Sustainable banking: The Strategies Followed by Indian Public Sector Banks

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Abstract
This study investigated the uptake and adoption of sustainable banking practices in Indian Public Sector Banks (PSBs), with a specific emphasis on Environmental, Social and Governance (ESG) integration, using a qualitative-dominant mixed-method approach based only on secondary data. The study examined how banks are integrating sustainability into governance, banking products, risk assessment, and inclusive lending based on an examination of ESG disclosures, regulatory filings and sustainability reports for SBI, BoB, PNB, and Canara Bank. The findings indicate that larger PSBs such as SBI and BoB are industry leaders in sustainability, with disciplines in ESG governance, issuing green bonds, integrating climate risk, and complying and aligning with global standards like the TCFD and the UN SDGs. Mid-sized PSBs, on the other hand, were simply reacting to regulatory requirements to establish a strategy for sustainability at the expense of having capacity and coherent implementation. The study also showed that the PSBs show regional and demographic bias in their willingness to finance green initiatives, and more importantly, less focused outreach to rural and vulnerable populations. In summary, the study finds that although there are policy frameworks in place, enforcement is weak, and there are internal capacity gaps that remain problematic. For PSBs to fulfill their intended role as an agent of change in India's sustainability agenda, sustainability will need to be integrated into every aspect of all banking functions, supported by regulatory guidance, technology and capacity building.

1. Introduction

The last two decades have seen significant change in the global financial sector as financial systems have recognized a need for a shift towards aligning with environmental sustainability, social responsibility and ethical governance. Sustainable banking is one form of innovative practice that has emerged out of this global shift to integrate Environmental, Social and Governance (ESG) criteria into the banking environment, in terms of risk assessment, banking function and strategic management, which normalises new principles into existing policy frameworks. Unlike conventional banking which is driven by financial returns, sustainable banking aims to create long-term value, balancing the interests of shareholders with a societal good and responds to pressing global issues related to climate change, depletion of resources, inequality and social isolation.

Sustainable banking is based on the dual principles of incorporating social equity and environmental care with economic activity. The 2008 global financial crisis was a tipping point for recognition of the fragility of conventional banking systems and the necessity for resilient, accessible and responsible financial institutions. Many banks have globally begun to implement practices aligned with the United Nations' Sustainable Development Goals (SDGs) with a commitment to finance sustainable projects such as clean energy, sustainable consumption, inclusive economic growth and addressing inequalities.

In terms of banking practices, there are different levels of sustainable banking but the key subset is green banking as it specifically addresses environmental sustainability in banking activities. This may include green banking activities like funding renewable energy projects, offering green loans and green bonds, fostering paperless digital banking methods, and building eco-friendly energy-efficient infrastructure. In India, banks have implemented several green banking practices like switching to digital channels for their services to minimize paper consumption and some banks are offering interest rates discounts and incentives for electric vehicle loans and solar panel installations.

While green banking is distinctly environmentally-focused, sustainability banking is the more all-encompassing and integrated approach that also embraces social issues such as financial inclusion, gender equality, healthcare and education, among others, as all these taken together meet the criteria of sustainability. Social inclusion has resulted in sustainable banking and investment also being inherently linked with sustainable procurement, climate risk assessment, Corporate Social Responsibility (CSR), and green finance within banks' product and service offerings. The integration of these elements also shows that green banking is a form of sustainable banking because sustainability takes three separate aspects: environmental, social, and governance (ESG).

At a global level, the Global Alliance for Banking on Values represents the global network of financial institutions committed to sustainability-led banking. For instance, Éthique Bank or Triodos Bank show that banking can be a vehicle for environmental and social changes by funding renewable energy, organic agriculture, and ethical housing without losing integrity, transparency, and trust from stakeholders. These themes and examples of best practices could be beneficial for banks spanning worldwide including India.

In India, Public Sector Banks (PSBs) have an important function in finance for development and advancing financial inclusion. Given their importance, Indian regulators such as the Reserve Bank of India (RBI) and the Securities and Exchange Board of India (SEBI) have issued guidelines to assist with CSR, ESG disclosures and sustainable finance. Indian PSBs began to make serious progress toward the goal of sustainability in the mid-2000s by offering green loans, issuing green bonds, integrating green solutions, and moving to digital banks for reduced environmental impact. Leading this transition have been the State Bank of India (SBI), Punjab National Bank (PNB), and Bank of Baroda (BoD), which have deliberately integrated ESG principles and guidelines into their lending and operational processes.

Despite the above progress, Indian banks are not yet ready to fully implement sustainable banking practices. Efforts are continued across all these banks and include challenges such as the high costs of green technologies, lack of ESG training for bank staff, and the lack of meaningful standardized sustainability metrics. The global push towards sustainability, technological alignments, and government policies suggest promise in the pursuit of sustainable banking in India.

This research paper is about analyzing the adaptation of sustainable banking in India in the Public Sector Banks. It analyzes how Public Sector Banks have integrated ESG initiatives, supported green finance avenues, adopted sustainable technologies, and complied with the national and global agendas for sustainable development goals. This research paper contributes to the growing research agenda around sustainable finance by investigating some of the critical strategies taken towards sustainable banking, as well as the policies and practices offered some key research examples that will provide insights for policymakers, regulators, and banking professionals who aim for a more inclusive and sustainable financial future.

2. Objectives

1. To analyze the definition and components of sustainable banking in the context of public sector banks (PSBs) in India.
2. To identify and analyze the core sustainable banking strategies utilized by Indian PSBs.

3. Literature review

3.1 Purpose and Scope

This literature review seeks to provide a critical examination of the evolving understanding of sustainable banking, especially in relation to India's public sector banks (PSBs). Sustainable banking involves the process of including environmental, social, and governance (ESG) concerns into banking business practices, risk processes, as well as strategic decision-making of banks (Jeucken, 2001; Weber, 2005). Further, India's public sector banks have long played an important role in facilitating financial accessibility, poverty alleviation, and national development issues, and so now is a particularly pertinent time to examine this.

In relation to sustainable banking practices, we are starting to see Indian public sector banks (PSBs) make a shift towards sustainable banking principles primarily through green financing, ESG disclosures, and responsible lending principles. The State Bank of India (SBI) for instance is active in issuing green bonds, as well as employing frameworks like the UN Principles for Responsible Banking (SBI, 2020; World Bank, 2020). Notably too, regulatory bodies like the Securities and Exchange Board of India (SEBI) and the Reserve Bank of India (RBI) have been strengthening the sustainability disclosures and reporting frameworks as is evident through the Business Responsibility and Sustainability Reports (BRSR) that are now mandatory for multiple PSBs (SEBI, 2021).

3.2 Overview and Theoretical Foundation

Sustainable banking has shifted from a simple corporate social responsibility obligation to an overarching framework that builds upon the United Nation Sustainable Development Goals and climate objectives. The evolution of this model includes critical global milestones that serve as beacons to transitional growth, including the Equator Principles (2003) and the establishment of the Principles for Responsible Banking (2019). In India, the Companies Act (2013) and the RBI guidelines demonstrated regulatory participation while continuing enforcement of ESG-type engagement with the recent impositions of the ESG mandates.

The conceptual basis for sustainable banking can be framed around three subject areas: Stakeholder Theory (Freeman, 1984), Institutional Theory (Scott, 2001), and Resource-Based View (Barney, 1991), that will explain why banks engage with ESG principles and how they provide strategic advantage to banks. Sustainable banking is perceived to be a basic requirement to achieve resilience, social relevance, and competitiveness for PSBs.

3.3 Global Literature Review

Much has been published globally around the shift in banking from marginal or peripheral CSR initiatives to consequential ESG frameworks. Jeucken (2001), Weber (2005) tracked the responsibilities banks possess in regards to environmental risk and their potential impact on sustainable development. Voluntary standards, such as the Equator Principles (2003) and UNEP-FI (2007), have been demonstrated to advance bank integration of ESG requirements in project finance environments as they restrict reputational risks (Buchetti, B., Campi, S., & De Vincentiis, P., 2019). Banks that accepted ESG began to experience improved performance in profit, long-term profitability and risk-adjusted returns (Busch, T., Bauer, R., & Orlitzky, M., 2016). Today, in developed economies, notably across the EU and North America have regulated ESG by creating policy to institutionalize ESG objectives. Emerging markets are still negotiating systemic capacity, reflecting the limitations in ESG creative growth (IFC, 2020).

3.4 Indian Literature Review

Early research in India found few sustainable banking practices (Murari & Kaur, 2009), and PSBs were found to lag behind private and foreign banks in implementing ESG practices (Das, 2014). Over time, PSBs such as SBI and Bank of Baroda have chosen to adopt some aspects of green finance and sustainability practices (Sharma & Kiran, 2017; Meena, 2020). Most of the studies in India have identified fragmented sustainable banking choices and also comparatively less amount of sustainability disclosures from PSBs compared to private banks (Rajput, N., Arora, S., & Khanna, A., 2018). Recent studies highlight increasing pressure from regulators and machinations of technology such as digitalisation and green fintech (Ghosh & Das, 2023).

3.5 Government Policy Overview

The regulatory architecture built by government agencies such as RBI, SEBI and MOF have played a considerable role in the context of sustainable banking in India. The RBI issued guidance on climate risk and ESG (2021), SEBI issued the BRSR framework (2021) and Section 135 of the Companies Act (2013) mentions that companies have to make CSR investments. The rollout of sovereign green bonds and the Sustainable Finance Roadmap issued by the IFSCA (2022) shows some regulatory momentum towards sustainable banking.

3.6 Gaps in the Existing Literature

There are significant gaps regarding the operationalisation of ESG practices in PSBs, studies on the perspective of stakeholders, and interdisciplinary approaches. There are few recent empirical studies of the impact of ESG on practices at the branch-level or studies that explain how policies and regulations are applied in regional PSBs. This project will address these gaps through an empirical analysis of ESG practices in Indian PSBs.

4. Research Methodology

4.1 Research Approach

The study employs a qualitatively-dominant mixed-methods methodology, using secondary data to examine how Indian public sector banks (PSBs) are establishing and implementing sustainable banking practices; e.g., green finance, ESG integration, and inclusive lending. Given the multi-disciplinary nature of sustainability (covering environmental, economic, and regulatory aspects), this mixed-methods approach allows the presentation of a richer account than a single-method methodological design could achieve. As articulated in the methodology, this research was developed using entirely secondary data from documents prepared by banks and PSBs, bank sustainability reports, ESG disclosures, regulatory bodies' guidance documents, global sustainability frameworks, and so on, rather than collecting primary data.

4.1.1 Qualitative Methodology

The research methodology is qualitative, situated in the interpretivist paradigm. The research uses thematic content analysis of the narratives, strategies, and reports issued by PSBs, or regulatory authorities. The researcher aims to find multiple methods of interpreting how banks are communicating sustainability goals, assessing environmental risks, and their commitment to ESG principles. An examination of prominent (frameworks) issued by regulatory authorities will further contextualize how banks operate and the legitimacy of their behaviours. Unlike other methods where secondary data may be unreliable due to their inconsistency with their intended purpose, the use of secondary data in this research study is considered reliable as the intended purpose was for public purposes.

4.1.2 Quantitative Role

Quantitative data is complementary to qualitative data. Quantiative data includes sustainability indicators such as volumes of green lending, ESG scores, carbon emissions, and corporate social responsibility expenditures. While these quantitative measures are not statistically analyzed, they help in shaping the qualitative research by providing real-world trajectories of sustainable behaviour as well as performance indicators. Thus, providing an additional layer, in terms of empirical evidence to the study.

4.1.3 Policy Relevance

This research design is most applicable to addressing policy-relevant issues, especially within a sector, which is now increasingly determined by policy mandates, such as the sustainable development goals, the TCFD, and India's green taxonomy. The secondary-data mixed-methods design used to compile the study's findings not only permitted an examination of the evolution of policy and level of compliance at the level of banks but also their contributions to sustainable banking in operationalizing this design in the sector on a policy-level; meaning it is not only academically justified but is relevant as a use-value for sustainable banking.

4.2 Research Design

The research design for this study utilized both a descriptive and exploratory research design, to examine the sustainable banking practices of PSBs in India. Given the complexity and multi-faceted nature of financial sustainability - which is influenced by regulatory, economical, environmental and institutional domains - means that a dual research design allows for both systematic mapping of current sustainable finance practices by PSBs, and exploration of the various drivers and barriers through a deeper research design approach.

4.2.1 Descriptive Component

The descriptive dimension examines the ESG strategies and sustainability disclosures of the largest PSBs. The descriptive dimension gathers public documents to evaluate PSB ESG governance, green bond issuance, CSR alignment with SDGs, and governance structures to address sustainability, such as ESG committees, and climate-related risk training. The descriptive dimension captures the current state of sustainable banking in PSBs.

4.2.2 Exploratory Dimension

The exploratory dimension investigates the institutional barriers and gaps in sustainability maturity (for instance, spatial variations in the distribution of green credit, and climate change risk limited integration into credit assessments). The exploratory dimension compares banks such as SBI and BoB (as leaders with respect to ESG integration) against PSB laggards to recognize comparative institutional capacity and regulatory attention capability (e.g., Canadian/OECD, selective versus purposive sampling). A theoretical sampling approach in the exploratory dimension allows themes to emerge, and interpret contextual insights.

4.2.3 Hypotheses

Some key hypothesized relationships include:

- H_{01}: No significant differences in proportion of sustainable strategies between size PSBs.
- H_{02}: No relationship between regulatory compliance and ESG disclosure quality.
- H_{03}: Green finance is not related to size or market capitalization value of PSBs.
- H_{04}: Depth of integration of ESG criteria is not influenced by institutional capacity.

4.3 Nature and Source of Data

The research relied entirely on credible secondary data, incorporating documentation from the regulatory context, regulatory authorities, international organizations, peer-reviewed literature, as well as sustainability disclosures pertaining to banks.

4.3.1 Rationale for Use of Secondary Data

The use of secondary data helps provide efficient access to trustworthy and comparable information, alleviating what can be difficult problems in gathering primary data while leveraging the additional benefit of being able to conduct a more in-depth analysis of institutional sustainability practices.

4.4 Analysis Framework

This research employs a hierarchical analysis framework which involves several layers of qualitative and quantitative content analysis, based on the use of considerably adapted models used for financial evaluation. This mixed-methods framework allows for social learning of the sustainability performance produced by PSBs in India, using measurable financial indicators as well as narrative policy insights.

4.4.1 Qualitative Content Analysis

Employing the Mayring (2014) framework, qualitative content analysis was undertaken amongst the annual reports of PSBs, their ESG disclosures, as well as selected regulatory texts. Using thematic coding to pull out words and phrases relevant to sustainability, many of the initial themes included relevant phrases such as: "green lending", "carbon neutral", and "aligned with the SDGs" - which were then placed within broader themes including Environmental Governance, Stakeholder Engagement, and Institutional Capacity. Using the different themes in conjunction with a broader text of standards including the UN SDGs and TCFD, offered insights about how PSBs are strategically aligning their sustainability contribution with wider global sustainable ambitions.

4.4.2 Quantitative Content Analysis

Quantitative assessment was limited to indicators like ESG scores, Scope 1 and 2 emissions, green loan issuance, and corporate social responsibility expenditure for financial years 2021 to 2024. Analysis of inter-bank trends and performance gaps included comparative tables and basic descriptive statistics derived from the Securities and Exchange Board of India (SEBI) Business Responsibility and Sustainability Reporting (BRSR) guidelines and Global Reporting Initiative (GRI) benchmarks.

4.4.3 CAMEL Framework

An adapted CAMEL framework was used to characterize sustainability-related financial performance. This framework assesses:

- Capital Expansion Adequacy for buffers of green assets,
- low-carbon Asset Quality,
- Management of efficiency focusing on ESG-related governance dynamics,
- Earnings potential generated by sustainable finance instruments,
- Liquidity of transaction capital within the framework of goals on green finance.

4.4.4 Sustainability Performance Indicators

Three indicators were used to assess sustainability performance:

- ESG governance as reported at the board level and staff training,
- POCSR expenditure as indicated in environmental expenses in CSR budgets,
- Inclusion Profiling represents outreach to underserved segments, i.e., rural, women, MSMEs.

These performance indicators facilitate difference assessment and comparison between different banks and identify the leaders and laggards for sustainability banking within Indian public sector banks.

5. Data Analysis and Interpretation

5.1 Overview

This chapter performs a qualitative-dominant mixed-methods analysis of secondary data regarding sustainable banking in the Indian PSBs. Focus on ESG integration within board governance, green finance, and risk management and inclusion is performed from both process-based compliance assessment and assessment of strategic alignment based upon official disclosures and reports provided by PSBs themselves.

5.2 Theme-based analysis of sustainability strategies

Theme-based analysis is a form of qualitative analysis that allows for identification of patterns, and the referencing of sustainability strategies across all operational contexts of each of the PSBs.

5.2.1 ESG Governance Structures

Larger PSBs like SBI and BoB have vastly more formalized ESG governance infrastructure, accountability for the ESG governance is at the Board level. Mid-sized banks like larger PSBs like Punjab National Bank and Canara Bank (also) demonstrate some fragmented and limited ESG integration in governance and strategies.

- ESG governance structures are more formalized in larger PSBs.
- The training offered as ESG training and references to sustainable goals and finance-related KPIs differed across PSBs.
- Few PSBs have targets linked to ESG metrics at the Board level.

5.2.2 Green finance instruments

Green finance as issued green bonds and sourced financing for sustainable finance projects, SBI and BOB are leading processes as follows: SBI, issues noteworthy green bonds - ₹8000 crore = ~1100 million CAD (Bombay stock exchange)

- larger banks issue large scale primarily from the green bonds and can access this market easily, while Mid-sized PSBs can't find adequate infrastructure and have been risk averse to providing sustainable finance.

- Larger PSBs have focused strong commitment to and understanding of green finance.
- Mid-sized PSBs have an inclination or barriers towards market forces or incentives that may allow them to participate in markets and make decisions based on that.

5.2.3 Environmental Risk Management

SBI integrates climate risks into lending and conducts stress testing; BoB has initiated basic environmental assessments. PNB and Canara Bank lack robust frameworks and treat climate risk as reputational.

- Only select PSBs integrate climate risks fully.
- Climate stress testing is rare.
- Disclosure on stranded assets is minimal.

5.3 Quantitative Analysis of ESG Metrics (FY2021–FY2024)

A quantitative review of ESG disclosures from FY2021 to FY2024 reveals clear disparities across public sector banks.

Table 1

Indicator	SBI	BoB	PNB	Canara Bank
Green Loans Disbursed (₹ Cr)	9,200	1,500	850	760
ESG Score (average)	78/100	70/100	66/100	65/100
CSR Expenditure on Environment (%)	28%	22%	18%	19%
Scope 1+2 Emissions (tCO_2e)	350,000	410,000	430,000	440,000

Interpretation: SBI and BoB demonstrate leadership in green finance, ESG performance, and targeted environmental CSR investments. SBI leads in green loan disbursements and ESG scores, with BoB close behind. Mid-sized banks like PNB and Canara Bank lag in ESG performance and green initiatives, reflecting limited investment in low-carbon technologies. Higher emission levels, particularly from mid-sized banks, may indicate inefficient operations or lack of green infrastructure. CSR expenditure among top-tier banks is more aligned with national ecological goals, whereas mid-sized banks tend to have broader, less focused CSR efforts.

5.4 CAMEL Framework – Sustainability Adaptation

Table 2

Parameter	SBI	BoB	PNB	Canara Bank
Capital Adequacy	Integrated climate risks	Partial alignment	Minimal analysis	No stress testing
Asset Quality	Green asset tracking	Sectoral screening	General classification	No green metrics
Management	ESG KPIs, board oversight	ESG committee	Informal ESG actions	Operational awareness
Earnings	Green bond returns published	Project ROI disclosed	Limited ESG-linked earnings	Not disclosed
Liquidity	Long-term green funding	Reliant on multilateral funds	No green instruments	Budget constraints

Conclusion: SBI and BoB exhibit higher maturity in applying sustainability-focused CAMEL parameters. These banks integrate climate risk into capital planning, have structured ESG oversight, and generate earnings from green projects. In contrast, PNB and Canara Bank show limited ESG integration, outdated risk frameworks, and funding limitations. To bridge this gap, regulatory incentives, standardized metrics, capacity building, and stronger multilateral partnerships are essential.

5.5 Regional and Demographic Outreach

Green finance in PSBs is currently skewed towards urban-centric, large-scale infrastructure, neglecting rural and climate-vulnerable regions. Despite their susceptibility to climate change, states like Odisha, Bihar, and Assam receive minimal attention. Branch-level data indicates that green lending is concentrated in metro areas, overlooking decentralized and community-driven green solutions.

Though banks participate in national financial inclusion programs, gender-sensitive and region-specific green financing remains underdeveloped. Some emerging initiatives—such as SBI's clean energy projects and Canara Bank's organic farming support—are encouraging but remain isolated efforts. Financial literacy around green banking is low in underbanked areas, limiting access.

A shift toward inclusive green finance requires PSBs to align with sub-national climate priorities, engage grassroots stakeholders, and co-develop tailored products with NGOs, SHGs, and panchayat institutions. Doing so would enhance equity, deepen sustainability impact, and reinforce the dual role of PSBs as development agents and responsible financial institutions.

5.6 Interpretation and Comparative Insights

5.6.1 Leaders and Laggards

A comparative analysis shows a clear divergence amongst Indian Public Sector Banks (PSBs) in the uptake and implementation of sustainable banking approaches. The State Bank of India (SBI) and the Bank of Baroda (BoB) are outperformers, thanks to their extensive ESG governance arrangement, large green finance books and alignment with international standards such as the UN SDGs and TCFD. These banks demonstrate significant internal capacity, consistent policy innovation and financial resources, and a historical commitment to sustainability objectives.

The Punjab National Bank and Canara Bank demonstrate typical laggard characteristics. They are making some improvements, however, their sustainability interventions are primarily single-focused, reactive actions and compliance driven, rather than strategic actions. Weak ESG governance, limited internal technical capability, and the lack of a cohesive and co-ordinated implementation approach reduce their ability to get real traction on sustainability issues. Concerned about significant ESG governance and not enough focus on internalizing sustainability overall, these banks are struggling to take ownership of sustainability issues.

5.6.2 Barriers to Implementation

Mid-size PSBs have significant systemic and operational constraints. One of the more significant challenges is the lack of an incentive framework. In various jurisdictions like the EU, there is a clear ESG taxonomy and I would argue a clear incentive framework for early adopters making slow but deliberate progress to sustainable banking. In India, it is understandable why many banks are reluctant to invest in ESG actions that don't have a financial return or haven't been mandated by regulation.

Another constraint is operational inertia. The structure of traditional banking business, hierarchy, and obsolete systems slow-crystalize the inertia of integrating ESG. Many banks do not have specialist ESG teams, structured training or exposure to global best practices. They also often fail to cleanly execute their strategies and implement through a fragmented focus.

The last key constraint is lack of data and disclosures. Most banks do not yet have the systems in place to collect, monitor, and report ESG-related data in an effective way. In the absence of a coherent ESG data infrastructure, there is less transparency which translates into lower trust, no benchmarking and little recognition of progress across the sector.

Addressing these constraints will require regulatory revamping, capacity building initiatives, an ESG taxonomy, and judicious investments in ESG data infrastructure and technologies. Leveraging multilateral agency partnerships and policy-relevant incentives is an advantage to creating a more substantial transition process.

5.6.3 Hypotheses Interpretation

All four hypotheses (H_{01}–H_{04}) are rejected indicating significant differences between large and mid-sized PSBs in sustainability practices. Larger banks: SBI and BoB made stronger commitments to and capacity for ESG matured practices: compliance, governance, green financial products, and emphasis on institutional cohesion, in terms of trained staff and integrated strategy with ESG principles. In sum, leadership in sustainable banking is motivated by regulatory compliance and fundamental operational presence; the critical role of bank governance perspective - where there is a determination of bank sustainability potential and competence; and a simplified or clear institutional path with a determined focus on sustainability.

6. Conclusion and discussion

This research was conducted to study sustainable banking practices in Indian Public Sector Banks (PSBs) with a focus on Environmental, Social, and Governance (ESG) practices. A qualitative dominant mixed-methods approach was used, and it was demonstrated that sustainability has changed from a voluntary initiative to a strategic imperative driven by climate change, regulatory change, and the impact of increasing social inequities.

The leading PSBs which have progressed considerably in this area are the State Bank of India (SBI) and Bank of Baroda (BoB) through the introduction ESG committees, issuing green bond, and aligning themselves to global frameworks including the TCFD and UN Principles for Responsible Banking. While mid-sized banks including Punjab National Bank (PNB) and Canara Bank, continue to lag development because of a limited internal capacity, weak ESG governance and a compliance-centric mandate.

The concern raised of the inequitable distribution of green finance, with a concentration of green finance in urban infrastructure and neglect of rural and marginalized communities, provides a new form of "green elitism," and undermines the premise of inclusive development.

The study suggests improvements in regulatory enforcement, capacity building, and the need for sustainability to be embedded within all functions of the bank. PSBs have a significant stretch across the country, and their accountability to stakeholders makes them well positioned to drive India's transformation to sustainability, provided that ESG is viewed as a core tenet of the institution for more than a compliance requirement.

7. Limitations

The study has a number of limitations that affect its depth and can hinder its generalizability. First, because it is based solely upon secondary data the internal perspective and real time implementation perspective does not exist. Second, the study's focus on the specific sector of Indian Public Sector Banks also does not allow for comparative analysis of private or foreign banks. Third, rural-urban differences are noted but not fully explored and there is no further analysis of regional or demographic characteristics. Fourth, there is potential to overlook important nascent policy or technological developments as the temporal reach is FY2024. Fifth, the study cannot make assertions as to actual on-ground implementation of ESG due to absence of internal audits or third-party assessments. Finally, the research did not look at the cultural and behavioural aspects that is important in organisational sustainable transformation.

8. Future Research Directions

Future research should take the extra step to include primary data using interviews, surveys, or focus groups to ascertain internal organizational practice, employee attitudes, and issues with implementation. Conducting comparable studies with public, private, and foreign banks may have advantages for identifying transferable best practices for incorrect time horizon, data quality, and from a resource-based view. Regionally focused case studies, particularly in vulnerable states, will provide even more information about the impacts of local green finance. Research should investigate how fintech solutions, such as blockchain or AI, can provide support for ESG and shape current reporting practices.

Researching the impact of policy change may indicate the degree to which RBI and SEBI guidance on institutional practice, processes and interorganizational change were enacted or changed in local context. Finally, engagement and scholarship across disciplines is likely to strengthen sustainable banking models, much needed for India's development context.

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