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Exploring the ESG Performance's Influence on Sustainable Firm Value: What NSE 100 Listed Firms Indicate?

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Abstract

The paper explores the impact of environmental, social and governance performance of NSE-listed top 100 corporations on value of the firm. The study has employed a longitudinal study with a timeframe from 2009 to 2022. To measure ESG performance, the combined ESG scores have been fetched from Bloomberg's terminal. The study incorporates regression analysis on the panel data to measure the intensity of the relationship. The study has reported variation in the results for accounting (operating and financial performance) metrics and market-based measures. The financial and operational performance indicated a negative influence of ESG, whereas the market-based measure showed a positive impact of ESG. The study lays down the practical and social implications of the study, along with future research avenues, by addressing the shortcomings of the study.

Keywords: ESG Performance, Firm Value, NIFTY, Agency theory, Stakeholders' theory, Sustainable Development Goals(SDG's)

Introduction

Environmental, Social and Governance, known as ESG, refers to the performance of companies on non-financial parameters, the traditional metrics focused largely on the financial performance only, such as turnover, net profits and market share "(Abdi et al., 2022; Agrawal, 2024). In contrast, ESG performance considers the holistic performance of the firms, including environmental impact, carbon emission, labour practices, board governance, etc. The phenomenon gained prominence decades ago, when, in 2006, the UN officially launched 'Principles on Responsible Investment', which encourages investors to consider ESG factors when making significant business decisions. Increasingly, companies realised the cruciality of focusing on ESG factors throughout their business operations —'(Agrawal et al., 2024; Kumar, 2022). The developed economies were at the forefront of integrating ESG factors into their core business operations. As an outcome, the figure of PRI signatories has upsurged to 5,300 from just 63 signatories in the last two decades, representing more than 139.6 USD AUM (Assets under Management).

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Aligning with developed economies, India is also walking down the same lane and successfully implemented ESG integration within the financial reporting of the companies. The SEBI (Securities and Exchange Board of India), the statutory body that monitors the capital market, protects investors' rights and acts as a watchdog to ensure transparency throughout the investment process (Baek & Lee, 2024). SEBI has launched the BRSR (Business Responsibility and Sustainability Report) in May 2021. Initially, the BRSR was

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implemented as a voluntary norm. From FY 2022-23, it became mandatory for the top 1,000 companies on a market capitalisation basis –(Kumar & Prakash, 2019).

Prior studies have explored the impact of ESG factors on various aspects of financial performance, not only ESG factors.––(Albarrak et al., 2019; Alodat et al., 2022; Ben Amar & Chakroun, 2018) but also on ESG ratings, disclosure and practices –(Chen & Li, 2024; Dallocchio et al., 2024). The relation has been explored individually on the E, S and G factors. We have a plethora of studies examining the relationships between ESG performance and firm outcomes, and very few have focused on the impact of firm value to investigate whether ESG shows a promising multiplier effect on firm value. This will motivate the companies to integrate the ESG principles into their business operations. Some past studies have recorded the positive relationship between ESG performance and firm value –'(Fatemi et al., 2018; Wong et al., 2021; Zhao et al., 2018), while some have argued and confirmed the inverse relationship –(Atan et al., 2018; Duque-Grisales & Aguilera-Caracuel, 2021; Sassen et al., 2016). Some authors have reiterated that the time period and industrial characteristics play a great role in the intensity of the relationship (Iazzolino et al., 2023; Singh & Singh, 2025). Studies have reported an insignificant or negligible relationship between ESG performance and firm value.

In this paper, we explore the impact of ESG performance on firm value, employing a sample of the top 100 listed companies that proactively engage in ESG activities, using the period from 2009 to 2022. First, the environmental, social and governance performance indicators have been accessed from the Bloomberg Database. Next, a panel data set of the top 100 companies, based on market capitalisation, listed on the NSE (National Stock Exchange) from 2009 to 2022, with 724 observations, was used to examine the impact of ESG performance and firm value. We used Tobin's Q, ROA (Return on Asset) and ROE (Return on Equity) as a proxy variable to measure the firm value.

Literature Review and Hypothesis

The literature on corporate finance is going through a major transformation as companies are now discussing sustainable corporate finance that measures the performance of a company on financial and non- financial metrics '(Zhao et al., 2018; Awasthi et al., 2025). A glance at the prior studies has presented mixed opinions about the relationship between ESG performance and firm value. However, the literature shows a mixed approach: some align with agency theory and assert a negative relationship between firm value and ESG performance, while others align with stakeholder theory and confirm a positive relationship between the two.

The stakeholder theory suggests that any activity conducted within the organisation that is in the best interest of the stakeholders can enhance the firm's value. Companies that prioritise ESG are often appreciated by stakeholders, as they reduce risk in the business environment and generate cash flows –'(Benjamin et al., 2024; Hasan et al., 2024). The stakeholder theory underpins the assumption that a company will succeed if the relationship of the company with all of its stakeholders is strong. A company with higher ESG performance will be better prepared to navigate the challenges in the business environment (Kumar & Prakash, 2020 Yaduvanshi & Rai, 2025;). A company that focuses on ESG practices have an easier access to capital, thereby reducing the overall cost of capital. All these benefits comprehensively favour the company and maximise the shareholders' value and overall worth of the company.

However, the agency theory, which mainly considers the shareholders as the principal and the

board of directors as the agents, who must work in the favour of their principal (Alves & Meneses, 2024; Khandelwal et al., 2023). This theory argues that investing in ESG activities comes with a certain expenditure for which the monetary and non-monetary resources are to be deployed; these funds reduce the profits of the company. Some of the prior studies have empirically concluded that managers withdraw funds from company profits to spend on ESG practices, which works in their own best interests.

As managers may spend a hefty amount on sustainability practices to create a philanthropic image of themselves. Bzeouich et al., 2019 also mentioned that corporate earnings management doesn't go in line with spending on ESG. Past studies have shown that there exists a negative relation between ESG scores and the profitability of a business enterprise. Agency theory often discusses the information asymmetry between the management and stakeholders. The managers often succumb to greenwashing practices to compensate for the negative ESG image, which may come as a major risk for the stakeholders in the long term ——(Amin et al., 2024). Conclusively, agency theory doesn't consider ESG performance as a credible indicator of enhanced firm value.

A company with an improved ESG performance will be better able to navigate risk associated with an ever-changing business environment. It enhances the operational efficiency, leads to a robust brand value and make an easy access to capital. Research has shown that companies in developed economies were better prepared to integrate ESG into their business operations. However, few studies from the emerging economies showed some promising future of ESG in these countries. Some studies have focused on an individual parameter of ESG, such as Carbon Emissions, Board Diversity, Gender Diversity, Risk Assessment, Earnings Management, etc. These studies help us to delve a little deeper to understand how ESG is impacted or impacts the other significant aspects within the corporation. As per the trend, ESGP is being accessed through the role of Big Data and AI that how these new-edge technologies are influencing the ESG practices within the organisation.

Table 1: Summarised previous studies undertaken in the same context

S. No.	Author	Context	Variables to measure FV	Duration	Results
1	Mathath (2025)	India	Cost of Equity	2015-2022	Reduced Cost of Equity due to better ESG performance
2	Patro (2025)	India	Cost of Equity	2016-2021	ESG Performance reduces Cost of Capital
3	Moussa (2024)	UK	WACC	2014-2018	Governance is an important factor between ESGP and Cost of Capital
4	Firmansyah (2023)	Saudi	Accounting-based	2010-2020	ESG showed positive correlation with Corporate Performance
5	Aboud (2018)	Egypt	Tobin's Q	2007-2016	Higher Firm Value associated with ESG performance
6	Friede (2015)	Meta-analysis	Multiple Corporate Financial Performance	1970-2015	The majority are inclined towards a positive ESG-CFP link
7	Maji (2023)	India	Leverage, Sales growth	cross-sectional	Manufacturing firms are more environmentally sensitive
8	Al-Hiyari (2023)	Developing Economies	Firm Investment Efficiency	2011-2019	ESG has a positive impact on investment efficiency
9	Lazzolino (2023)	Multi-sectoral	Financial Efficiency	cross-sectional	ESG impact differs as per the sector's senstivity
10	Chen (2023)	China	Cost of Equity	2010-2020	ESG negatively links with Ke and reduces the risk of the market
11	Desai (2024)	India	Market to Book Value Ratio	2019-2021	ESG positively influence market value indicators
12	Fatemi (2018)	Multi-sectoral	Valuation Approach	2006-2011	Quality of Disclosure impacts the overall ESG performance
13	Khan (2016)	Multi-sectoral	Corporate Financial Performance	cross-sectional	Superior market outcomes are driven by ESG activities
14	Yahya (2023)	Nordic region	Valuation Approach	2017-2021	Social Aspect has major impact on valuation during lockdown
15	Rao (2023)	India	Financial Performance Indicators	2015-2022	Positive influence of ESG on the performance of the listed companies

Table 1 shows the summary of the previous studies investigating a similar association under various contexts, such as developed and developing economies or multi-sectoral analysis for distinct time periods. As the literature doesn't present a cohesive relationship between ESGP and FV. Studies in the past have shown both positive and negative results between ESG performance and Firm Value. Reviewing the past literature that has explored this relationship has produced some insights; some studies showed the impact was more from the social and governance aspect, whereas a study showed that for a manufacturing firm, focus should largely be on the environmental concerns

–––(de Sousa Jabbour et al., 2018). For a developing economy like India, a strong policy support from the government would encourage companies to be mindful in crafting their ESG strategies. –Dam & Scholtens, (2015) also discussed the positive impact of corporate social responsibility on financial performance. A meta-analysis of a corpus of 2000 articles published between 1970 and 2015, where the majority of the studies have reported a positive relation between ESG and Corporate financial performance (Friede et al., 2015). Drawing on the insights from all the meaningful research, we have framed a central hypothesis as follows:

Hypothesis 1 (H1). ESGP has a positive influence on FV

Methodology

In our study, we have employed a longitudinal study design, considering a dataset from a secondary source. The SEBI has now mandated BRSR filing for the top 1000 companies by market capitalisation. Out of that huge population, the study has employed a sample of the top 100 companies listed on the NSE. The NSE is the leading secondary financial market, facilitating volumes of trading in India. The study period spanned 12 years, from 2009 to 2022. For the independent variables, i.e. combined ESG scores, the Bloomberg terminal is accessed to fetch the data. The Bloomberg dataset has been providing the ESG scores for the NIFTY 100 companies for over two decades. The majority of the firms have been consistent with their sustainability practices; hence, we have considered the assessment phase. For dependant variable of the study is the firm value, the proxy variables for the measure FV– Tobin's Q, ROA and ROE have been accessed from CMIE-Prowess. The data cleaning was a major step, as the firms with missing data and some financial companies (banking & insurance companies) were excluded from our study, as their financial statements are not aligned with the specific requirements needed for the study. After going through the data-cleaning and structuring phase, the final sample stood at 724 out of 1350 entities.

Table 2. Variables proposed in the study

Variable used in the study						
Nature of the Variable	**Control Variable**		**Independent Variable**	**Dependant Variable**		
Proxy Variable	LV	FZ	ESG Scores	Tobin's Q	ROA	ROE
	Proportion of Debt with regard to Equity	Total investment in the assets	Combined E,S & G scores from the Bloomberg database	Ratio of the Market Value of Assets to its replacement cost	EBIT/ Total Assets (average value)	Measure Net Income generated over shareholders' equity
	Ngamtampong & Sukprasert (2025)	KR & Prasad (2023)	Zhang et al. (2020)	Yu and Xiao (2022)	Ngamtampong & Sukprasert (2025)	Atan et al. (2018)

Here, LV= Leverage, FZ = Firm Size, ESG= Environmental, Social and Governance, ROA= Return on Assets, ROE= Return on Equity

Table 2 presents a summary of the three types of variables used in the study. To arrive at a comprehensive conclusion, the study has employed both accounting and market-based variables to measure the firm value. Tobin's Q is considered the most credible measure to evaluate the standing of the company in the market based on total assets. Return on Assets would assess the company's ability to generate profits through the optimum utilisation of its assets. Return on Equity provides an estimate of the financial performance by calculating the return generated over equity capital. The study also considers two control variables: Total Assets to even out the firm size, and LV for debt proportion to measure risk.

Before proceeding to data analysis, the study has taken two tests to diagnose the nature of the data. To test the stationarity of the data, the Levin, Lin and Chu (LLC) test is employed. Furthermore, the Variance Inflation Factor (VIF) is also used to test the multicollinearity.

To explore the impact of ESGP on FV, the following models are constructed:

Model 1 (M-1)

$$ROA_{it} = \beta_0 + \beta_1 ESGP_{it} + \beta_2 TA_{it} + \beta_3 LV_{it} + \varepsilon_{it}$$

Model 2 (M-2)

$$ROE_{it} = \beta_0 + \beta_1 ESGP_{it} + \beta_2 TA_{it} + \beta_3 LV_{it} + \varepsilon_{it}$$

Model 3 (M-3)

$$Tobin's\ Q_{it} = \beta_0 + \beta_1 ESGP_{it} + \beta_2 TA_{it} + \beta_3 LV_{it} + \varepsilon_{it}$$

Here, $ESGP_{it}$ represents ESG performance, TA_{it} shows firm size, based on total assets, LV_{it} means Leverage, showing business risk, ROA_{it} means return on assets, ROE_{it} depicts return on equity and is the error term.

Results

Table 3. Descriptive Analysis

Variables	Ob.	Mean	St. DEV	Min.	Max.
ESG	724	38.94856	13.27364	13.85321	75.28743
Tobin's Q	724	3.59384	8.39388	0.39282	23..7875
ROA	724	10.328373	9.39238	-26.59472	96.49832
ROE	724	22.37462	17.34843	-103.38473	124.58372
LV	724	61.34564	74.28472	0	755.20541
Total Assets	724	638857.3	1321234.5	2134.45	1334354663

Here, ESG= Environmental, Social and Governance, ROA= Return on Assets, ROE= Return on Equity, LV= Leverage

Table 3 presents the descriptive figures of the study, comprising measures of average, standard deviation and range of minimum and maximum values. For the timeframe (2009-2022), ESGP reflects a significant divergence, with the uppermost value at 75.287 % and the lowest at 13.853%, exemplifying a major disparity among firms while disclosing the metrics. Concerning the FV indicators, Tobin's Q (market value measure) stands at the lowest and also shows a negligible variability. The ROE (accounting-based measure) represents the highest average, with a major discrepancy within the FV proxies. Additionally, the LV (leverage) reflected the minimum value, and the FZ, represented by the Net block, records the highest central value.

Table 4. Correlation Statistics

	ROA	ROE	Tobin's Q	ESGP	LV	Total Assets
ROA	1					
ROE	0.7034		1			
Tobin's Q	0.3923		0.17364	1		
ESGP	-0.1028		-0.23842	-0.1234	1	
LV	-0.5938		-0.3847	-0.1274	-0.0128	1
Total Assets	-0.2847		-0.2847	-0.1038	0.3103	0.201921

Table 4 offers the correlation matrix amid all the concerning variables. To note, ESGP displays an inverse association with all the FV variables, accounting-based- ROA & ROE and market-based- Tobin's Q. ESGP depicts a negative correlation with LV and a positive one with the Total assets, in the pertaining timeframe. The correlation coefficient seems normal for all the variables, except for the accounting-based FV variables (ROA & ROE) for the study. Hence, the investigation doesn't hint at any multicollinearity issues within the chosen variables.

Table 5. Regression Outcomes

	ROA	ROE	Tobin's Q
Variables			
ESG	0.01885	0.04334	0.023445
	-3.587***	-5.23***	3.133***
LV	0.0045637	0.0127463	0.0031283
	-9.42***	-8.12***	-1.5*
Net Block	2.85×10-7	6.45×10-7	4.98×10-7
	-4.24***	-2.453***	-1.3
Constant	0.82493	1.9483	0.7123
	19.385***	18.48***	2.98***
Obs	724	724	724
R2	0.3902	.323	.213
*p <.1, **p < .05 and ***p < .01, Obs= Observation			

Table 5 shows the regression analysis on Models 1, 2 and 3 for the observational period (2009-2022). The independent variable in all three models is the ESG Performance measured through combined ESG scores from Bloomberg's database, and the control variables are FZ (firm size), measured by total assets, and LV (denoting business risk). The measured variables measure financial performance through ROE and operating performance through ROA.

Model 1 confirms a non-significant influence at 1% significance level for the given time frame of the study. The control variables, FZ and LV, also show a inverse and substantial impact at 10% level. Model 2 reports a non-positive effect at 1% significant level; the control variables FZ and LV displayed a negative significant impact at 5% and 1% significant level, respectively. However, the dependent variable, Tobin's Q, showed a positive and significant influence at 1% significant level in model 3, and FZ depicted a non-significant impact in the study's assessment period.

Discussion

The empirical assessment of the paper reported a non-positive impact of ESGP on accounting-based proxy variables to calculate firm value, i.e. ROA and ROE. This gives us an idea about the penetration of ESG practices within the operational activities of NSE-listed companies. The earlier phase of BRSR was voluntary in nature, leaving the managers to act as per their convenience. It is in FY 2022; the SEBI mandated the filing of BRSR by the top 1000 listed companies. This analysis also shows the delineation of the managers to spend the funds for ESG practices, as it negatively impacts the financial performance. There is a lack of awareness among investors to integrate their sustainability goals into their portfolios. This shows the short-sightedness of the investors for short-term profits over long-standing gains. This study also adds to the previous studies that have reported an inverse relationship —(Atan et al., 2018; Garcia et al., 2017; Sassen et al., 2016). The findings contradict the prior studies that showed the positive impact of ESG on firm value —(Fatemi et al., 2018; Velte, 2016; Wong et al., 2021). The awareness about sustainability was slow in India; it was after the Corporate Social Responsibility mandate in 2013, and the UN-SDGs in 2015, that companies began to understand the importance of non-financial performance. However, Tobin'Q, recorded a positive impact, aligning with the findings of the past studies '(Shahrun et al., 2024). There have been several studies in the past that have presented a negative relationship between Tobin's Q and Firm value. The conclusions of the study deviated from the theories suggesting a direct relation between ESGP and FV. The control variables of the study, FZ and LV, showed variation in the results. The LV showed a significant negative relation in M-1 and M- 2 and a positive relation in M-3, whereas LV reported a significantly negative relation in all three models. The study indicates that ESGP tends to decline with companies earning high ROE and ROA; the firms with high leverage are the least informed about the ESG practices. The study is unable to conclude the acceptance of the hypothesis, as only the market-based measure showed a positive influence. The listed companies in India should continuously strive to do better with their ESG practices, and a meticulous disclosure of these practices in annual reports could generate some insights. A sample that includes the ESG performance after 2022, when SEBI has mandated the BRSR reporting, would show robust ESG scores. This would encourage exploring the connection between ESG performance and FV with a longitudinal study.

Conclusion

The study explored the association between ESGP and the firm value of NSE-indexed top 100 entities. For the timeframe from 2009 to 2022, the FV of the companies was evaluated through accounting-

based and market-based measures. These metrics were accessed from CMIE-Prowess, which provides a pool of annual reports. The predictor variable, ESGP were accessed from the combined ESG score from Bloomberg's terminal. For 724 observations, ESGP was regressed against Tobin's Q, ROA and ROE along with two control variables, FZ and LV. The outcomes reported an adverse impact of ESG on ROA and ROE, and positively influence of ESG on Tobin's Q.

This study is also not free from a few shortcomings; we have examined the sample of 100 firms; a larger sample of 150 or 250 firms would generate a more comprehensive result. A dataset after 2022 would provide a more robust ESG score after SEBI mandated the BRSR filing. We have used NSE listed firm, a dataset from another stock exchange, or a cross-country analysis could be conducted in the future. Some other reputed databased such as Thomos Reuters, MSCI and Sustainalytics, could be accessed for combined ESG scores.

Implications

First and foremost, this research helps educational institutes and builds a theoretical foundation for understanding ESG factors by presenting a holistic examination of its key concepts, frameworks, and underlying theories, thereby compiling the key takeaways from existing literature. ESG is a multidisciplinary field encompassing management, finance, accounting, environmental, and social studies, thus facilitating research and collaboration in these disciplines. The study also aids academicians in engaging their students in ongoing discussions about ESG and sustainability. Second, it empirically assesses the existing body of literature to develop new data and insights, validating present theories and unveiling the trends and patterns surrounding this area. Practically, it offers realistic recommendations through cluster analysis, fuelling the constant debate on the impact of ESG performance and FV in steering a positive outcome, informed decision-making, and subsequent attainment of the UN SDGs. Investors and asset managers can incorporate these findings to tailor their investment strategies and portfolio management, presenting evidence-driven insights to make effective decisions by recognising gaps. Global Reporting Initiatives (GRI) and the Task Force on Climate-Related Financial Disclosure (TCFD) can frame policies that motivate companies to safeguard accountability and impartiality in communicating ESG performance.

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