

Impact of ESG Practices on Banks' Performance in India

Manjunath*

Research Scholar, Department of Commerce, Central University of Karnataka-Kalaburagi-585367.

Sujatha Susanna Kumari D

Associate Professor, Department of Commerce, Central University of Karnataka -Kalaburagi-585367.

*Corresponding Author Email: 21dpc02@cnk.ac.in

Abstract: *The study examines the impact of environmental, social, and governance practices on the performance of banking institutions listed on the NSE. The ESG score was collected for 2021 and 2022 from CRISIL, and Financial Data was collected from Prowess IQ. ROA, ROE, and Tobin's Q were used as proxies for the firm's operational, financial, and market performance. Tobin's Q, ROA, and ROE correlate highly with ESG, environment, social, and governance scores. Using fixed-effect panel regression, it has been observed that the aggregate ESG scores have been found to have a statistically significant positive impact on ROA but a statistically insignificant negative impact on ROE and Tobin's Q. However, if measured individually, the governance score and Capital Adequacy Ratio positively affect ROA, demonstrating that strengthening the governance and capital adequacy can improve a bank's operational performance. The study concludes that India's banking sector is far from adopting sustainable strategies to boost financial and market performance. The findings and implications are important to investors, banking executives, and policymakers.*

Keywords: Sustainability, Financial Performance, ESG Practices, Banking Sector.

1. INTRODUCTION

Business corporations worldwide are shifting from short-term profit maximisation to long-term sustainability goals, including environmental, social, and governance (ESG) goals. As the world becomes more conscious of the interconnected nature of environmental degradation, social injustice, and corporate mismanagement, the importance of ESG factors in business strategy has received widespread attention (Linnenluecke, 2022). There is a growing realisation among companies operating in India regarding the crucial importance of integrating their plans and operations with Environmental, Social, and Governance (ESG) principles (Chelawat & Trivedi, 2016). India also pledged net-zero emissions by 2070. India has committed to two main targets under the Paris Agreement. India aims to achieve a reduction in emissions intensity of 33-35% of GDP below the levels of 2005 by the year 2030. Additionally, India has formulated a strategic objective to derive 40% of its energy production from non-fossil fuel sources (Shrivastava, 2022).

The banking and financial services sectors exhibit a comparatively slower reaction to sustainable changes than other sectors (Prokopowicz, 2020). Banks work in an interdependent manner and do not operate in isolation. Hence, the performance of banks is bound to be impacted by any influence on the overall economy, be it through direct or indirect exposure to environmental, social, and governance (ESG) considerations (Szegedi & Sahya Khan, 2021). Banks being "too big to fail" is widely accepted, but after the 2008 financial crisis, some banks survived and grew, while others while others succumbed to insolvency. Banks that proved resilient and expanded were those that adhered to sustainable practices and prioritized considerations about social, environmental, and governance aspects (Capella, 2002). A meta-analysis of over 2000 publications supports investment in ESG aspects (Friede et al., 2015). However, further research is needed to understand how ESG performance fits a bank's strategy framework (Huang, 2019).

In light of the increased significance placed on environmental, social, and governance (ESG) considerations and the growing importance of transparency, accountability, and ethical behavior within the Indian banking business, it becomes imperative to comprehend the relationship between ESG ratings and financial performance. The study sheds light on the relationship between ESG practices and financial outcomes in a fast-rising economy driven by the growing importance of ESG elements in the banking sector. The panel regression model provides a more nuanced understanding of ESG's impact on financial, operational, and market performance. This study will advance academic knowledge and benefit Indian lawmakers, investors, and corporate executives.

The remainder of the paper is structured as follows. Section 2 provides a theoretical framework and hypothesis development, Section 3 deals with the variables and methodology description, Section 4 involves descriptive

statistics, and Section 5 summarizes the results and offers insights about the findings. Finally, section 6 concludes with some remarks and policy implications.

2. LITERATURE REVIEW

Multiple studies show the impact of ESG on corporate value and profitability. (Friede et al., 2015) Examined the relationship between ESG norms and business profitability in the 1970s. According to a review of 2200 articles, investing in ESG is justified, and 90% of studies show a positive relationship between ESG and corporate financial performance. A meta-analysis of 132 papers published in credible academic journals found that 78% saw a positive association between sustainability and corporate financial performance (Alshehhi et al., 2018). A recent meta-analysis by from Rockefeller Asset Management and NYU Stern Centre for Sustainable Business examined over 1000 papers from 2015 to 2020 on the relationship between ESG and financial performance. The analysis indicated a positive relationship between ESG and financial success in 58% of studies, a negative link in 8%, no relationship in 13%, and mixed results in 21%.

Even though there are many positive examples of the association between ESG and FP, academics frequently argue that the results are confusing and inconclusive, even though there are numerous positive examples of the relationship (Hornuf & Yüksel, 2023). Using 1042 emerging country enterprises from 2010-2019 (Muhammad Naeem et al., 2021) studied the impact of ESG on financial performance. It indicated that individual and combined ESG scores positively correlate with business value (Tobin's Q) and profitability (ROA). A study of 1038 public firms from 22 European countries from 2018 to 2019 (De Lucia et al., 2020) found a positive relationship between ESG factors and financial performance (ROE and ROA). (Bhaskaran et al., 2020) Examine the influence of ESG on the financial performance of 4887 enterprises from 2014-2018, focusing on firm value (Tobin's Q) and operational performance (ROE and ROA). Research suggests that companies excelling in environmental, governance, and social performance will likely generate more market value. Some researchers argue that ESG initiatives have a negative impact on the financial market performance of banking companies (Buallay, 2020). Several studies conclude that due to capital reallocation from shareholders to other stakeholders, ESG activities affect economic performance and market value (Garcia & Orsato, 2020). Based on the literature study, excellent ESG scores may boost firm value and profitability due to investor interest and public perception. Therefore, the following hypotheses are proposed:

H1: ESG initiatives positively affect the Banking sector's operational performance (ROA).

H2: ESG initiatives positively affect the Banking sector's financial performance (ROE).

H3: ESG initiatives positively affect the Banking sector's Market performance (Tobin's Q).

In numerous academic studies and market assessments, ESG has been linked to increased corporate value and profitability. There are also many negative and mixed results in past studies. The paper will contribute to the debate using hypotheses and a large, recent, and thorough dataset.

3. RESEARCH METHODOLOGY

The study relied upon Credit Rating Information Services

of India Limited (CRISIL) for ESG scores. Twenty-four listed banks were selected based on the availability of ESG scores for 2021 and 2022, resulting in 48 observations. The dependent and firm-specific control variables were computed using the relevant data obtained from the Prowess IQ database for the specified two-year period, as indicated in Table 1.

The fixed-effect panel regression model was employed to assess the impact of sustainability reporting on Banks' performance. The model is presented as

$$Perf_{it} = \alpha_1 + \beta_1 EnvSc_{it} + \beta_2 SocSc_{it} + \beta_3 GovSc_{it} + \beta_4 ESG_{it} + \beta_5 Value_{it} + \beta_6 CAR_{it} + \epsilon_{it}$$

3.1 Sample and Data Sources

The study uses a sample of 24 listed banks in India from 2021 to 2022 with 48 observations. The ESG score was derived from publicly available sources provided by CRISIL, and the financial data was collected from Prowess IQ.

Table 1. The study variables

Label	Variable	Measurements
Dependant Variables		
ROA	Return on Assets	Measure of evaluating a firm's operational performance. Computed by dividing net income by total assets (Karelna et al., 2022).
ROE	Return on Equity	Measure of the company's financial performance and shareholder equity utilization. Derived by dividing net income by shareholder equity (Karelna et al., 2022).
TobQ	Tobin's Q Ratio	The measure of a firm's market performance. The current liabilities plus share capital market value ratio to the firm's total assets is Tobin's Q (Chelawat & Trivedi, 2016).
Independent Variables		
ESGSc	Environment, Social, and Governance Score.	ESG refers to a corporate decision-making framework that reviews and assesses a firm's environmental, social, and corporate governance performance. CRISIL index that combines Environment, Social, and Governance Scores (Agarwal et al., 2023; Buallay et al., 2020; 3).
EnvSc	Environment Score	CRISIL index that represents the firm's environmental policies and governance, and carbon footprint estimates greenhouse gas emissions, including direct (Scope 1) and indirect (Scope 2 and 3) emissions (Agarwal et al., 2023; Buallay et al., 2020).
SocSc	Social Score	CRISIL index involves the firm disclosing labour practices, community participation, human rights, social impact programs, and employee well-being (Agarwal et al., 2023; Buallay et al., 2020).
GovSc	Governance Score	CRISIL index that represents the firm's corporate governance code (Agarwal et al., 2023; Buallay et al., 2020).
Firm-Specific Control Variables		
Size	Total Assets	Proxy for firm size. The size of a company's operations and financial resources. Calculated by the natural logarithm of Total Assets (Jamal et al., 2021).
Value	Market Capitalisation	A company's market value is determined by its capitalisation, which is the product of its outstanding shares and current market price. Calculated by the natural logarithm of Market Capitalisation (Urban et al., 2022).
CAR	Capital Adequacy Ratio	The most common indicator of regulatory capital compliance is the ability of a bank to absorb losses using particular equity components. Calculated by dividing Total own funds by total risk-weighted assets (Menicucci & Paolucci, 2023).

4. ANALYSIS AND DISCUSSION

This section describes study variables using descriptive statistics. It starts with the variables' mean, maximum, minimum, and standard deviation. Skewness and kurtosis are calculated and analysed to determine if the data are heavy-tailed or light-tailed compared to a normal distribution. The table shows that asymmetry and kurtosis between -2 and +2 are acceptable for a normal univariate distribution (George, 2011). The distribution is right-skewed because the median is lower than the mean.

In the descriptive study, the mean of governance disclosure was highest, followed by social disclosure, and environment disclosure was lowest across banks. Many banks encouraged disclosing corporate governance policies and roles in their reports, improving performance.

Table 2. Descriptive Statistics

Variables	Obs	Mean	Median	Std. Dev.	Min	Max	Skew.	Kurt.
ROA	48	0.484	0.39	.929	-2.83	2.42	-0.681	5.172
ROE	48	5.485	5.22	8.76	-22.12	28.23	-0.509	4.45
TobQ	48	0.374	0.17	0.402	0.046	1.439	1.147	2.958
EnvSc	48	59.771	58.332	6.566	48	75	0.239	2.775
SocSc	48	64.583	64.50	3.924	56	77	0.404	3.982
GovSc	48	66.813	65.50	9.337	48	82	0.026	1.753
ESGSc	48	63.875	63.82	5.723	55	77	0.314	2.132
Size	48	12.836	12.74	1.227	10.07	15.425	-0.121	2.592
Value	48	10.613	10.36	1.371	7.847	13.621	0.665	2.775
CAR	48	17.138	16.5	3.374	11.1	26.4	0.823	3.197

The Pearson Correlation matrix indicates that ESGSc exhibits a statistically significant positive correlation with all performance indicators at the 1% level. ROA correlates with governance score at the 1% level of significance. At 5% significance, the ROA correlates with the social and environmental score. Nevertheless, a significant positive relationship exists at a 5 percent significance level between the Return on Equity (ROE) and Tobin's Q with the governance score.

Table 3. Pearson Correlation Matrix

	ROA	ROE	TobQ	EnvSc	SocSc	GovSc	ESGSc	CAR	Size	Value
ROA	1									
ROE	0.472***	1								
TobQ	0.431**	0.345*	1							
EnvSc	0.350*	0.257	0.296*	1						
SocSc	0.315*	0.172	0.0612	-0.0418	1					
GovSc	0.461***	0.414**	0.405**	0.528***	0.00363	1				
ESGSc	0.540***	0.484***	0.471***	0.736***	0.268	0.868***	1			
CAR	0.448**	0.216	0.807***	0.573***	0.0279	0.460**	0.579***	1		
Size	0.138	0.0818	-0.471***	-0.0911	0.429**	0.0637	0.0425	-0.460***	1	
Value	0.527***	0.380**	0.17	0.422**	0.363*	0.593***	0.630***	0.167	0.682***	1

Notes: The *, **, and *** represent significant levels at 1%, 5%, and 10%, respectively. ROA, Return on Assets; ROE, Return on Equity; TobQ, Tobin's Q; EnvSc, Environment Score; SocSc, Social Score; GovSc, Governance Score; CAR, Capital Adequacy Ratio; Size, Natural log of Total Assets; Value, Natural log of Market Capitalization.

Table 4. Regression Results

	ROA		ROE		TobQ Model	
	Coef.	t-statistics	Coef.	t-statistics	Coef.	t-statistics
Independent variables						
EnvSc	0.032	0.38 (0.709)	0.111	0.08 (0.938)	0.005	1.16 (0.264)
SocSc	0.145	1.76 (0.097)	0.748	0.54 (0.594)	0.004	1 (0.333)
GovSc	0.128	2.17* (0.045)	0.635	0.65 (0.526)	0.001	0.56 (0.586)
ESGSc	0.253	2.26* (0.037)	-0.769	-0.41 (0.685)	-0.009	-1.34 (0.199)
Bank-specific variables						
Size	0.354	0.39 (0.703)	16.286	1.07 (0.299)	-0.254	-4.6*** (0.000)
Value	0.296	0.58 (0.569)	19.085	2.25 (-2.37)	0.175	5.68*** (0.000)
CAR	0.231	3.61* (0.002)	-2.529	-2.37* (0.03)	-0.001	-0.31 (0.762)
Constant	-14.882	1.03 (0.318)	-411.068	-1.71 (0.106)	1.565	1.79 (0.092)
F ²	5.25		2.97		8.78	
Sig	0.002		0.003		0.000	
R ²	0.309		0.545		0.647	
Adjusted R ²	0.306		0.543		0.647	
Hausman Test(χ^2)	86.37		22.18		15.58	
p-value (χ^2)	0.000		0.002		0.000	

Notes: The *, **, and *** represent significant levels at 1%, 5%, and 10%, respectively.

Hausman test evaluates estimate consistency, especially in endogenous models. A lower Hausman test p-value shows the fixed-effects model is better. The findings indicate that the models for Return on Assets (ROA), Return on Equity (ROE), and Total Quality (TQ) exhibit substantial statistical significance and possess strong explanatory capabilities, as evidenced by the F-test's p-value being below the 5 percent threshold. As shown in the table, the slope coefficient of ESG for the variables ROA, ROE, and Tob Q demonstrates a statistically significant positive relationship between ESG activities and ROA. This conclusion is supported by the coefficient value and the p-value, below the conventional threshold of 5 percent (0.037). Therefore, based on these results, the H1 is accepted; the ESG activities positively affect the banking sector's operational performance. These findings are consistent with a study that found ESG criteria significantly affect bank profitability and potentially boost productivity (Buallay, 2020; Shrivastava, 2022). Furthermore, the analysis indicates no statistically significant relationship between ESG activities and the return on equity (ROE) with a p-value of 0.685 and Tobin's Q with a p-value of 0.199. Therefore, H2 and H3 are rejected. There is no relationship between ESG initiatives and the banking industry's financial performance or market performance. Conversely, the environmental, social, and governance initiative scores exhibit negligible positive impacts on ROA, ROE, and Tobin's Q.

Lastly, for control variables, the following results have shown total assets are found to be negatively significant with Tobin's Q and positively insignificant with ROA and ROE, indicating that an increase in total assets is associated with a decrease in Tobin's Q, size of total assets does not significantly impact Return on Assets and Return on Equity. Firm value is positively significant with Tobin's Q, positively insignificant with ROA, and negatively little with ROE, indicating that investor's view banks with higher market capitalization as having better growth and investment chances. It supports the assumption that market capitalization indicates investor confidence in the bank's future. The study found a positive and significant association between the Capital Adequacy Ratio (CAR) and Return on Assets (ROA), a negative and significant relationship with ROE, and a non-significant relationship with Tobin's Q, indicating that banks with more robust capital adequacy tend to generate more profits from their assets and the level of capital adequacy in banks does not have a statistically significant effect on their market valuation.

5. CONCLUSION

The study examines the relationship between ESG practices and the financial performance of NSE-listed banking institutions. The study results showed that ESG negatively affects the bank's market and financial performance. ESG initiatives decrease financial performance (ROE) and market performance (Tobin's Q) but boost operating performance (ROA) for sampled banking institutions. It is also found that the overall ESG scores have a positive relationship with ROA, suggesting that responsible and sustainable environmental, social, and governance activities can have an advantageous effect on a company's bottom line. Governance score and Capital Adequacy ratio have a significant relationship with ROA, suggesting that improving governance and capital adequacy can improve a

bank's operational performance.

The findings are important to academics and banking executives. Academically, the research improves prior studies on the link between ESG and Financial Performance in the banking industry. It suggests India's banking sector is still far from adopting sustainable policies to improve financial and market performance. Thus, the study findings may help banking executives allocate and use business resources better. Future research should extend the study's period to broaden the analysis and provide a more comprehensive overview.

REFERENCES

- Agarwal, B., Gautam, R. S., Jain, P., Rastogi, S., Bhimavarapu, V. M., & Singh, S. (2023). Impact of Environmental, Social, and Governance Activities on the Financial Performance of Indian Health Care Sector Firms: Using Competition as a Moderator. *Journal of Risk and Financial Management*, 16(2). <https://doi.org/10.3390/jrfm16020109>
- Alshehhi, A., Nobanee, H., & Khare, N. (2018). The impact of sustainability practices on corporate financial performance: Literature trends and future research potential. *Sustainability (Switzerland)*, 10(2). <https://doi.org/10.3390/su10020494>
- Buallay, A. (2020). Sustainability reporting and firm's performance: Comparative study between manufacturing and banking sectors. *International Journal of Productivity and Performance Management*, 69(3), 431–445. <https://doi.org/10.1108/IJPPM-10-2018-0371>
- Capella, A. P. (2002). Sustainable Finance: An assessment of environmental risks and opportunities in Latin America. In *International Institute for Industrial Environmental Economics* (Issue November).
- Chelawat, H., & Trivedi, I. V. (2016). The business value of ESG performance: the Indian context. *Asian Journal of Business Ethics*, 5(1–2), 195–210. <https://doi.org/10.1007/s13520-016-0064-4>
- De Lucia, C., Pazienza, P., & Bartlett, M. (2020). Does good ESG lead to better financial performances by firms? Machine learning and logistic regression models of public enterprises in Europe. *Sustainability (Switzerland)*, 12(13), 1–26. <https://doi.org/10.3390/su12135317>
- Friede, G., Busch, T., & Bassen, A. (2015). ESG and financial performance: aggregated evidence from more than 2000 empirical studies. *Journal of Sustainable Finance and Investment*, 5(4), 210–233. <https://doi.org/10.1080/20430795.2015.1118917>
- Garcia, A. S., & Orsato, R. J. (2020). Testing the institutional difference hypothesis: A study about environmental, social, governance, and financial performance. *Business Strategy and the Environment*, 29(8), 3261–3272. <https://doi.org/10.1002/bse.2570>
- Karelina, A., Pakpahan, E., Toni, N., & Br. Tarigan, A. E. (2022). Effect of Current Ratio, Return on Assets, and Debt to Equity Ratio on Profit Growth in Listed Banking Companies on the Indonesia Stock Exchange Year 2019-2021. *International Journal of Social Science Research and Review*, 5(11), 63–72. <https://doi.org/10.47814/ijssrr.v6i11.617>
- Linnenluecke, M. K. (2022). Environmental, social, and governance (ESG) performance in the context of multinational business research. *Multinational Business Review*, 30(1), 1–16. <https://doi.org/10.1108/MBR-11-2021-0148>
- Menicucci, E., & Paolucci, G. (2023). ESG dimensions and bank performance: an empirical investigation in Italy. *Corporate Governance (Bingley)*, 23(3), 563–586. <https://doi.org/10.1108/CG-03-2022-0094>
- Muhammad Naeem, st, Hamid Ullah, nd, & Shahid Jan, rd. (2021). The Impact of ESG Practices on Firm Performance: Evidence From Emerging Countries. *Indian Journal of Economics and Business*, 20(1), 731–750. <http://www.ashwinanokha.com/IJEB.php>
- Prokopowicz, D. (2020). Implementation of the Principles of Sustainable Economic Development As a Key Element of the Pro-Ecological Transformation of the Economy Towards a Green Economy and Circular Economy. In *International Journal of New Economics and Social Sciences* (Vol. 11, Issue 1). <https://doi.org/10.5604/01.3001.0014.3558>
- ‘urban, R. A., Mihaie, D. M., & ichindelean, M. (2022). Environment, Social, and Governance Score and Value Added Impacts on Market Capitalisation: A Sectoral Based Approach. *Sustainability (Switzerland)*, 14(4). <https://doi.org/10.3390/su14042069>
- Shrivastava, K. (2022). Indian Banks adopting to ESG Practices/ : An exploratory study based on D-SIBs. *The Journal of Indian Institute of Banking & Finance*, 12–18.