IJARSCT

International Journal of Advanced Research in Science, Communication and Technology

International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal

ISSN: 2581-9429

Volume 5, Issue 2, April 2025

Impact Factor: 7.67

Integrating Sustainability in Credit Risk Assessment: A Study of Indian Banks

Rutuja Kadam, Harsh Vardhan Rajput and Prof. Sashikumar Bhambhani

Parul Institute of Engineering & Technology, Faculty of Management Studies,

Parul University, Vadodara, Gujarat, India

Abstract: *The integration of sustainability factors in credit risk assessment is increasingly gaining attention within the banking sector. This study examines how Indian banks incorporate environmental, social, and governance (ESG) criteria in their credit risk assessment frameworks. The research explores regulatory developments, challenges, and best practices in sustainable credit risk assessment.*

Keywords: Indian banks incorporate environme*ntal*

I. INTRODUCTION

The financial sector plays a crucial role in promoting sustainable development. Traditional credit risk assessment focuses on financial and operational risks, but there is a growing need to integrate sustainability factors. Indian banks, influenced by global sustainability trends and regulatory expectations, are adopting ESG-driven credit risk evaluation models. This study aims to analysis the current state, challenges, and future directions of sustainability integration in credit risk assessment among Indian banks.

Background Statement

In recent years, the global financial sector has increasingly recognized the importance of integrating Environmental, Social, and Governance (ESG) factors into credit risk assessment. This shift is driven by the understanding that sustainability-related risks can significantly impact the financial performance and stability of lending institutions. In India, the Reserve Bank of India (RBI) has acknowledged climate change as a financial concern and has initiated steps to address climate-related financial risks, including releasing a draft disclosure framework in 2024 and a discussion paper on climate risk strategies in 2022

Problem Statement

The primary challenge facing Indian banks is the effective integration of ESG factors into their credit risk assessment frameworks. This integration is hindered by several factors, including a lack of standardized ESG data, limited regulatory guidance, and insufficient internal expertise. Addressing these challenges is crucial for enhancing the resilience of the Indian banking sector against sustainability-related risks and for promoting responsible lending practices that support sustainable development.

Research Objectives

This study aims to:

- Identify the challenges and barriers hindering effective ESG integration.
- Explore best practices and strategies adopted by leading institutions to incorporate sustainability into credit risk assessment.
- Provide recommendations to enhance the integration of ESG factors in the credit risk assessment frameworks of Indian banks.
- Banks that adopt sustainability-linked credit assessment models experience a reduction in non-performing assets (NPAs).

IJARSCT
International Journal of Advanced Research in Science, Communication and Technology
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
ISSN: 2581-9429 Volume 5, Issue 2, April 2025 Impact Factor: 7.67

HYPOTHESIS

H_1 (Alternative Hypothesis):Integration of ESG factors into credit risk assessment enhances the financial performance of Indian banks**.**

Rationale: Incorporating Environmental, Social, and Governance (ESG) criteria is believed to improve risk management, potentially leading to better financial outcomes for banks. IJCRT

H_0 (Null Hypothesis): Banks that adopt sustainability-linked credit assessment models experience a reduction in non-performing assets (NPAs).

Rationale: Implementing sustainability-focused credit assessment models may lead to more prudent lending practices, potentially resulting in lower NPAs

II. LITERATURE REVIEW

Kumar and Aggarwal (2022) studied the corporate response to climate change in India. They find a significant association between financial and climate performance of companies. Using information obtained from sustainability report and the CDP responses of selected companies in India, they observe a positive significant correlation between climate-positive responses with the fi rm profitability.

Maji and Kalita (2022) have examined the climate-related disclosures of listed Indian fi rms and their impact on fi rm performance in the energy sector. Their paper reveals that fi rms can gain through performance improvement by disclosing more on climate change.

Rao (2021) summarises the efforts by the RBI to assess the climate-related financial risks and incentivise sustainable fi nance in India at macro as well as sectoral levels.

Ghosh et al (2021), in their research paper, have demonstrated that extreme weather events can increase inflation in India. Using panel data of selected coastal states of India, their regression results provide empirical evidence that natural

(Rajeswari., 2014) the study identified various credit risks in scheduled banks and methodologies followed by banks to reduce risks, these by creating a better understanding of credit risks in Banking Sector. Only those banks that have effective risk management procedure will survive in the long run market

III. RESEARCH METHODOLOGY

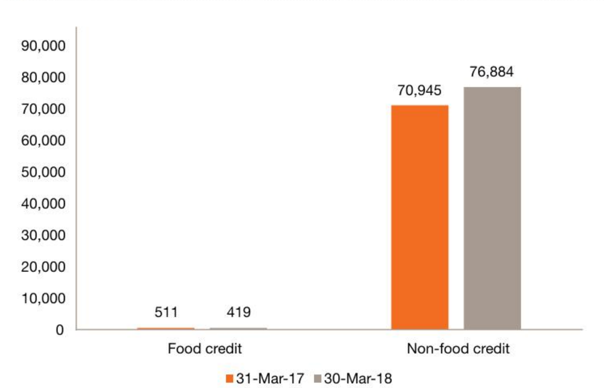
This research has a descriptive and analytical research design to analyse
Integrating Sustainability in Credit Risk Assessment: A Study of Indian Banks

IV. DATA COLLECTION

Secondary Data: Reports, laws, and research papers, research data case studies.

DATA INTERPRETAION

Figure 1: Deployment of gross bank credit by major sectors (billion INR)

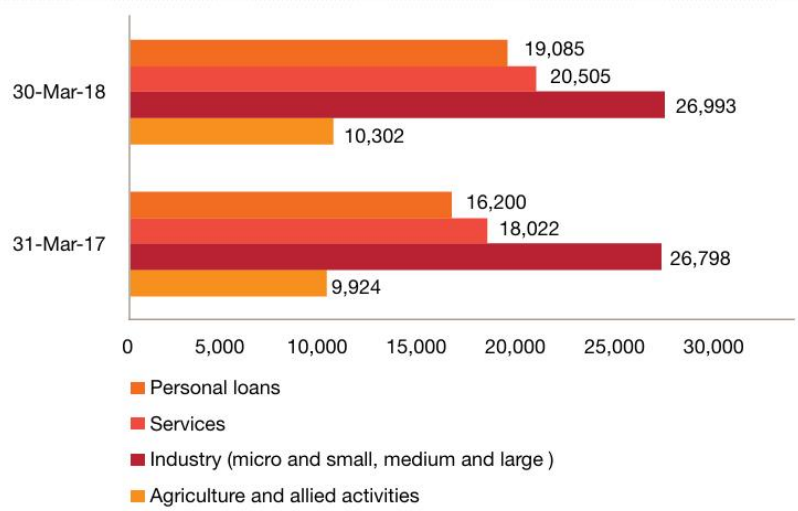


DOI: 10.48175/568

IJARSCT
International Journal of Advanced Research in Science, Communication and Technology
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
ISSN: 2581-9429 Volume 5, Issue 2, April 2025 Impact Factor: 7.67

As per the data published by the RBI, a YoY growth of 8% has been witnessed in non-food credit (Figure 1). A close look at the components of non-food credit reveals that it comprises agriculture, industry and personal loans, all of which showed an increasing trend for the year ended March 2018

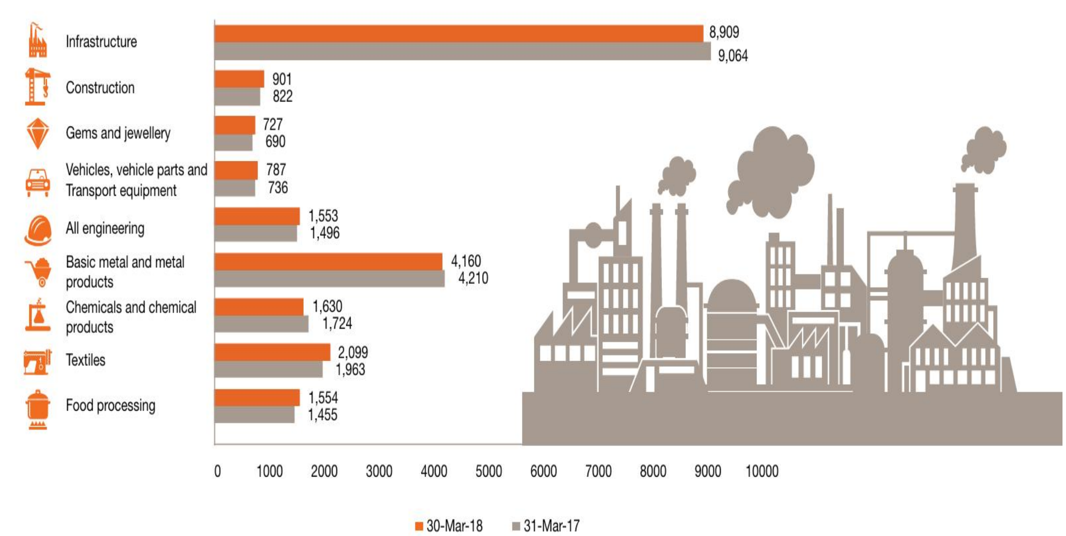
Figure 2: Deployment of gross bank credit across major sectors – non-food credit (billion INR)



Demystifying credit assessment in banks: An Indian perspective

(Figure 2) The personal loan space and loans to the service sector are steadily growing. To dig deeper, if we analyse the gross credit across industry (micro and small, medium and large), the top 10 industries

Figure 3: Gross bank credit across top 9 industries



(see Figure 3 below) comprise almost 90% of the credit extended in the industry division. The largest credit exposure is to the infrastructure industry, followed by the metal and textile industry.

CASE STUDIES OF INDIAN BANKS

Green Bonds: SBI has been proactive in integrating ESG principles by issuing green bonds worth $650 million to fund renewable energy projects.

Sustainable Practices: SBI has adopted various sustainability practices which are core to its operations, illustrating its commitment to ESG goals (Medium, LinkedIn).

ICICI Bank Sustainability Reports: ICICI Bank has been actively publishing sustainability reports and annual reports detailing their ESG initiatives from fiscal years 2019-2020 to 2021-2022 (ResearchGate).

Broader Industry Efforts G20 Summit Preparations: Prior to the G20 summit in December 2022, the Indian Banks' Association (IBA) assembled a group of banks to address ESG issues, focusing on sustainability and green financing (Finacle).

ESG FINANCIAL PERFORMANCE AND ESG PRACTICES

Sustainability Reporting Practices Banks with robust sustainability reporting frameworks and dedicated board sustainability committees generally show higher financial performance (Impact of Sustainability Reporting Practices on Financial Performance).

ESG Scores Higher ESG scores significantly influence the financial performance of Indian banks, leading to increased trust and alignment with investor values (Sustainable Banking in India:

An Empirical Study of ESG). Corporate Sustainability Reporting Top priorities under sustainability reporting practices (SRP) in Indian banks include financial inclusion, green technology, and financial literacy, which contribute to improved financial outcomes (Corporate sustainability reporting practices in the banking sector).

Environmental Reporting Improvements Improvements in environmental reporting practices among Indian banks from 2011 to 2022 are positively correlated with their financial performance (A Glance into Indian Banking Sector).

Empirical Methods for Assessing Climate Risk Climate-Adjusted EDF Framework Quantifies the impact of climate on corporate credit risk by incorporating physical and transition risk models to adjust the Expected Default Frequency (EDF) based on climate factors (Moody's).

Carbon Delta Methodology Obtains credit ratings reflecting transition risks through systematic assessment of carbon intensity and sectoral exposures (CEP). Challenges in ESG Implementation

V. CHALLENGES IN ESG IMPLEMENTATION

- Lack of Standardization The absence of standardized ESG metrics complicates the reporting and assessment processes for banks (Unified ESG Framework: India's Approach to Sustainable).
- Regulatory Uncertainties Confusion regarding regulations can lead to inconsistent application of ESG criteria across different institutions (The Transformative Role of Sustainable Finance in Indian).
- High Reporting Costs The costs associated with transitioning to sustainable models and the complexity of reporting are substantial (Indian Banks adopting to ESG Practices)

VI. RESULTS, FINDINGS and LIMITATIONS OF THE STUDY:

Several obstacles hinder the effective integration of sustainability into credit risk assessment in India:

Data Limitations**:** The lack of standardized and reliable ESG data complicates the assessment process. A study emphasizes that the absence of standardized ESG data and frameworks poses challenges for banks attempting to incorporate sustainability considerations into their credit risk processes.

Regulatory Framework**:** While the Reserve Bank of India (RBI) has initiated discussions on climate-related financial risks, comprehensive guidelines are still under development. In 2024, the RBI released a draft disclosure framework addressing these concerns.

IJARSCT

International Journal of Advanced Research in Science, Communication and Technology

International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal

ISSN: 2581-9429 Volume 5, Issue 2, April 2025 Impact Factor: 7.67

Expertise and Awareness**:** There is a need for enhanced expertise and awareness among banking professionals regarding sustainable finance and climate risk management. A paper underscores the necessity for banks to adopt proactive strategies to manage and mitigate climate risks effectively. Indian Institute of Banking & Finance

VII. CONCLUSION

The integration of ESG considerations into credit decision-making processes among Indian banks aims to measure a company's resilience to long-term, industry-specific ESG risks. By doing so, banks enhance their stability and sustainability, aligning with regulatory frameworks and global best practices. Despite the challenges, the growing commitment to ESG principles reflects a broader trend towards sustainable finance in India.

The aim of credit risk Assessment is to reduce the probability of loss from a credit transaction and implement the practices of risk management in a good manner. In this way it is needed to meet the goals and objectives of banks. After the study of the literature reviews it has been concluded that the researcher found few problems regarding to credit risk management practices in India. These policies list out the target markets, risk acceptance levels or risk tolerance limits. The risk management practices in the Bank will result in Bank emerging stronger, which in turn would confer competitive advantage in the market.

REFERENCES

[1]. Bodla B. S, VermaRicha (2007). Credit Risk Management Framework at Banks in India. Radhakrishanan R, Ravi B (2009). Adoption of Basal II Norms: Are Indian Banks Ready? www.indianmba.com / occasional _papers / op 206/op206.html

[2]. Banerjee A (2011). Risk management in banking sector: An overview. Mgmt Acct 46: 67 -82.

[3]. Barros C, P Managi S, Matousek R (2012). The technical efficiency of the Japanese banks: Non radial directional performance measurement with undesirable output.

[4]. Omega. 40: 1-8. Singh Asha (2013). Credit Risk Management in Indian Commercial Banks, International Journal of Marketing, Financial Services & Management Research, 2(7), ISSN2277- 3622.

[5]. Murthy C. Mahadeva&Pathi S.N (2013). “An assessment of Risk Management in Banking sector: A study with special reference to public and private sector banks in India”, 4(3), 0976 – 6324, 0976 - 6332.

[6]. Shukla Smita&Malusare Rakesh (2014). “Risk Analysis of Select Public and Private Sector Banks Operating in India”,IOSR Journal of Economics and Finance, 2321 - 5933, 2321 - 592, 48-59.

[7]. KurneRoopa (2014).“Credit Risk Management in Indian Banking System”, IJAAR, 2(2), Nov-Dec 2014, 2347 - 7075. Rajeswari M (2014). “A Study on Credit Risk Management in scheduled Banks”, International Journal of Management, 5(12), 0976 - 6502, 0976 - 6510. Singh Asha (2015). “Effect of