Library Progress International
Vol.44 No. 3, Jul-Dec 2024: P. 17000-17005

Print version ISSN 0970 1052
Online version ISSN 2320 317X

Original Article

Available online at www.bpasjournals.com

Impact of Sustainable Financing Initiatives of banking Industry in India and its Role in Bank's Performance: An Empirical Study

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How to cite this article: Debashisa Mohanty, Jyoti Bhoj, Sameer Yadav, Srinivas.D (2024) Impact of Sustainable Financing Initiatives of banking Industry in India and its Role in Bank's Performance: An Empirical Study*Library Progress International,* 44(3), 17000-17005

Abstract
Sustainable financing initiatives in the banking industry involve green projects and responsible businesses promotions. These initiatives aim to support sustainable development, reduce climate-related risks, and enhance long-term financial stability. This empirical study examines the impact of sustainable financing initiatives on the performance of the banking industry in India where banks are aligning with global sustainability standards and national goals. This study explores how these sustainable financing efforts influence various aspects of banks' performance, including profitability, risk management, market positioning, and customer loyalty. The findings reveal that banks actively engaged in sustainable financing benefit from enhanced market valuations, improved risk resilience, and stronger customer relationships. People from the Banking Industry was surveyed to examine the role and impact of Sustainable Financing Initiatives of banking Industry on Bank's Performance and found that Capital Towards Sustainable Projects, Corporate ESG Practices, Market Valuation and Investments, Reputational Capital and Customer Loyalty and Bank's Performance are the factors that shows role and impact of Sustainable Financing Initiatives of banking Industry.
Keywords: Bank, Finance, Performance, Sustainable, Financing Initiatives

Introduction

Sustainable finance efforts in India's banking sector are gaining traction as financial institutions increasingly acknowledge the significance of incorporating "environmental, social, and governance (ESG)" criteria into their practices. These efforts align with India's dedication to global sustainability targets, including the Paris Agreement and the United Nations Sustainable Development Goals (SDGs). Indian banks are providing offerings such as green bonds, sustainability-linked loans, and ESG funds to finance projects in renewable energy, eco-friendly infrastructure, and sustainable agriculture **(Part & Kim, 2020)**. The Reserve Bank of India (RBI) and other regulatory authorities have also been promoting the adoption of these practices among banks through policy frameworks and guidelines. By prioritizing sustainable finance, Indian banks aim not only to drive economic growth and protect the environment but also to reduce risks related to climate change and regulatory compliance, improve their market valuations, and build trust with customers and investors. As the industry progresses, sustainable financing is emerging as a key approach for Indian banks to maintain competitiveness and resilience in a rapidly evolving global economy. With financial, economic, and environmental shifts, the financial services market is undergoing transformation, and a comprehensive integration of ethical principles and values into banking practices is taking place (**Lymperopoulos et al., 2012)**. The banking sector promotes the adoption of eco-friendly strategies, reduces climate risks, and aids recovery by channelling funds into climate-sensitive sectors. Today, environmental and green banking are synonymous with sustainability, leading banks to highlight their corporate social responsibility (CSR) efforts. Banks worldwide are making significant investments in green initiatives to cultivate a sustainable image. Greening the banking sector is also minimizing carbon footprints associated with banking operations, creating mutual benefits for banks, industries, and the economy **(Bihari & Pandey, 2015)**.

The notion of sustainability being normative means that it is based on value judgments and societal norms about what is considered desirable or acceptable for the environment, society, and economy. Rather than being purely objective or scientific, sustainability involves ethical considerations about how resources should be used, how much should be conserved for future generations, and what constitutes a fair distribution of benefits and responsibilities. It reflects the goals and values of societies, such as the desire for long-term ecological health, social equity, and economic stability. Thus, sustainability is shaped by cultural, political, and moral perspectives, making it inherently normative **(Bekuma et al., 2023)**. Banks promote innovation and collaboration to address complex social and environmental challenges. In partnership with other stakeholders such as government agencies, NGOs, and educational institutions, banks can develop new products or services that foster sustainability and generate shared value for all parties involved **(Joaquin, 2023)**. The concept of sustainability has also influenced the financial realm, where financial institutions have begun to consider their potential contributions to achieving the Sustainable Development Goals **(Suh and Kim, 2019)**. Given the role that the financial system occupies in a modern economy, it is reasonable to assert that these institutions are well-positioned to facilitate the transition to a sustainable economy by, for example, ensuring preferential access to financing or conditioning access to funds based on specific, SDG-related criteria. More importantly, the central role of financial institutions enables them to advance the SDGs in all three dimensions: economic, social, and environmental **(Mir & Bhat, 2022)**. These characteristics of the financial system have placed them at the forefront of discussions regarding the transition to a sustainable economy. Financial technology (Fintech) significantly influences improvements in the business landscape **(Giudici et al., 2020)**. Fintech, or financial technology, refers to the integration of technology into offerings by financial services companies to improve their use of financial services **(Macpherson et al., 2021)**. Its connections to energy efficiency are increasingly significant as fintech solutions facilitate investment in sustainable energy projects, optimize resource management, and promote energy-saving practices among consumers and businesses. Fintech platforms can enable easier access to financing for renewable energy projects, such as solar and wind, by connecting investors with startups and companies focused on energy efficiency **(Liu et al., 2022)**. Additionally, smart contracts and blockchain technology can streamline transactions and enhance transparency in energy markets, promoting fair pricing and reducing waste. Moreover, fintech applications can help consumers track their energy consumption, manage bills more effectively, and invest in energy-efficient solutions, such as smart home technologies. By leveraging data analytics, fintech can provide insights that encourage energy-saving behaviors and enhance overall energy efficiency in various sectors. In essence, fintech plays a crucial role in driving the transition toward a more sustainable energy landscape.

Literature Review

Siddik, Yong, and Sharif (2024) indicates that green finance directly and significantly impacts CSR efforts and sustainability performance. Similarly, CSR initiatives have a substantial and direct effect on banks' sustainability performance. Additionally, regarding indirect effects, both CSR initiatives and green finance mediate the relationship between green banking practices (GBP) and sustainability performance (SP), while green finance also indirectly affects the connection between GBP and CSR activities. Interestingly, the results show that CSR initiatives do not indirectly influence the relationship between green finance and sustainability performance. Therefore, the more actively a bank engages in green banking practices, the stronger the impact of green finance and CSR activities on environmental sustainability.

According to the findings of **Subedi and Bhattarai (2024)**, green banking promotes eco-friendly practices and helps reduce the carbon footprint associated with financial operations. This approach includes offering environmentally friendly financial products, such as green loans and bonds. By transitioning to paperless banking, utilizing digital platforms, and implementing energy-efficient practices in branches, banks can significantly minimize resource consumption and waste. Green banking also fosters awareness among customers about the environmental impact of their financial choices, encouraging them to opt for eco-friendly services. Overall, green banking not only enhances the sustainability of financial institutions but also contributes to broader environmental goals by promoting responsible consumption and investment in sustainable projects.

Abuatwan (2023) finds that environmental benefits along with short and long-term sustainability is achieved through integration of green finance into the strategic plans of financial institutions especially in emerging economies. Commercial banks are increasingly implementing eco-friendly measures to promote sustainability and reduce their environmental impact. These measures include providing green financial products such as loans and bonds that support renewable energy, energy-efficient developments, and sustainable agriculture. Banks are also shifting to paperless operations by promoting digital transactions and online banking services, which reduce paper usage and the need for in-person branch visits. Additionally, many banks are adopting green practices in their operations, such as using energy-efficient lighting and HVAC systems, achieving green building certifications, and initiating carbon offset programs.

Shaumya & Arulrajah (2017) explored various methods used to assess the adoption level of eco-banking services among customers in the Sri Lanka region. Green banking positively influences banking practices by promoting sustainable and environmentally responsible financial activities. By incorporating green principles, banks promote eco-friendly products such as green loans, bonds, and sustainability-linked financing, which fund projects in “renewable energy, energy efficiency, and sustainable agriculture”. These initiatives also drive the transition to paperless banking, reducing resource usage and operating expenses while fostering digital transformation. Furthermore, green banking measures enable banks to manage climate-related risks and align with international sustainability standards, enhancing their market position and credibility. This shift not only supports environmental sustainability but also builds customer confidence and loyalty, as consumers increasingly favor institutions committed to sustainability. The findings indicated that green banking positively affects banking practices; however, no significant impact has been observed on customer-related practices.

Objective

1. To know the role and impact of Sustainable Financing Initiatives of banking Industry on Bank’s Performance

Methodology

A sample of 227 individuals from the Banking Industry was surveyed to examine the role and impact of Sustainable Financing Initiatives of banking Industry on Bank’s Performance. This study is based on a survey conducted using a structured questionnaire specifically designed for this research. The primary data was collected using a “random sampling method,” and “Factor Analysis” was employed to derive the results.

Findings

The table below presents the general details of the respondents. Out of a total of 227 respondents, 56.8% are male and 43.2% are female. Additionally, 30.4% are below 38 years of age, 42.7% are between 38 and 48 years old, and the remaining 26.9% are above 48 years of age. In terms of job roles, 18.1% work as Branch Manager, 22.9% are Financial Analysts, 17.2% are Bank auditor, 25.1% are Investment banking associate, and 16.7% hold other positions within the banking industry.

“Table 1 Demographic details”

“Variable”	“Respondents”	“Percentage”
Gender		
Male	129	56.8
Female	98	43.2
Total	**227**	**100**
Age		
Below 38 yrs	69	30.4
38-48 yrs	97	42.7
Above 48 yrs	61	26.9
Total	**227**	**100**
Designation		
Branch manager	41	18.1
Financial analyst	52	22.9
Bank auditor	39	17.2
Investment banking associate	57	25.1
Others	38	16.7
Total	**227**	**100**

Table 2 “KMO and Bartlett's Test”

“Kaiser-Meyer-Olkin Measure of Sampling Adequacy”		.869
“Bartlett's Test of Sphericity”	“Approx. Chi-Square”	4886.855
	“df”	190
	“Sig.”	.000

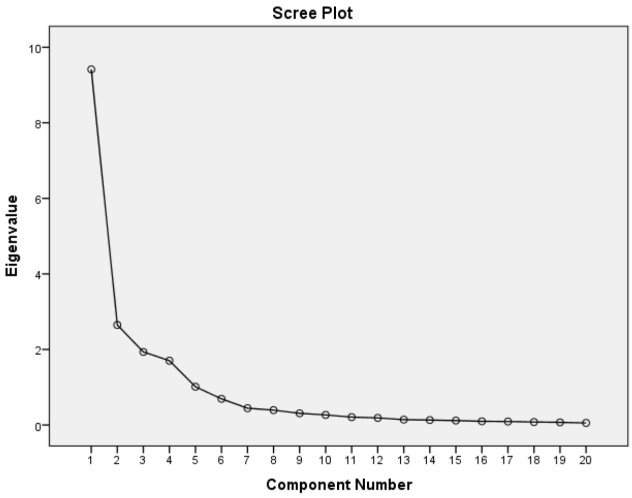
KMO value in table 2 is 0.869 and the “Barlett’s Test of Sphericity” is significant.

“Table 3 Total Variance Explained”

“Component”	“Initial Eigen values”			“Rotation Sums of Squared Loadings”		
	“Total”	“% of Variance”	“Cumulative %”	“Total”	“% of Variance”	“Cumulative %”

1		47.073	47.073	3.562	17.808	17.808
2	2.650	13.248	60.321	3.546	17.730	35.538
3	1.934	9.670	69.991	3.420	17.100	52.638
4	1.702	8.512	78.503	3.399	16.995	69.633
5	1.013	5.065	83.569	2.787	13.936	83.569
6	.692	3.462	87.031			
7	.444	2.221	89.252			
8	.394	1.968	91.220			
9	.309	1.543	92.763			
10	.266	1.332	94.095			
11	.209	1.043	95.138			
12	.188	.942	96.081			
13	.141	.706	96.787			
14	.131	.656	97.443			
15	.117	.586	98.029			
16	.098	.492	98.520			
17	.092	.462	98.982			
18	.079	.395	99.377			
19	.070	.352	99.729			
20	.054	.271	100.000			

"Principal component analysis" shows 20 variables from 5 Factors. The factors explained the variance of 17.808%, 17.730%, 17.100%, 16.995% and 13.936% respectively. The total variance explained is 83.569%.



"Figure 1 Scree Plot"

"Table 4 Rotated Component Matrix"

"S. No."	"Statements"	"Factor Loading"	"Factor Reliability"
	Capital Towards Sustainable Projects		**.930**
1	Allocate funds to projects that support environmental	.884	
2	Support renewable energy, green infrastructure, sustainable agriculture, and clean technology	.871	
3	Facilitate the projects having positive impact on the environment and communities	.869	
4	Promote "green bonds, sustainability-linked loans, and other ESG-focused" financial products	.797	

	Corporate ESG Practices		**.946**
5	Offer favourable financial terms to companies with strong ESG (Environmental, Social, and Governance) performance	.883	
6	Encourage firms to adopt sustainable and socially responsible practices	.869	
7	Encourage businesses to align their operations with sustainability goals	.866	
8	Promote reducing carbon emissions, improving labour conditions, and enhancing governance standards	.850	
	Market Valuation and Investments		**.935**
9	Banks attract investors, green funds, and other financial institutions prioritizing ESG-focused investments	.879	
10	Sustainable financing initiatives enhance a bank's market valuation	.856	
11	Align with investor demand for sustainable assets	.835	
12	Sustainable financing initiatives contribute to long-term profitability and growth	.827	
	Reputational Capital and Customer Loyalty		**.926**
13	Sustainable financing initiatives strengthen bank's brand and customer loyalty	.877	
14	Attracts individual clients that prefer institutions committed to positive environmental and social impacts	.864	
15	Banks minimize the risk of being associated with controversial projects	.843	
16	Clients are more likely to remain loyal and engage in multiple services	.819	
	Bank's Performance		**.915**
17	Bank shows enhanced Profitability and Revenue Growth	.804	
18	Reduced Risk Exposure	.746	
19	Improved Market Valuation and Investor Confidence	.723	
20	Strengthened Customer Relationships and Loyalty	.688	

Table 4 shows the factors that shows different role and impact of Sustainable Financing Initiatives of banking Industry on Bank's Performance. Factor "Capital Towards Sustainable Projects" includes the variables like Allocate funds to projects that support environmental, support renewable energy, green infrastructure, sustainable agriculture, and clean technology, Facilitate the projects having positive impact on the environment and communities and promote "green bonds, sustainability-linked loans, and other ESG-focused" financial products. Factor "Corporate ESG Practices" includes the variables like Offer favourable financial terms to companies with strong ESG (Environmental, Social, and Governance) performance, encourage firms to adopt sustainable and socially responsible practices, encourage businesses to align their operations with sustainability goals and Promote reducing carbon emissions, improving labour conditions, and enhancing governance standards. Factor "Market Valuation and Investments" includes the variables like Banks attract investors, green funds, and other financial institutions prioritizing ESG-focused investments, Sustainable financing initiatives enhance a bank's market valuation, align with investor demand for sustainable assets and Sustainable financing initiatives contribute to long-term profitability and growth. Factor "Reputational Capital and Customer Loyalty" includes the variables like Sustainable financing initiatives strengthen bank's brand and customer loyalty, attracts individual clients that prefer institutions committed to positive environmental and social impacts, Banks minimize the risk of being associated with controversial projects and Clients are more likely to remain loyal and engage in multiple services. Factor "Bank's Performance" includes the factor Bank shows enhanced Profitability and Revenue Growth, Reduced Risk Exposure, Improved Market Valuation and Investor Confidence and Strengthened Customer Relationships and Loyalty.

"Table 5 Reliability Statistics"

"Cronbach's Alpha"	"N of Items"
.939	20

The value of "Cronbach's Alpha" should be more than 0.07. Total reliability is 0.939 for 5 constructs including twenty items, hence it is sufficient.

Conclusion

The study concludes that sustainable financing initiatives play a crucial role in shaping the performance of the banking industry in India like enhanced profitability, reduced risk exposure, and improved market valuations. Sustainable financial products, such as green bonds and ESG-linked loans, not only attract a growing customer base but also strengthen customer loyalty and trust. The study highlights that while sustainable financing aligns Indian banks with global standards and regulatory requirements, challenges like limited awareness, regulatory complexities, and the need for innovation remain. Overall, sustainable financing is a vital strategy for Indian banks to remain competitive, resilient, and aligned with India's long-term sustainability goals. These findings underscore the importance of continuous efforts in policy development, customer education, and product innovation to maximize the impact of sustainable finance on the banking sector's growth and stability.

The study was conducted to know the role and impact of Sustainable Financing Initiatives of banking Industry on Bank's Performance and found that Capital Towards Sustainable Projects, Corporate ESG Practices, Market Valuation and Investments, Reputational Capital and Customer Loyalty and Bank's Performance are the factors that shows role and impact of Sustainable Financing Initiatives of banking Industry.

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