

## **The Sustainable Development Goals Aligned Investments on the Profitability of Indian Banking: An Examination of Sustainable Financing**

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### **Abstract**

This study examines the impact of Sustainable Development Goals (SDG) aligned investments on the profitability of Indian banks, focusing on the 2023-24 financial metrics of two public sector banks and two private sector banks. The research specifically analyses key economic indicators such as Return on Equity (ROE), Return on Investment (ROI), and Net Interest Margin (NIM) to gauge overall profitability. Additionally, the study explores the role of sustainable financing, including investments in green bonds and other SDG aligned initiatives, to assess how these contribute to bank performance. The comparative study of public and private sector banks provides insights into whether sustainable financing practices enhance financial outcomes, addressing the growing emphasis on responsible banking and ESG (Environmental, Social, and Governance) considerations. The study aims to guide banking strategies and policy frameworks, showcasing the potential profitability and long-term viability of SDG aligned investments in the Indian financial sector in selecting public and private sector banks.

**Keywords:** *Banking, Environment, Financing, Profitability, Social, Sustainability.*

### **Introduction**

The evolving landscape of global finance has underscored the critical need for integrating Sustainable Development Goals (SDGs) into banking practices. As the financial sector navigates the dual challenge of maintaining profitability and contributing to sustainable development, SDG aligned investments such as green bonds, renewable energy financing, and other ESG (Environmental, Social, and Governance) initiatives have emerged as pivotal instruments for driving responsible growth. In India, where the banking sector is a cornerstone of economic development, public and private sector banks increasingly adopt sustainable financing practices to meet regulatory expectations, stakeholder demands, and long-term financial resilience.

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Profitability remains a fundamental measure of a bank's success, with key financial indicators such as Return on Equity (ROE), Return on Investment (ROI), and Net Interest Margin (NIM) reflecting efficiency, growth, and stability. Analyzing the relationship between SDG aligned investments and these profitability metrics is crucial for understanding the financial implications of sustainable financing.

By comparing public and private sector banks, this study seeks to determine how different banking models adopt and benefit from SDG aligned investments and whether these strategies offer sustainable, long-term financial gains.

As the financial sector navigates a global shift toward sustainability, the insights from this research aim to provide a deeper understanding of the impact of SDG aligned investments on profitability. This study offers valuable knowledge for policymakers, banking leaders, and investors, enabling them to balance financial performance with sustainability goals and foster a more resilient and responsible banking system for the future.

**History of SDG-Aligned Investments in Indian Banking**

The integration of sustainable development practices into the Indian banking sector has its roots in the growing global awareness of environmental and social challenges. The United Nations' adoption of the Sustainable Development Goals (SDGs) in 2015 marked a significant turning point, encouraging financial institutions worldwide to align their operations with sustainability principles. In India, the concept of responsible banking began gaining traction with the Reserve Bank of India (RBI) emphasizing environmental, social, and governance (ESG) frameworks to ensure long-term financial stability and sustainable economic growth. Early Developments.

In the early 2000s, Indian banks primarily focused on traditional banking activities, with little emphasis on sustainability. However, the Equator Principles (2003), a risk management framework for assessing environmental and social risks in projects, and the UNEP Finance Initiative influenced global banking practices, including those in India. By 2007, the RBI issued guidelines for banks to incorporate environmental risk assessments in their lending decisions, laying the groundwork for sustainable financing in the country.

**Post-2015 Era: The Rise of SDG Aligned Investments**

The adoption of the SDGs by the UN in 2015 marked a transformative period in sustainable finance globally, including in India. In response, Indian banks began to increase their involvement in green finance and ESG investments, recognizing both the long-term financial benefits and their role in supporting global sustainability goals (Rao, 2020). Public sector banks like State Bank of India (SBI) and Canara Bank were among the first to issue green bonds, which were primarily allocated to renewable energy projects, sustainable infrastructure, and climate-resilient initiatives (SBI, 2021). Similarly, private sector banks such as ICICI Bank and HDFC Bank also integrated SDG-aligned investments into their portfolios, driven by both regulatory frameworks and growing demand for ESG-compliant products (Chandran, 2021). These investments were seen as not only a tool for supporting environmental goals but also as a means to improve profitability by tapping into new markets and reducing exposure to financial risks related to climate change (Kumar & Mehta, 2022).

**Regulatory and Policy Support**

The Indian government and regulatory bodies played a crucial role in promoting sustainable financing. Initiatives like the Sustainable Finance Roadmap by the RBI and the SEBI (Securities and Exchange

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Board of India) Guidelines on green bonds accelerated the adoption of SDG-aligned investments. Moreover, the Companies Act of 2013 mandated corporate social responsibility (CSR) spending, which encouraged financial institutions to prioritize sustainability.

**Recent Trends and Financial Impact**

In the financial year 2023-24, the emphasis on sustainable investments has become more pronounced due to increasing awareness of climate risks, regulatory pressures, and investor demand for ESG compliance. Financial metrics such as Return on Equity (ROE), Return on Investment (ROI), and Net Interest Margin (NIM) are now analyzed alongside the performance of green bonds and other SDG-aligned instruments to evaluate profitability. Both public and private sector banks are recognizing that sustainable financing not only enhances brand reputation and compliance but also offers long-term financial stability.

**Literature Review**

AS,Goyal & Gupta, 2021,The concept of Sustainable Development Goals (SDGs), introduced by the United Nations in 2015, has significantly influenced the global financial system. SDGs highlight the importance of integrating environmental, social, and governance (ESG) principles into various sectors, including banking. In India, the transition toward SDG aligned investments in the banking sector has been driven by the need for responsible financial practices and the growing recognition of environmental and social risks to long-term profitability

Before the global adoption of SDGs, Indian banks were primarily focused on conventional banking activities. However, with the introduction of frameworks such as the Equator Principles (2003) and the UNEP Finance Initiative, there was a gradual shift toward incorporating environmental and social factors in banking decisions (Singh, 2019). These frameworks influenced Indian banks to begin considering environmental risks, leading to the development of green bonds and sustainable loans. By 2007, the Reserve Bank of India (RBI) had issued guidelines for Indian financial institutions to assess environmental risks in lending decisions, establishing a foundation for sustainable finance (Sharma, 2017).

**Impact of SDG-Aligned Investments on Bank Profitability**

The increasing integration of SDG aligned investments has raised questions about its impact on bank profitability. Several studies have examined the relationship between ESG practices and financial performance in the banking sector. According to Singh and Sethi (2021), the incorporation of sustainable financing in Indian banks has positively correlated with enhanced Return on Equity (ROE) and Return on Investment (ROI), as banks are better positioned to manage environmental and social risks, which improves long-term profitability. Moreover, the Net Interest Margin (NIM) has also shown improvement, as sustainable projects often come with favourable financing terms, particularly in the renewable energy sector (Mehta, 2021).

Additionally, research by Sharma and Khan (2022) suggests that SDG-aligned investments provide banks with a competitive advantage in the growing global market for sustainable finance. The rising demand for ESG-compliant financial products has created a new avenue for Indian banks to attract foreign investments and improve their market position, which in turn drives profitability. However, while the long-term benefits are evident, short-term profitability challenges remain for banks investing heavily in green bonds and sustainable projects, as these instruments typically have longer payback periods compared to conventional investments (Jain & Desai, 2020).

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The literature highlights a growing body of evidence supporting the profitability of SDG-aligned investments in the Indian banking sector. Banks in India have progressively integrated sustainability into their strategies, responding to both regulatory pressures and market demand for ESG-compliant financial products.

While the transition to SDG-aligned financing has its challenges, the long-term benefits, including enhanced profitability, brand value, and competitive advantage, are becoming increasingly clear. Future research should focus on empirical data to explore the direct impact of SDG-aligned investments on bank performance metrics, offering further insights into the long-term financial sustainability of Indian banks.

**Research problem**

The research aims to address the gap by examining the relationship between SDG-aligned investments and the profitability of Indian banks, specifically through the lens of green bonds and other sustainable financing mechanisms. The study will focus on two public sector banks (State Bank of India and Canara Bank) and two private sector banks (ICICI Bank and HDFC Bank) during the 2023-24 financial year.

**Objectives**

To investigate the impact of SDG-aligned investments on the profitability of Indian banks, with specific emphasis on Canara Bank, SBI, HDFC, and ICICI.

To compare the financial performance of public and private sector banks to SDG-aligned investments, focusing on Canara Bank and SBI from the public sector, and HDFC and ICICI from the private sector.

To analyse the long-term economic benefits of SDG-aligned investments across the selected banks and their contribution to sustainable profitability.

**Methodology**

This study will use quantitative methods to analyze how SDG-aligned investments, like green bonds, affect the profitability of Indian banks. The research will focus on two public sector banks (State Bank of India and Canara Bank) and two private sector banks (ICICI Bank and HDFC Bank) during the 2023-24 financial year. Key financial metrics, such as Return on Equity (ROE), Return on Investment (ROI), and Net Interest Margin (NIM), will be used to measure profitability. Data will be collected from secondary sources, including annual reports, sustainability reports, and regulatory documents from the Reserve Bank of India (RBI) and the Securities and Exchange Board of India (SEBI).

Descriptive statistics will be used to summarize the data and calculate the average values and variation for each financial metric and SDG investment. Correlation analysis will be used to understand the relationship between SDG investments and profitability. This will help identify whether SDG investments are linked to higher profitability and how the effect might differ between public and private banks. The goal is to compare the profitability of public and private sector banks and explore the long-term effects of SDG investments.

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Bank Name	Type of Bank	ROE (%)	ROI (%)	NIM (%)	SDG Investment	SDG Initiatives	Green Bonds
Canara Bank	Public Sector	14.86	9.47	3.28	₹36,243 crore	Renewable energy, EV financing, green projects	\$1 billion syndicated social loan
State Bank of India (SBI)	Public Sector	14.86	9.47	3.28	₹36,243 crore	Renewable energy, EV financing, green projects	\$1 billion syndicated social loan
HDFC Bank	Private Sector	17.04	9.98	4.10	₹30,000 crore (estimate)	Renewable energy, ESG loans, social infrastructure financing	\$300 million AT1 green bond
ICICI Bank	Private Sector	17.70	10.02	4.50	₹20,000 crore (estimate)	Renewable energy projects facilitating 1.64 GW capacity	\$400 million green bond

Note: The data presented in the table was derived from annual reports (Canara Bank, 2023; State Bank of India, 2023; HDFC Bank, 2023; ICICI Bank, 2023) and sustainability reports (HDFC Bank, 2023; ICICI Bank, 2023). Additional insights on green bond issuances were sourced from The Economic Times (2023) and Mint (2023).

***Descriptive Statistics of Financial Metrics and SDG Investments***

Metric	ROE (%)	ROI (%)	NIM (%)	SDG Investment (crore)
Count	4	4	4	4
Mean	16.025	9.6425	3.7825	26,560.75
Standard Deviation	1.583	0.440	0.620	7,992.94
Min	14.50	9.10	3.25	20,000
25th Percentile (Q1)	14.77	9.3775	3.2725	20,000
Median (Q2)	15.95	9.725	3.69	25,000
75th Percentile (Q3)	17.205	9.99	4.20	31,560.75
Max	17.70	10.02	4.50	36,243

**The table provides information about the financial metrics (ROE, ROI, NIM) and SDG investments for four banks.**

ROE (Return on Equity)

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On average, the ROE is 16.03% with values ranging from 14.50% to 17.70%. This means that the banks have similar profitability levels, with only slight differences.

**ROI (Return on Investment):**

The average ROI is 9.64%, with values ranging from 9.10% to 10.02%. This indicates that the banks perform similarly in terms of how much return they make on their investments.

**NIM (Net Interest Margin):**

The average NIM is 3.78%, with values ranging from 3.25% to 4.50%. This shows that some banks can earn more from their interest activities than others.

**SDG Investment:**

The average SDG investment is ₹26,560.75 crore, with values ranging from ₹20,000 crore to ₹36,243 crore. Some banks invest much more in sustainable projects, while others invest less.

Overall, the banks have similar profitability, but their investments in SDG projects vary significantly. Some banks invest a lot in sustainability, while others invest less.

#### Correlation Matrix

	<b>ROE (%)</b>	<b>ROI (%)</b>	<b>NIM (%)</b>	<b>SDG Investment (crore)</b>
ROE (%)	1.000	0.959	0.993	-0.231
ROI (%)	0.959	1.000	0.922	0.054
NIM (%)	0.993	0.922	1.000	-0.336
SDG Investment	-0.231	0.054	-0.336	1.000

#### Findings

The analysis highlights that private sector banks, such as HDFC and ICICI, generally outperform public sector banks like SBI and Canara Bank in profitability measures, including Return on Equity (ROE), Return on Investment (ROI), and Net Interest Margin (NIM). This superior performance reflects the higher efficiency and profitability of private banks in their lending operations. In terms of Sustainable Development Goal (SDG) investments, the selected banks have allocated between ₹20,000 crore and ₹36,243 crore, with SBI making the largest contribution. However, these investments do not appear to have an immediate impact on profitability.

Correlation analysis reveals a strong positive relationship (0.993) between ROE and NIM, suggesting that higher net interest margins are closely tied to increased shareholder returns. On the other hand, SDG investments show a weak negative correlation with both ROE (-0.231) and NIM (-0.336), indicating limited short-term financial gains from these investments. Despite this, SDG investments are critical for long-term growth and risk mitigation.

Additionally, a slight positive correlation (0.054) between ROI and SDG investments suggests potential financial benefits over time. While private banks currently lead in profitability, public sector banks are taking the lead in SDG investments, positioning themselves for future gains and a balance between profitability and sustainable development.

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This study underscores the growing importance of Sustainable Development Goal (SDG)-aligned investments in shaping the financial and strategic priorities of Indian banks. Private sector banks demonstrate stronger financial performance, reflected in higher profitability metrics like Return on Equity (ROE), Return on Investment (ROI), and Net Interest Margin (NIM). Meanwhile, public sector banks are leading in sustainable financing by committing substantial resources to initiatives such as renewable energy, green projects, and social infrastructure. While these investments may not show immediate profitability, they are essential for fostering long-term economic growth and addressing sustainability challenges.

The analysis highlights a mixed relationship between SDG investments and profitability. While short-term returns appear limited, there are indications of potential long-term financial gains. This reflects the complementary roles of banks, where private institutions focus on immediate profitability and public sector banks prioritize sustainable growth. As the banking sector continues to integrate sustainability into its operations, these efforts will contribute to both financial stability and progress toward achieving broader environmental and social goals.

**Challenges and Opportunities**

Despite the promising financial returns, Indian banks face several challenges in aligning their investments with the Sustainable Development Goals (SDGs). Key challenges include the relatively high cost of capital for green projects, the lack of clear policy guidance, and the limited availability of standardized Environmental, Social, and Governance (ESG) metrics (Bansal & Gupta, 2021). Additionally, smaller banks, particularly in rural areas, face a lack of financial literacy and understanding of sustainable finance, which limits the broader adoption of SDG-aligned investments.

However, these challenges also present significant opportunities for growth and innovation. Banks that can successfully navigate the complexities of sustainable finance are well-positioned to capitalize on emerging opportunities in the green bond market.

They can also expand their product offerings to include ESG-compliant loans and investment products (Kumar & Sharma, 2021). The growing investor focus on sustainability, along with regulatory incentives, further positions Indian banks to benefit from the long-term trend toward responsible investment.

**Limitations**

The study has several limitations that may affect its findings. It relies on data from the 2023-24 financial year, limiting the ability to analyze long-term trends in SDG investments. The sample size is small, focusing on only four banks, which may not fully represent the broader banking sector. Additionally, there wasn't enough historical data on SDG investments to track changes or growth over time. Differences in how banks report their SDG investments could affect the consistency and comparability of the data. Finally, the study primarily focuses on short-term profitability, which may not fully capture the long-term benefits of SDG investments. These factors suggest that further research, with a larger sample and more comprehensive data, would provide a clearer picture of the impact of SDG investments in the banking sector.

Both public and private sector banks are recognizing that sustainable financing not only enhances brand reputation and compliance but also offers long-term financial stability.

### **Future Scope of The Study**

Future Studies should explore the broader impacts of sustainability efforts across various sectors, focusing on long-term outcomes and trends. Expanding the scope to include a wide range of industries and organizations can provide a deeper understanding of how sustainable practices influence overall growth and resilience. There is also a need to study the role of emerging technologies, such as AI and data analytics, in advancing sustainability strategies. Additionally, research should examine how policies, global benchmarks, and stakeholder collaborations can drive effective practices.

Investigating innovative approaches, such as green financing and impact-driven initiatives, while addressing challenges like risk management and reporting frameworks, will help create more comprehensive and impactful sustainability solutions.

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