

## **Sustainable Profits: Unveiling the Link between ESG Practices and Financial Performance in Indian Companies**

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### **Abstract**

*This study investigates the connection between ESG practices and business performance in the Indian context. Utilizing data from the CMIE Prowess and Bloomberg databases, we examine the impact of ESG scores on three financial performance indicators: Return on Assets (ROA), Profit After Tax (PAT), and Earnings Before Interest and Taxes (EBIT). Our findings reveal that environmental and governance scores positively influence ROA and PAT, highlighting the importance of these components in sustainable profitability. In contrast, social scores show little impact, suggesting that the financial benefits of social initiatives may take longer to materialize. The study underscores the value of integrating ESG practices into corporate strategy for ethical and financial reasons.*

**Keywords:** ESG practices, Corporate Financial Performance, Return on Assets, Net Income, EBIT, Sustainability, Financial Indicators

### **1. Introduction**

Environmental, social, and governance (ESG) practices have become increasingly important in India in recent years due to changes in regulations, demand from stakeholders, and a global shift towards sustainable development. The Indian corporate landscape presents a unique context for examining the relationship between ESG

practices and firm value due to its diverse economic sectors, evolving regulatory environment, and increasing awareness of sustainability.

To encourage ESG practices among firms, the Indian government and regulatory agencies have launched a number of programmes. According to the Ministry of Corporate Affairs (2013), the Enterprises Act, 2013 requires a specific category of enterprises to allocate a minimum of 2% of their average net income towards corporate social responsibility (CSR) initiatives. Furthermore, in order to improve openness in ESG reporting, the Securities and Exchange Board of India (SEBI) has released guidelines requiring the top 1,000 listed businesses by market capitalization to disclose their Business Responsibility and Sustainability Report (BRSR) (SEBI, 2021) every year.

The concept of sustainability has increasingly become a focal point in the corporate world, driven by a growing understanding that economic, environmental, and social factors are interconnected and crucial for long-term success. The concept of sustainability was first derived from ecological and environmental concerns, but it has now expanded to encompass satisfying current needs without affecting the capacity of future generations to satisfy their own (Seuring & Müller, 2008; Rajeev et al., 2017).

The United Nations Principles of Responsible Investment (PRI) in 2006 marked the beginning of the formation of ESG investing, which emphasizes the importance of integrating Environmental, Social, and Governance (ESG) policies into company plans. This movement has seen remarkable growth, with the number of PRI signatories increasing from 63 in 2006 to 3826 in 2021, and total assets under management expanding from \$6.5 trillion to \$121.3 trillion during the same period (PRI, 2021).

Academic discourse on ESG has expanded to include a variety of topics, such as ESG disclosure, rating, and its impact on financial performance, firm value, and corporate risk (Friede et al., 2015; Oikonomou et al., 2012). However, the relationship between ESG performance and firm value is still debated, with studies showing mixed results. While some researchers argue that ESG performance can enhance firm value by reducing costs and risks (McWilliams & Siegel, 2001), others suggest that CSR initiatives might not contribute to shareholder value (Friedman, 1970).

Sustainable supply chain management has evolved as a strategic approach for companies to address societal and environmental challenges while also achieving market share and reducing waste (Linton et al., 2007; Touboulic & Walker, 2015). In developing economies, there is an increasing emphasis on evaluating sustainability performance (Jakhar et al., 2018; Luthra & Mangla, 2018; Schroeder et al., 2018; Delmonico et al., 2018). As stakeholders become more aware of the need to address environmental depletion, the demand for environmental and social responsibility grows (Wilhelm et al., 2016; Cherrafi et al., 2017).

Frameworks for evaluating sustainability performance that are globally recognized include those developed by the Global Reporting Initiatives (GRI) and the United Nations, as well as the Institution of Chemical Engineers (IChemE) and Thomson Reuters for Economic, Social, and Governance (ESG) performance (Genovese et al., 2017).

The ESG framework evaluates a company's operations, business strategy, and overall sustainability impact in relation to how well it incorporates environmental, social, and governance principles. The environmental aspect focuses on minimizing a business's environmental impact, encompassing its products, services, supply chain, and operations. The social aspect centers on a business's broader impact on society and workplace culture, contributing to fairness and investing in equal opportunities for employees, the supply chain, and local communities. Governance pertains to the decision-making processes, reporting mechanisms, and ethical conduct of a business, as well as transparency with stakeholders.

The objective of this study is to evaluate the financial performance of companies that implement ESG practices and highlighting their benefits. The study focuses on Corporate Financial Performance (CFP), which is measured using indicators such as Return on Assets (ROA). The ESG scores, which indicate how well a company handles environmental, social, and governance factors, will be used to measure the effectiveness of ESG initiatives. The main aim of this research is to analyze the sustainability performance of companies in a developing economy, with a focus on India. The data used for the study was obtained from the Bloomberg and CMIE prowess database. Panel data modelling techniques will be applied to test the relationship between ESG practices and financial performance.

According to the study, having a higher overall ESG (Environmental, Social, and Governance) score is linked to better performance. The study results show that robust ESG standards significantly and favorably impact financial performance. This study offers important insights into the economic benefits of responsible business practices and emphasizes the connection between sustainability and financial success worldwide. The findings can be useful for businesses, policymakers, and stakeholders looking to make informed decisions about responsible business practices.

The format of the paper is as follows: An overview of the literature on the topics of sustainability, financial performance, and ESG ratings is presented in Section 2. In Section 3, the data and technique are described. Results and discussion are presented in Section 4, and conclusions and consequences are presented in Section 5.

## **2. Literature Review**

The theoretical underpinning of the relationship between Environmental, Social, and Governance (ESG) practices and firm value is rooted in two principal theories: stakeholder theory and the resource-based view (RBV) theory. Stakeholder theory, proposed by Freeman (1984), posits that firms should address the interests of all stakeholders, including employees, customers, society, and investors, rather than focusing solely on shareholder wealth maximization. This broader engagement is believed to enhance corporate reputation and, consequently, firm value (Freeman, 1984; Battisti et al., 2019).

However, the RBV theory contends that businesses can gain a competitive edge and enhance their economic performance by developing unique resources and capabilities (Barney, 1991). In the context of ESG, this theory implies that integrating sustainable practices can lead to the creation of intangible assets such as advanced technology, superior reputation, and a strong corporate culture, which can contribute to long-term economic benefits (Russo & Fouts, 1997; McWilliams & Siegel, 2000; Teece, 1980).

The literature presents mixed findings regarding the impact of ESG practices on firm value. Some studies support the notion that ESG investments can lead to an increase in

firm value by reducing costs, mitigating risks, and enhancing reputation (Fatemi et al., 2018; McWilliams & Siegel, 2001). Wong et al. (2020) found a positive association between ESG investments and firm value in developing economies, with ESG practices leading to a lower cost of capital and an increase in Tobin's Q.

However, other studies argue that ESG practices may not always contribute to shareholder value and could be viewed as an additional cost or inefficient use of resources (Friedman, 1970; Brammer et al., 2006). The trade-off theory suggests that while ESG practices may have short-term costs, they could lead to long-term benefits. Chen and Yang (2020) found that while there is substantial value creation in the short run, there might be reversals in the long run due to investor exaggeration.

The relationship between ESG and firm value also depends on industry-specific factors and the level of environmental or financial risk faced by firms (Lu et al., 2021). Firms in industries with high environmental threats, such as energy and chemicals, may need to adopt strategic ESG management to meet stakeholder expectations and regulatory requirements.

The relationship between ESG practices and investment performance has garnered significant attention. Derwall et al. (2007) found that portfolios with higher eco-efficiency scores tend to provide better investment returns. Friede, Busch, and Bassen (2015) conducted a meta-analysis of over 2,200 studies and found that the majority indicate a positive relationship between ESG factors and corporate financial performance. This positive relationship has been found to be stable over time, suggesting that ESG factors play an increasingly important role in investment decisions.

The impact of ESG controversies on firm value is a growing area of research. Stakeholder theory suggests that negative media coverage of ESG controversies can lead to increased skepticism and perceptions of corporate hypocrisy, which can harm firm value (Godfrey et al., 2009; Du et al., 2010). Legitimacy theory posits that firms experiencing controversies may find their organizational legitimacy challenged, leading to a decrease in firm value (Suchman, 1995; Palazzo & Scherer, 2006).

Several studies have looked at how ESG practices affect business success in India. For instance, Jain and Kaur (2016) found a positive relationship between CSR activities and

financial performance among Indian companies, suggesting that socially responsible practices contribute to enhanced profitability. Similarly, Gupta and Goldar (2005) examined the environmental performance of Indian manufacturing firms and found that cleaner production technologies positively influence financial performance.

The Indian investment landscape has also seen a growing interest in ESG-focused funds. According to a report by Morningstar India, the assets under management (AUM) of ESG funds in India have witnessed significant growth, indicating an increasing investor preference for sustainable investment options (Morningstar India, 2021). This trend suggests that ESG factors are becoming crucial in investment decisions, potentially impacting firm valuation.

While there is a positive trend towards ESG integration in India, challenges such as the lack of standardized ESG reporting frameworks, limited awareness among SMEs, and varying levels of ESG adoption across industries persist. Additionally, limited access to ESG scores data, particularly after Bloomberg discontinued publishing these scores, has constrained research in this area. Despite these challenges, there are opportunities for further research and the development of tailored ESG frameworks for the Indian context. The data we extracted just before Bloomberg's discontinuation remains valuable for exploring the relationship between ESG scores and firm value for Indian firms.

The following theories are put out in light of the review of the literature:

H1: Firms' ESG composite performance positively affects firm value.

H2: The governance category of ESG issues has the biggest influence on the performance of corporate finance.

### **3. Data and Methodology**

This study uses data extracted from two sources, the CMIE prowess database and the Bloomberg database. The CMIE prowess database contains information on individual companies gathered from audited annual reports, the Ministry of Company Affairs, and company filings with stock exchanges. This database includes data on the firms' financial

information. The Bloomberg database provides yearly ESG scores for the companies from 2018 to 2022. We have selected the companies listed under NIFTY100 as the set of firms to analyze. Thus, we have data for 100 companies, for 5 years. All the variables used in the model are listed in Table 1. The variables' summary statistics are displayed in Table 2.

**Table 1: Dependent and Explanatory Variables**

<b>Dependent Variables</b>	<b>Measures</b>
Return on Assets (ROA)	Effectiveness of assets
Profits after taxes	Profitability
Earnings before interest and tax (EBIT)	Profitability
<b>Explanatory Variables</b>	
Environmental	Environmental score
Social	Social score
Governance	Governance score
Total ESG	Total ESG score
<b>Control Variables</b>	
Size	Total assets
Leverage	Debt to equity ratio
Liquidity	Interest coverage ratio

**Table 2: Summary Statistics**

<b>Variable</b>	<b>Obs</b>	<b>Mean</b>	<b>Std. dev.</b>	<b>Min</b>	<b>Max</b>
ROA	443	8.978175	11.3323	-74.98378	95.17947
PAT	420	4088.546	7587.641	-36088.2	39084
EBIT	420	10987.39	23729.43	-27482.4	197853
Size	445	2.77E+12	7.28E+12	6.97E+09	5.95E+13
Leverage	442	265.4949	2203.932	0	30018.95
Liquidity	407	262.9166	1285.222	-248.5	16287.05
Environmental Score	419	28.76129	21.97216	0	81.18393
Social Score	420	30.76913	12.51312	3.657799	69.89117
Governance Score	419	81.95885	8.305409	36.54425	98.6153
TotalESG Score	423	47.02004	12.31952	15.4914	76.98421

Source: Authors' calculations

The purpose of this paper is to examine the impact of ESG practices on firms' financial performance. We have selected three dependent variables to gauge the financial performance: profits after taxes, earnings before interest and taxes (EBIT), and return on

assets (ROA). These variables are indicators of the firms' profitability. The ratio of a company's profits in a given time to the assets used to create profits is known as return on assets (ROA). ROA is a term used to describe how well assets are used to generate profit.

The explanatory variables used in this study are the firms' environmental score, social score, governance score, and total ESG. We have also included some control variables, such as leverage which is measured by debt-to-equity ratio, liquidity which is measured by interest coverage ratio, and size which is measured by total assets.

We employed a fixed-effect panel data model, taking into account the data structure, to examine the connection between the different independent factors and the companies' corporate performance. The equations for panel data analysis are as follows.

Model 1:

$$\log(\text{ROA}) = \alpha_1 + \beta_1(\text{environmental}) + \beta_2(\text{size}) + \beta_3(\text{leverage}) + \beta_4(\text{liquidity}) + \varepsilon$$

Model 2:

$$\log(\text{ROA}) = \alpha_2 + \beta_1(\text{social}) + \beta_2(\text{size}) + \beta_3(\text{leverage}) + \beta_4(\text{liquidity}) + \varepsilon$$

Model 3:

$$\log(\text{ROA}) = \alpha_3 + \beta_1(\text{governance}) + \beta_2(\text{size}) + \beta_3(\text{leverage}) + \beta_4(\text{liquidity}) + \varepsilon$$

Model 4:

$$\log(\text{ROA}) = \alpha_4 + \beta_1(\text{total ESG}) + \beta_2(\text{size}) + \beta_3(\text{leverage}) + \beta_4(\text{liquidity}) + \varepsilon$$

Model 5:

$$\log(\text{profit after tax}) = \alpha_5 + \beta_1(\text{environmental}) + \beta_2(\text{size}) + \beta_3(\text{leverage}) + \beta_4(\text{liquidity}) + \varepsilon$$

Model 6:

$$\log(\text{profit after tax}) = \alpha_6 + \beta_1(\text{social}) + \beta_2(\text{size}) + \beta_3(\text{leverage}) + \beta_4(\text{liquidity}) + \varepsilon$$

Model 7:



$$\log(\text{profit after tax}) = \alpha_7 + \beta_1(\text{governance}) + \beta_2(\text{size}) + \beta_3(\text{leverage}) + \beta_4(\text{liquidity}) + \varepsilon$$

Model 8:

$$\log(\text{profit after tax}) = \alpha_8 + \beta_1(\text{total ESG}) + \beta_2(\text{size}) + \beta_3(\text{leverage}) + \beta_4(\text{liquidity}) + \varepsilon$$

Model 9:

$$\log(\text{EBIT}) = \alpha_9 + \beta_1(\text{environmental}) + \beta_2(\text{size}) + \beta_3(\text{leverage}) + \beta_4(\text{liquidity}) + \varepsilon$$

Model 10:

$$\log(\text{EBIT}) = \alpha_{10} + \beta_1(\text{social}) + \beta_2(\text{size}) + \beta_3(\text{leverage}) + \beta_4(\text{liquidity}) + \varepsilon$$

Model 11:

$$\log(\text{EBIT}) = \alpha_{11} + \beta_1(\text{governance}) + \beta_2(\text{size}) + \beta_3(\text{leverage}) + \beta_4(\text{liquidity}) + \varepsilon$$

Model 12:

$$\log(\text{EBIT}) = \alpha_{12} + \beta_1(\text{total ESG}) + \beta_2(\text{size}) + \beta_3(\text{leverage}) + \beta_4(\text{liquidity}) + \varepsilon$$

#### 4. Results and Discussions

This section presents the results of the regression analysis conducted to examine the impact of Environmental, Social, and Governance (ESG) scores on firm performance, measured by Return on Assets (ROA), Profit After Tax (PAT), and Earnings Before Interest and Tax (EBIT). Table 3 presents regression results with ROA as the dependent variable, Table 4 with PAT, and Table 5 with EBIT.

We get the following results when we have taken return on assets as our dependent variable and environmental, social, governance, and total ESG as our independent variables. The coefficient for the environment is positive and significant, suggesting that if we increase our environmental score, our firm performance also increases.

The size of the firm also has a positive and significant impact on the firm performance, whereas leverage and liquidity have a negative impact. In the second model, we can

observe that social score has a negative impact on firm performance. The reason behind this could be that while socially responsible practices may enhance a firm's reputation and brand image over the long term, they might not necessarily translate into increased consumer demand or higher sales in the short term. Therefore, firms might incur costs related to social initiatives without immediately realizing corresponding revenue increases, negatively impacting financial performance. In the third model, we can observe a positive and significant impact of governance scores on a firm's financial performance. Total ESG also has a positive impact.

**Table 3: Regression Results with Return on Assets (ROA) as Dependent Variable**

Model	(1)	(2)	(3)	(4)
Variables	logROA	logROA	logROA	logROA
Environmental Score	0.00828* (2.58)			
Social Score		-0.00298 (-0.54)		
Governance Score			0.0189** (2.87)	
TotalESG Score				0.0128 (1.95)
Log of Size	0.310** (2.61)	0.490*** (3.61)	0.343** (2.8)	0.315* (2.31)
Log of Leverage	-0.0743* (-2.02)	-0.0943* (-2.32)	-0.0837* (-2.10)	-0.0902* (-2.23)
Log of liquidity	-0.0445 (-1.21)	-0.0811* (-2.03)	-0.0816* (-2.07)	-0.0894* (-2.23)
Constant	-6.439* (-2.05)	-10.79** (-3.03)	-8.517** (-2.69)	-6.795 (-1.93)
N	351	352	351	351

Source: Authors' calculations. t statistics in parentheses. \*p<0.05, \*\* p<0.01, \*\*\* p<0.001

When we take profits after taxes as our dependent variable to measure the firm's performance, Firm size, and liquidity have positive and significant coefficients, suggesting a positive impact on the profits of the firm. Leverage has a negative coefficient in Model 5 and a positive in other models. Environmental, social, governance, and total ESG scores all four positively impact the firm's profits, suggesting better corporate performance. We can observe that environmental, governance and total ESG

have significant impacts, and social has an insignificant but positive impact on a firm's profits.

**Table 4: Regression Results with Profit After Tax as Dependent Variable**

Model	(5)	(6)	(7)	(8)
Variables	logProfitaftertax	logProfitaftertax	logProfitaftertax	logProfitaftertax
Environmental Score	0.0117*** (3.07)			
Social Score		0.00177 (0.3)		
Governance Score			0.0234** (3.19)	
TotalESG Score				0.0186* (2.56)
Log of Size	0.982*** (7.2)	1.133*** (7.9)	1.033*** (7.95)	0.941*** (6.48)
Log of Leverage	-0.00832 (-0.19)	0.00058 (0.01)	0.00891 (0.2)	0.0199 (0.44)
Log of liquidity	0.212*** (4.86)	0.224*** (5.11)	0.223*** (5.17)	0.243*** (5.45)
Constant	-19.77*** (-5.48)	-23.58*** (-6.29)	-22.79*** (-6.80)	-19.40*** (-5.18)
N	348	349	348	349

Source: Authors' calculations. t statistics in parentheses. \*p<0.05, \*\* p<0.01, \*\*\* p<0.001

**Table 5: Regression Results with Earnings Before Interest and Tax (EBIT) as Dependent Variable**

Model	(9)	(10)	(11)	(12)
Variables	logEBIT	logEBIT	logEBIT	logEBIT
Environmental Score	0.00402 (1.61)			
Social Score		0.00243 (0.63)		
Governance Score			0.0039 (0.83)	
TotalESG Score				0.00621 (1.31)
Log of Size	0.713*** (7.99)	0.749*** (8.13)	0.753*** (8.88)	0.695*** (7.38)
Log of Leverage	0.0542 (1.88)	0.0584* (2)	0.0576* (1.99)	0.0659* (2.26)
Log of liquidity	0.206*** (7.25)	0.209*** (7.43)	0.209*** (7.4)	0.221*** (7.73)
Constant	-11.86*** (-5.03)	-12.8*** (-5.32)	-13.16*** (-6.06)	-11.64*** (-4.82)
N	360	361	360	362

Source: Authors' calculations. t statistics in parentheses. \*p<0.05, \*\* p<0.01, \*\*\* p<0.001

When we take earnings before interest and taxes (EBIT) as our dependent variable and a measure of corporate performance, we can see that EBIT is positively and significantly impacted by size, leverage, and liquidity. We can also observe that environmental, social, governance, and total ESG positively impact EBIT, suggesting that if we increase these scores, our EBIT will also increase. Therefore, the firm's performance will increase.

The findings of this study highlight the differential impact of ESG components on firm performance in the Indian context. Environmental and governance scores positively influence ROA and PAT, indicating that these aspects are crucial for sustainable profitability. Social scores, however, do not show a significant impact, suggesting that the financial benefits of social initiatives may take longer to materialize. The study underscores the importance of incorporating ESG practices into corporate strategy for ethical and regulatory compliance and enhancing financial performance.

## **5. Conclusion and Policy implications**

Our findings reveal that environmental and governance scores have a positive impact on both ROA and PAT, suggesting that these components of ESG are crucial for achieving sustainable profitability. The positive association between environmental scores and firm performance aligns with the growing recognition of the importance of environmental stewardship in the corporate world. Companies that invest in environmentally sustainable practices not only support the planet's health but also strengthen their financial performance, likely through improved efficiency, reduced costs, and a stronger reputation among stakeholders.

The significant impact of governance scores on firm performance underscores the importance of effective governance mechanisms in enhancing corporate value. Building trust with customers, investors, and other stakeholders is crucial for good governance practices including accountability, transparency, and ethical behaviour. This can improve financial results.

On the other hand, our analysis indicates that social scores do not have a significant impact on firm performance. This finding suggests that while socially responsible

practices are important for ethical reasons and for building a positive brand image, they may not immediately translate into financial gains. It is plausible that the advantages of social endeavours, such as community involvement and employee welfare efforts, can take longer to manifest in observable financial outcomes.

The study also highlights the positive impact of the Total ESG Score on firm performance, albeit not statistically significant in some models. This suggests that a holistic approach to ESG, encompassing environmental, social, and governance aspects, is beneficial for firms, even if the individual components may have varying degrees of impact.

The results of this study have important implications for businesses, policymakers, and stakeholders. For businesses, integrating ESG practices into corporate strategy is not only a matter of ethical responsibility but also a strategic decision that can lead to improved financial performance. Through rules and incentives, policymakers may play a critical role in promoting ESG practices. For instance, mandating ESG disclosure for all companies, not just the top 1000 by market capitalization, could enhance transparency and encourage more firms to adopt sustainable practices.

For stakeholders, including investors and consumers, ESG scores can serve as valuable indicators of a company's commitment to sustainability and its potential for long-term value creation. Regulators could also encourage the development of standardized ESG reporting frameworks to ensure comparability and reliability of ESG information, which would aid investors in making informed decisions.

Despite the positive trends towards ESG integration in India, challenges remain, such as the lack of standardized ESG reporting frameworks, limited awareness among small and medium enterprises (SMEs), and varying levels of ESG adoption across industries. Addressing these challenges requires concerted efforts from businesses, regulators, and the research community to develop tailored ESG frameworks and reporting standards for the Indian context.

This study also opens avenues for further research. Future studies could explore the impact of ESG practices on other aspects of firm performance, such as innovation, market share, and customer satisfaction. Furthermore, longitudinal research may shed light on

how ESG practices affect business success over the long run. Investigating the sector-specific impacts of ESG practices and the role of cultural factors in shaping ESG adoption and its outcomes in India would also be valuable.

In conclusion, this study underscores the significance of ESG practices in enhancing firm performance in India. As the emphasis on sustainability increases on a global scale, understanding the implications of ESG practices for businesses and the economy will be crucial for fostering sustainable development and responsible corporate conduct. Policymakers have a vital role to play in creating an enabling environment for ESG integration, which could result in a more affluent and sustainable future for all stakeholders.

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