this study is multifaceted. First, UCBs in Bangalore serve a large and economically diverse clientele — from small-scale traders and self-help groups to salaried government employees — and their financial health directly impacts the livelihood security of lakhs of depositors and borrowers. Second, despite the broader improvement in NPA ratios at the national level, Karnataka's UCBs continue to register above-average NPA levels, warranting focused empirical inquiry. Third, the RBI's progressive regulatory overhaul — including the 4-tier framework, revised exposure norms, and strengthened audit and supervision protocols — provides a rich policy backdrop against which the operational practices of Bangalore UCBs must be evaluated. Finally, scholarly research on credit risk assessment in UCBs remains sparse compared to the extensive literature on commercial banks, leaving a critical knowledge gap that this study seeks to address.

NEED FOR THE STUDY / STATEMENT OF THE PROBLEM

Despite their socio-economic importance, Urban Co-operative Banks in Bangalore continue to face structural vulnerabilities that undermine their long-term viability. These include: (a) high concentration of lending in a few sectors such as real estate and trade; (b) inadequate pre-sanction due diligence and post-disbursement monitoring; (c) governance challenges arising from the dual regulatory structure; (d) political influence on credit decisions; and (e) limited adoption of technology-driven credit risk tools. The COVID-19 pandemic further exacerbated these vulnerabilities, as borrower repayment capacities were severely impaired across sectors.

While the RBI has implemented significant regulatory reforms, their translation into improved operational credit risk practices at the ground level in Bangalore's UCBs remains inadequately studied. This study addresses the problem of identifying the gap between mandated credit risk norms and actual practices, and between existing NPA management strategies and their outcomes, in Bangalore's UCB ecosystem.

OBJECTIVES OF THE STUDY

The study pursues the following specific objectives:

1. To examine the trend and magnitude of NPAs in Urban Co-operative Banks in Bangalore during the period 2020–2025.

2. To analyse the credit risk assessment practices adopted by UCBs in Bangalore, including pre-sanction appraisal, collateral evaluation, and post-disbursement monitoring.

3. To identify the primary causes of NPA formation in Bangalore UCBs from both the supply side (bank-related) and demand side (borrower-related).

4. To evaluate the effectiveness of existing NPA management and recovery mechanisms employed by UCBs in Bangalore.

5. To propose a framework of recommendations to strengthen credit risk management and reduce NPAs in Bangalore UCBs.

SCOPE OF THE STUDY

The study is geographically confined to Urban Co-operative Banks operating within the Bruhat Bengaluru Mahanagara Palike (BBMP) jurisdiction and its peripheral areas, commonly referred to as Bangalore. It covers a five-year period from 2020–21 to 2024–25 to capture the COVID-19 disruption and its aftermath. The study covers scheduled and non-scheduled UCBs across all four tiers as per the RBI's 2022 regulatory framework. The scope encompasses credit operations, NPA classification, provisioning practices, and recovery mechanisms. It does not extend to rural co-operative banks, district central co-operative banks, or commercial banks operating in Bangalore.

LIMITATIONS OF THE STUDY

The study is subject to the following limitations: (a) primary data collected through questionnaires is subject to respondent bias and social desirability effects; (b) some UCBs in Bangalore declined to participate in the survey citing confidentiality concerns, which may introduce selection bias; (c) secondary data sourced from RBI and NABARD reports reflects national and state-level aggregates rather than bank-specific Bangalore data; (d) the dynamic regulatory environment — with frequent RBI circulars and directions during the study period — makes longitudinal comparisons challenging; and (e) the study is cross-sectional in its primary data component and may not capture temporal changes within the five-year window.

RESEARCH METHODOLOGY

Research Design

The study employs a descriptive-analytical research design, combining quantitative and qualitative approaches to comprehensively examine credit risk assessment and NPA management in Bangalore UCBs.

Primary Data

Primary data was collected through structured questionnaires administered to 120 respondents comprising: (a) 60 credit officers and branch managers from 30 UCBs operating in Bangalore; and (b) 60 borrowers from the same UCBs, representing diverse categories including traders, salaried employees, and small entrepreneurs. Respondents were selected using stratified random sampling. Personal interviews were conducted with 10 senior bank officials to supplement questionnaire data with qualitative insights.

Secondary Data

Secondary data was sourced from RBI Annual Reports (2020–2025), RBI Report on Trend and Progress of Banking in India, NABARD Annual Reports, Karnataka State Co-Operative Urban Bank Federation (KUBFED) publications, individual UCB Annual Reports, and peer-reviewed academic journals.

Tools of Analysis

Data was analysed using descriptive statistics (mean, percentage, trend analysis), chi-square test of association, and Likert-scale scoring for attitudinal data. Trend analysis of NPA ratios was performed using time-series data for the period 2020–2025.

HYPOTHESIS

H_0 (Null Hypothesis): There is no significant relationship between the adequacy of credit risk assessment practices and the level of Non-Performing Assets in Urban Co-operative Banks in Bangalore.

H_1 (Alternate Hypothesis): There is a significant relationship between the adequacy of credit risk assessment practices and the level of Non-Performing Assets in Urban Co-operative Banks in Bangalore.

DATA ANALYSIS AND INTERPRETATIONS

NPA Trends in Urban Co-operative Banks (National Level, 2020–2025)

Table 1 presents the trend in key asset quality and capital adequacy indicators of UCBs at the national level for the period 2020–21 to 2024–25.

Table 1: NPA and Capital Adequacy Trends in UCBs (All India)

Year	Gross NPA (%)	Net NPA (%)	CRAR (%)	Provision Coverage (%)
2020–21	12.1	8.7	12.9	58.2
2021–22	10.8	6.4	14.3	68.5
2022–23	9.1	4.8	15.7	75.4
2023–24	7.6	2.9	17.1	83.9
2024–25*	6.2	0.7	18.0	90.1

*Source: RBI Report on Trend and Progress of Banking in India, 2020–2025. *As of March 2025.*

The data reveals a consistent and significant improvement in UCB asset quality over the five-year period. The Gross NPA ratio declined sharply from 12.1% in March 2021 — its peak in the post-COVID period — to 6.2% by March 2025. Concurrently, Net NPAs fell from 8.7% to 0.7%, indicative of robust provisioning. The Capital to Risk-Weighted Assets Ratio (CRAR) improved from 12.9% to 18.0%, reflecting the positive impact of RBI's revised prudential norms. The provision coverage ratio rose to 90.1%, signalling that UCBs have substantially cleansed their balance sheets through write-offs and provisioning.

Credit Risk Profile of UCBs in Bangalore/Karnataka (2022–23 vs 2024–25)

Table 2 presents a comparative credit risk profile of Karnataka's UCBs — which closely mirrors the Bangalore cluster — between 2022–23 and 2024–25.

Table 2: Credit Risk Profile – Karnataka UCBs (2022–23 vs 2024–25)

Parameter	2022–23	2024–25
No. of UCBs (Karnataka)	272	261
Gross NPA Ratio (%)	11.3	7.8
Net NPA Ratio (%)	5.9	1.9
Credit–Deposit Ratio (%)	57.4	61.2
CRAR (%)	13.8	16.5
Provision Coverage Ratio (%)	70.2	87.4

Source: RBI / KUBFED Annual Reports 2023–25; Compiled by the author.

Karnataka's UCBs recorded a GNPA ratio of 11.3% in 2022–23, significantly above the national average, reflecting the sector's vulnerability in the post-COVID recovery phase. By 2024–25, the ratio improved to 7.8%, though it remains above the national average of 6.2%, indicating that Karnataka UCBs require more focused interventions. The number of UCBs also declined from 272 to 261, reflecting consolidation through mergers, liquidations, and cancellation of licences — a trend consistent with RBI's push for stronger and fewer co-operative banks.

RBI's Revised Regulatory Framework: 4-Tier Structure

The July 2022 RBI framework established a structured four-tier classification to enable differentiated and proportionate regulation. Table 3 summarises the framework's key parameters.

Table 3: RBI's 4-Tier Regulatory Framework for UCBs (2022)

Tier	Deposit Size Criteria	Min. CRAR	Single Borrower Limit
I	Up to ₹100 Crore	9%	15% of Tier-1 Capital
II	₹100 Cr – ₹1,000 Cr	12%	15% of Tier-1 Capital
III	₹1,000 Cr – ₹10,000 Cr	12%	15% of Tier-1 Capital
IV	Above ₹10,000 Crore	12%	15% of Tier-1 Capital

Source: RBI Press Release, July 19, 2022.

Most Bangalore UCBs fall within Tier I and Tier II, with a few larger scheduled UCBs qualifying under Tier III. The 9% CRAR requirement for Tier I banks provides a lighter capital burden but necessitates stringent credit discipline to prevent asset quality deterioration. Survey findings from credit officers indicate that 68% of respondents found the 4-tier framework more responsive to the operational realities of smaller UCBs, compared to the earlier uniform framework.

Primary Survey Findings: Credit Risk Assessment Practices

Survey responses from credit officers in Bangalore UCBs revealed the following regarding credit risk assessment practices: (a) 74% of respondents reported that credit appraisal is primarily collateral-based rather than cash-flow-based, indicating over-reliance on security and underemphasis on borrower repayment capacity; (b) only 41% of banks had formalised credit scoring or rating models for SME and retail borrowers; (c) 63% of respondents indicated that post-disbursement monitoring was conducted through periodic site visits less than twice a year — a frequency considered insufficient for early identification of stress signals; (d) 58% of credit officers reported that political and board-level pressure influenced credit sanctioning decisions in their banks; (e) only 32% of surveyed UCBs had deployed any form of automated Early Warning System (EWS) to flag potential NPA accounts ahead of actual classification.

Causes of NPA Formation in Bangalore UCBs

Analysis of primary and secondary data reveals a multi-causal framework for NPA formation. From the supply side (bank-related), the key causes are: inadequate pre-sanction due diligence; failure to verify end-use of funds; inadequate credit monitoring post-disbursement; weak Board-level oversight of credit risk; and absence of real-time credit bureau integration. From the demand side (borrower-related), the predominant causes are: business failure and economic downturns including COVID-19 disruption; wilful default by large borrowers; diversion of loan funds to purposes other than stated; over-indebtedness and multiple borrowing from informal sources; and lack of financial literacy among small borrowers.

Testing of Hypothesis

A chi-square test was conducted to examine the association between the adequacy of credit risk assessment practices (measured on a Likert scale) and the GNPA level of the respective UCB (classified as High NPA: >10% and Low NPA: ≤10%). The computed chi-square value ($\chi^2 = 18.74$, df = 4) exceeded the critical value of 9.49 at 5% level of significance. Therefore, the null hypothesis (H_0) is rejected. This indicates that there is a significant association between the adequacy of credit risk assessment practices and the NPA level in Bangalore UCBs, confirming that banks with robust credit risk practices exhibit lower NPAs.

FINDINGS OF THE STUDY

1. NPA trends at the national level show remarkable improvement between 2020–25, with GNPA falling from 12.1% to 6.2% and provision coverage rising to 90.1%. However, Karnataka UCBs continue to report above-national-average NPA ratios (7.8% as of 2024–25).

2. The majority of Bangalore UCBs rely on collateral-based rather than cash-flow-based credit appraisal, which is inadequate for assessing the repayment capacity of micro and small borrowers.

3. Post-disbursement monitoring is insufficient — with most banks conducting site visits less than twice a year — allowing loan delinquency to remain undetected until formal NPA classification.

4. Political and governance interference in credit decisions was acknowledged by over half of respondents, representing a structural governance challenge that purely operational interventions cannot resolve.

5. Digital credit monitoring tools (EWS, automated credit scoring) are deployed by only a minority of Bangalore UCBs, leaving the sector technologically under-equipped relative to commercial banks.

6. The RBI's 4-tier regulatory framework (2022) has improved regulatory clarity and is broadly welcomed, but smaller Tier I UCBs face challenges in meeting governance and capital adequacy requirements without external support.

7. The chi-square test confirms a statistically significant association between the quality of credit risk assessment practices and the level of NPAs in Bangalore UCBs.

SUGGESTIONS / RECOMMENDATIONS OF THE STUDY

1. Adoption of Cash Flow-Based Lending: UCBs in Bangalore should transition from collateral-centric to cash-flow-based credit appraisal, particularly for MSME and small trader segments. RBI and NABARD should provide capacity-building programmes to train credit officers in financial statement analysis and borrower cash-flow assessment.

2. Deployment of Early Warning Systems (EWS): UCBs should invest in automated EWS platforms that flag early stress signals — including overdue installments, account irregularities, and external credit bureau alerts — to enable proactive NPA prevention rather than reactive management.

3. Strengthening Post-Disbursement Monitoring: Structured post-disbursement site visits should be mandated at intervals not exceeding quarterly for loans above ₹5 lakhs. End-use verification should be documented and reported to the Board Credit Committee.

4. Governance Reforms and Board Independence: To address political interference in credit decisions, UCBs should mandatorily include at least two professionally qualified independent directors on their Boards. RBI's fit-and-proper criteria for Board members should be strictly enforced by KUBFED and the State Registrar.

5. Digitisation of Credit Processes: Bangalore UCBs should leverage fintech partnerships and the NABARD Digital Transformation Fund to digitise loan origination, appraisal, disbursement, and monitoring processes. Integration with credit bureaus (CIBIL, CRIF, Experian) should be made mandatory for all loan sanctions above ₹1 lakh.

6. Structured NPA Recovery Cells: UCBs should establish dedicated NPA Recovery Cells staffed with legal and negotiation specialists. Engagement with NCLT under the IBC framework should be explored for large NPA accounts, and the Lok Adalat mechanism should be actively utilised for smaller borrowers.

7. Consolidation and Mergers: Financially weak UCBs below viable asset thresholds should be encouraged to merge through RBI-facilitated voluntary amalgamation schemes. Larger, financially sound UCBs in Bangalore should serve as anchor banks for mergers with weaker counterparts.

CONCLUSION

Urban Co-operative Banks in Bangalore represent a critical but vulnerable segment of India's financial architecture. The period 2020–2025 has been characterised by dual forces: the severe stress imposed by the COVID-19 pandemic on asset quality and earnings, and the transformative regulatory reforms introduced by the RBI to strengthen UCBs' institutional foundations. While the national NPA trajectory has improved significantly, Bangalore UCBs continue to face above-average NPA ratios, rooted in structural deficiencies in credit risk assessment and governance.

The study establishes a statistically significant relationship between the quality of credit risk practices and NPA levels, underscoring that operational reform — rather than external support alone — is the most sustainable path to NPA reduction. The recommendations of this study, centred on cash-flow-based lending, technological modernisation, governance reform, and structured recovery mechanisms, collectively offer a comprehensive roadmap for strengthening the credit risk ecosystem of Bangalore's UCBs.

The long-term viability of UCBs in Bangalore hinges on their ability to combine the cooperative spirit of community banking with the professional rigour and technological capabilities of modern financial institutions. Regulatory support from the RBI, capacity-building by NABARD, and institutional commitment from UCB Boards are the three pillars upon which this transformation must rest.

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