

IMPACT OF ESG SCORES ON FIRM PERFORMANCE: AN EMPIRICAL STUDY OF NIFTY 200

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ABSTRACT

This research paper will explore how the Environmental, Social, and Governance (ESG) scores determine the financial performance of companies in the vibrant corporate environment in India. Since the Net Zero emissions target is committed under the country and mandatory sustainability disclosures are institutionalised by the Business Responsibility and Sustainability Reporting (BRSR) framework, the measurement of the economic relevance of the ESG performance has become a necessity across various market participants. The main goal of the research is to establish the effects of composite ESG ratings as well as the scores of individual pillars of profitability on market-based valuation and accounting-based profitability. Using a balanced dataset of 138 non-financial Nifty 200 firms with three financial years (414 firm-year observations), the panel regression employs Tobin Q as a proxy of the investor perceived value and Return on Assets (ROA) as a measure of operational efficiency, and a fixed-effects panel regression. Its findings reveal what the paper refers to as an ESG paradox: at the composite and pillar-level ESG performance, each significantly and positively correlates with market valuation, but their respective correlations with short-run profitability are negative. In the category of individual pillars, Governance comes out as the driving force between firm value and internal efficiency gains. The results suggest that ESG obligations, though they are likely to drive short-term earnings down in compliance and transition costs, are seen by the capital markets as believable signs of less risky behaviour and sustainable value creation. The paper concludes that ESG involvement is no longer a discretionary corporate undertaking, but is now a strategic requirement which has a material impact on the valuations of markets- observations that have both practical import to corporate strategists, institutional asset managers and regulators in their efforts to align business development with the sustainability agenda in India.

KEYWORDS: Sustainability, ESG, Net Zero

1. INTRODUCTION

The philosophical concept of sustainability is based on what is called intergenerational equity, which means that today there should not be a drain on resources and opportunities that the future generation will require to live a good life (WCED, 1987). when converted into the business context, this principle entails firms intentionally reinforcing adverse environmental and social impacts and also preserving the economic sustainability of the stakeholders in the long term. John Elkington (1997) summarised this three-dimensional accountability into the current-day known Triple Bottom Line people, planet, and profit model, which questions the idea that financial returns were the only measure of organisational success. The theoretical field of corporate responsibility extends to the main contribution of Howard Bowen (1953), who theorized about social responsibilities, through the stakeholder-centric model of strategic management introduced by R. Edward Freeman, through the final form of structured, metric-based ESG models at the beginning of the twenty-first century (Passas, 2024). Such a course of action is an indication of the interval change: no longer will there be voluntarism artificial neediness, but an institutionalised, quantifiable accountability.

Traditional financial measures are more likely to give precedence to profitability and efficiency over comparatively brief periods of time, whilst those related to sustainability focus on future resilience at the long-run, ethical behavior, and relationships with inclusive stakeholders. The ESG measures, which are also known as Environmental, Social, and Governance, have become an effective mediation between these two orientations, transforming generic ethical aspirations into quantifiable, similar non-financial performance indicators (Passas, 2024). Portability of integrated reporting frameworks, attempting to relate financial and non-financial disclosures, in a unified discourse of value creation, has also facilitated the rising salience of ESG (Eccles & Serafeim, 2013). The Principles of Responsible Investment (PRI) have led the pack in the investment sector in pushing large institutional investors towards integrating ESG factors in their portfolio management and interactions policies. According to recent evidence, PRI signatories who are jointly managing trillions of dollars have institutionalised their commitment to responsible investment frameworks (PRI, 2023). At the same time, groundbreaking international agreements, including the most famous Paris

Agreement on climate change have put pressure on corporate decarbonisation strategies and on the publicity of climate-related financial risks. Ecological disturbance, growing inequalities, growing regulatory burdens, and the growing stakeholder vocalization are swamping pressure on companies in different industries to incorporate the concept of ESG thinking at the core of their strategic decision-making (Eccles, Ioannou and Serafeim, 2014). Researchers have also noted that companies whose performance in relation to ESG is high are likely to have reduced costs of capital and a more secure access to debt funding, a greater benefit over time where investors choose the responsible assets (Sharfman and Fernando, 2008).

1.1 ESG Practices in the Indian Corporate Landscape

The trend among the corporate world in India has been a definitive tact towards adoption of ESG in the last one decade, which has been facilitated in large part by the normative regulatory intervention. The Business Responsibility Report (BRR) was initially reported by the Securities and Exchange Board of India (2012) in every sense of the hundred largest capitalised listed corporations to publish how their operation complied with the notion of responsible business conduct. This requirement was later extended in 2015, to cover the top five hundred listed organizations. Understanding that the qualitative orientation of the BRR could not be used to perform serious cross-firm comparison and international investor engagement, in 2021, SEBI revised the framework by combining it with the much more extensive Business Responsibility and Sustainability Report (BRSR). Since the 2022/2023 financial year, BRSR compliance is required self-governed on the top thousand listed companies by market capitalisation in India (SEBI, 2021), which is a qualitative jump in the depth and standardisation of sustainability disclosure requirements in India. Indian experience reflects an international compliance trend, according to which standardised sustainability disclosure is no longer an additional duty but one of the main principles of corporate governance and investor protection (Ioannou and Serafeim, 2017).

1.2 ESG and India's Net Zero Commitment

The publicly stated aim of Net Zero carbon emission in India by 2070 has created new triggers in the corporate sustainability planning. The pledge has triggered a redesigning of the climate-related endeavors-carbon disclosure programmes, green financing tools, and ESG-related investment products have both shifted out to the side-line issues and to centre of strategic focus at boardrooms and even among financial institutions in India (Reserve Bank of India, 2023). The globally oriented transparency in ESG reporting has become a strong instrument of showing corporate integrity as the companies relinquish secrets of sustainability goals and development; as a transparent company, Indian companies can share capital with the outside investors with a clear mindset trying to raise funds using environmental, social, and governance standards. This relationship is beneficial to individual businesses and at the same time will help India achieve its national goals of a highly-sustaining, eco-friendly future. Continuing this trend, SEBI introduced the BRSR Core framework in 2023, requiring a gradual programme of externally assured ESG reporting by top-listed companies- a policy that will lead to higher reliability of data and greater trustworthiness of resorted sustainability indicators in investors.

1.3 ESG Scores

Although there is an increase in the disclosure requirements, the accessibility of standardised and similar ESG performance data of the Indian firms is limited. ESG rating agencies of the third party are crucial in filling such measurement gaps. According to CRISIL, one of the leading credit and risk rating agencies in India, ESG rating scores are all rated on 0 to 100, achieved (normally) with the help of a proprietary model of assessment using the publicly available data of companies on disclosure. The composite score is the sum of three weighted sub-scores: Environmental factor 35 per cent, Social factors 25 per cent, Governance factors 40 per cent, a construction has the effect of demonstrating a philosophy of assessment that is governance-centric. The scores have two functions, firstly to allow financial institutions and corporate managers to monitor and compare the related risks in the sustainability areas, and secondly to provide the capital-market participants with information to make more qualified decisions on how to allocate their assets. It is necessary to mention, though, that this means that ESG scores provided by various rating agencies may vary significantly due to the divergent approaches to calculating them, the underlying data, and the weighting systems-a phenomenon that academics referred to as ESG rating disagreement and whose implications are significant with respect to the interpretation and comparison of scores (Berg, Koelbel and Rigobon, 2022).

The research at hand embraces a CRISIL ESG Scores as the major independent variable in order to scientifically examine the effect of ESG performance on corporate financial performance. The study limits the analytical sample to firms included in the Nifty 200 index which makes it concentrate on large and mid-capitalisation companies which contribute a significant portion of the market capitalisation and economic output in India. It is hoped that the findings would bring up practical findings to three different groups of audiences: corporate executives aiming to develop an evidence-based business case on why and how businesses can invest in sustainability; institutional investors

considering enhancing sustainability practices as long-term value creation; and regulators aiming at ensuring the robustness of ESG disclosure architecture in line with Indian Net Zero 2070 commitment.

2. REVIEW OF LITERATURE

The academic discussion on the question of whether a better ESG performance is a better financial performance is based on two underlying but conflicting theoretical perspectives. The Stakeholder Theory, developed by Freeman (1984), suggests that the ultimate duty of a corporation goes far beyond merely maximising the returns to the equity holders; the whole point is to create a sustainable value to all parties in the company that have an interest in it, such as employees, customers, suppliers, regulators, local communities and indeed the wider society. In this context, a good ESG score acts as a verifiable indicator of effective stakeholder custodianship, strong brand trust, and less vulnerability to regulatory penalties and an assortment of reputational losses. Accordingly, companies with a high score on ESG measures will have higher accounting profitability (quantified by ROA or ROE), high market value (as represented by the Q of Tobin) and progress in business sustainability over the long term (Freeman, 1984). The agency theory shares the same complementary view, where good governance structures alleviate the principal-agent conflicts that give rise to short-termism in management, as it provides the management with incentives that will appropriately benefit the long-term interests of both shareholders and other interested parties (Jensen and Meckling, 1976). In contrast, Friedman (1970), Trade-Off Theory claims that the highest level of fiduciary duty of management is to maximise shareholder wealth. In this light, channelling corporate funds to ESG activities is a way of paying an agency cost: it is a way of increasing operating expenses and reducing profit margins on a short-term basis. It is anticipated that the Trade-Off stance implies that there will be a negative correlation between ESG intensity and financial performance at least in the short run (Friedman, 1970). The current body of empirical research can be loosely grouped into three groups: research studies reporting a positive nexus, those reporting weak or inconclusive findings, and those rejecting the existence of a negative relationship.

2.1 Positive Link Between ESG Scores and Firm Performance

There is a big amount of empirical support that helps the Stakeholder Theory prove to be correct in that the better the scores of ESG, the better the financial performance of a company. The synthesis that may be the most extensive is that by Friede et al. (2015), where more than 2,200 primary studies were reviewed, and the authors concluded that approximately ninety per cent of them found a non-negative association between ESG engagement and corporate financial performance- a remarkable convergence of results across geography and methods. With the help of the cross-sectional international sample of 1,720 businesses Aydoğmuş et al. (2022) managed to prove that the overall ESG composite score of a company has a positive and statistically significant correlation with both market valuation (Tobin Q) and accounting profitability (ROA), indicating that ESG investments do not only generate returns which can be quantified by market or accounting value metrics. Similarly, in a geographically oriented research of German-headquartered companies, Velte (2017) defined the presence of a substantial positive correlation between ESG performance and the Q factor of Tobin and ROA, which supports the argument that sustainability credentialing leads to improved durability and financial long-term outlook of a firm. Increasing the geographic coverage, Fatemi et al. (2018) revealed that the strength of ESG contributes to the firm value, and the ESG issue subtracts it, which can be seen as evidence of subtlety that the direction and the strength of the ESG impact are not uniform depending on the nature of the sustainability practices of a firm.

In the context of the current research, Indian evidence also leans similarly towards a positive evaluation. The analysis of CRISIL-rated companies by Sowmya and Mahesh (2024) has recorded significant positive ESG scores and net profit margins. A similar finding was made by Sinha Ray and Goel (2022) on a sample of BSE 100 companies: higher ESG scores over long periods of investment predicted material increases in ROA, ROE, and the Tobin Q-data, which is evidence that sustainability performance multiplies returns on financial benefit in the long term. On a larger scale, Zhao et al. (2018) discovered that excellent environmental practices of emerging firms in the market are linked to an extremely high market value, which is especially informative in the context of interpreting the dynamics of ESG in India.

2.2 Mixed Results Between ESG and Firm Performance

Although the positive evidence is heavy, there exists a congruent body of literature that cautions that the financial effect of ESG is not homogeneous and unanimous. Investigating the Nifty 100 companies, Deb et al. (2024) found a remarkable asymmetry in the effect of ESG on the market valuation (Tobin's Q) and accounting-based operational performance at the same time, suggesting that capital markets and standard financial reports depict an entirely different story of the value of ESG. Serafeim et al. (2023) found a similarly diverged result on a pillar level: in South Korea, governance improvements caused financial performance, environmental scores were negatively associated with the social scores, and the social scores were not significantly important. A study of Norwegian listed firms conducted by Giannopoulos (2022), along with ESG and Tobin Q positive correlation, established an association, but did not find a

significant effect on profitability indicators. A study by Atan et al. (2018) to understand the Malaysian companies found that, at short periods of time, there exists no statistically significant relationship between ROE and Tobin Q with the scores regarding ESG, showing that the financial advantage of ESG practice might take time to materialise. In line with this perception, engagement data presented by Dimson et al. (2015) showed that ESG improvements are only likely to yield quantifiable financial benefits after institutional investors start working with firms on the embedding of sustainability reforms- supporting the significance of governance mechanisms as an activation condition. Combined, these contradictory results confirm that the ESG performance relationship is probably moderated by situational factors such as the time period of study, industry framework, and the institutional environment quality of a nation.

The second hypothesis indicates that there exists a negative correlation between ESG and the performance of the firm. The third body of work is closer to the view of the shareholder-primacy approach that holds that ESG spending constitutes a waste of productive capital. A study by Brammer et al. (2006), which measured the performance of UK companies as the financial performance measured in market returns, made a contradiction, with companies scoring lower in social responsibility measures doing better in the market than the market overall, which questions the assumption of a financial dividend of responsible corporate behaviour. The authors made similar findings in their research on Latin American multinationals, with Duque-Grisales and Aguilera-Caracuel (2021) reporting a negative correlation between ESG scores and financial returns. The authors attribute these results to a number of factors, including the increasing costs of compliance and disclosure, the tradeoff in profitability that an investment occurring in the short term to achieve sustainability in practice, and the inefficiency that occurs when ESG initiatives adopted are performance-rather than strategy-based. Barnett and Salomon (2012) provide an additional refinement, showing in a non-linear manner that the correlation between social responsibility and profitability assumes a U-shape: companies on either end of the ESG rating scale, such as those with extremely low or high scores, are not significantly malpracticed in comparison to their peers in the middle range. They warn one against regarding ESG performance as a universally value-enhancing strategy; its financial value seems to be dependent upon the overall strategic choices of firms, industry-specific dynamics, and the quality of governance mechanisms.

3. STATEMENT OF PROBLEM

There is still a number of scholarly debates regarding the financial implications of Environmental, Social, and Governance (ESG) performance. Although the current research can analyse this relationship in low-income, developed economies (Velte, 2017; Giannopoulos, 2022), the evidence base is still disjointed and context-specific. In the younger marketplace- India being one of them- the strict empirical research remains immature and inconclusive. A lot of the available Indian literature focuses on extensive at large-cap indices like the Nifty 100 (Deb et al., 2024) and the financial impact of ESG performance on mid-cap firms remains unexplored. As financial performance can vary across large and mid-cap firms in a systematic way based on disparities in resource base, investor attention and maturity in governance, this gap can be considered a significant limitation to the present evidence base. Applying the broadening of the analysis to the Nifty 200, which covers both market capitalisation ranges, this piece of research offers a more valid and discriminating view of the ESG-performance relationship in the Indian business environment.

4. NEED FOR THE STUDY

Combined with increased regulatory pressures and increased sophistication of investors and the further internalisation of ESG standards into capital market decision-making, this suggests an excellent argument to formulate a fully empirical evaluation based on a wider sample of Indian firms. Companies in a variety of sectors and capitalisation bands, provided by the Nifty 200 universe, offer exactly that variety. This study is thus conducted with the aim of generating finer-grained information on both the financial applicability of the ESG performance in the Indian corporate context and also to contribute to the literature and empirical data on sustainable finance and firm performance.

5. OBJECTIVES OF THE STUDY

The paper will take an empirical research approach to determine the importance of the Environmental, Social, and Governance (ESG) performance in influencing the financial performance of companies that are listed on a stock market in the Nifty 200 index. The guiding questions of the study include:

1. To evaluate the correlation between Composite ESG scores and individual pillar scores and firm market valuation across the Nifty 200 companies.
2. To determine the correlation between Composite ESG scores and individual pillar scores against the profitability of firms in the Nifty 200 companies.

Market-based indicators are analysed using firm valuation, and the hypothesis is to identify the superior performance in relation to ESG, whether it has a translation into better investor perception and greater market-based valuation. Profitable performance of firms is evaluated using metrics based on accounting to determine whether ESG involvement works to improve financial efficiency and enhance operational returns.

6. HYPOTHESES OF THE STUDY

In a bid to operationalise the study goals, the following testable hypotheses are developed:

H1: There is a significant correlation between the firm valuation and Nifty 200 firms and the ESG scores.

H2: ESG scores have a significant relationship with the firm profitability of Nifty 200 companies.

7. RESEARCH METHODOLOGY

7.1 Sample Selection

The sample of the research is based on the companies that are listed on the Nifty 200 index of the National Stock Exchange of India. This index was chosen for a particular reason in that it contains both mega-cap and middle-cap firms with a broad spread of industries and hence provides a more holistic and representative cross-section of the Indian economy as compared to small-benchmark indices. To avoid the methodological bias that existed in the sample, the various players in the financial sector, such as commercial banks, insurance firms, and any other specialised financial service firm, were eliminated on a methodological basis. Capital structures, regulatory regimes and accounting practices of financial institutions can not be modelled using capital structures, regulatory regimes and accounting conventions of other corporate entities, and their inclusion would introduce structural variability, which can make their regression estimates biased. This pattern of exclusion can be compared to the strategy of similar ESG-performance reports like Deb and Friede et al. (2024 and 2015). Further, companies with missing ESG scores or non-persistent financial information over the timeframe under analysis were eliminated in order to maintain the quality of a balanced panel sample and avoid the estimation bias of unbalanced samples. On the whole, there were 138 non-financial companies in the final analytical sample after all the exclusion criteria were applied.

7.2 Period of Study

The sample timeframe included is three years, which is not too ancient to be indicative of the present nature of ESG disclosure practices in India, but at the same time not too long to draw the short to medium-term financial ramifications of sustainability engagement. Balancing the panel output gave rise to the balanced panel consisting of 138 firms, which are observed as firms with three consecutive years of financial performance, in which 414 firm-year observations are obtained.

7.3 Data Sources

The research will solely use the secondary data based on well-known and reputable repositories. The ESG scores were obtained using the publicly available rating disclosures of CRISIL, whereas the financial data at the firm level, that is, the variables on the balance sheet and income statement, were obtained using a popular Indian corporate financial data provider, CMIE ProwessIQ.

7.4 Variables Used

Two dependent variables are used to operationalise financial performance with complementary variables. The former is the Q of Tobin, which is expressed as a division of the aggregate capitalisation by the sum total of the liabilities and the total assets in the form of a market indicator of perception by the investors, projected potential growth and how the market is implicitly valuing the intangible assets of a firm. The second is Return on Assets (ROA), which is computed as net income/ total assets, indicating the effectiveness of management in transforming the asset base of the company into earnings. The integration of the external market cues by the implementation of both measures together accompanies the study with the internal operation performance, which is in line with existing studies on ESG, such as Nollet et al. (2016), Velte (2017), and Aydoğmuş et al. (2022). The idea of having Tobin Q as a market value proxy has a long tradition in the financial literature; it reflects future confidence on the part of investors that would not otherwise be captured in accounting measures (Chung and Pruitt, 1994).

The main independent variable is settled on ESG performance, which is operationalised as CRISIL ESG scores. To control firm-specific factors that might be confounding the ESG performance relationship, two control variables included are firm size, which is the natural logarithm of total assets, and financial leverage, which is a ratio between total debt and total assets. The two controls are included according to previous precedent in the literature on ESG-performance, such as Nollet et al. (2016), Velte (2017), Stock and Watson (2015), Atan et al. (2019), Giannopoulos et al. (2022), and Naeem et al. (2022).

7.5 Methodology

The panel data regression analysis has been used as the main estimation framework that will be utilised in analysing the relationship between ESG and performance. Pearson correlation analysis was first of all undertaken to indicate the direction and strength of bivariate relationships between ESG scores, control variables and performance measures, as well as to determine any potential multicollinearity issue. Variance Inflation Factor (VIF) of each explanatory variable was calculated; those aspects that fell within the acceptable ranges proved that multicollinearity does not significantly

impair the accuracy of the estimated regression coefficients. The Durbin-Watson statistic was used to determine serial correlation in the residuals. The composite ESG score is built mathematically on the pillar scores; thus, its independent variables would be on both a composite and a pillar level, which would have become incredibly multicollinear. In this regard, multiple regression specifications were to be estimated on each ESG measure.

The Hausman specification test was used to select a fixed and a random effects panel estimators between the fixed and random estimates. This test is used to test whether there is unobserved firm-specific heterogeneity that is correlated with explanatory variables - a situation that, in that case, makes the random-effects estimator inconsistent. The fixed-effects model is especially suitable in the context of firm-level panel research when there are enduring, time-invariant, firm-specific features, such as ownership structure, identity of a founder, or industry niche, which might affect ESG behaviour and financial results at the same time (Hsiao, 2014). After a choice of models, panel regression analysis has been run to test the hypotheses formulated.

The general model specification is:

$$\text{Firm performance} = \beta_0 + \beta_1 X_1 + \beta_2 \text{Size} + \beta_3 \text{Leverage} + e_i$$

Where Firm Performance represents either Tobin's Q or ROA; X_1 denotes the relevant ESG Score; and e_i is the error term.

To address the identified multicollinearity, eight separate regression models were estimated in total. For Tobin's Q, four models were run:

$$\text{Tobin's Q} = \beta_0 + \beta_1 \text{ESG Composite score} + \beta_2 \text{Size} + \beta_3 \text{Leverage} + e_i$$

$$\text{Tobin's Q} = \beta_0 + \beta_1 \text{E Score} + \beta_2 \text{Size} + \beta_3 \text{Leverage} + e_i$$

$$\text{Tobin's Q} = \beta_0 + \beta_1 \text{S Score} + \beta_2 \text{Size} + \beta_3 \text{Leverage} + e_i$$

$$\text{Tobin's Q} = \beta_0 + \beta_1 \text{G Score} + \beta_2 \text{Size} + \beta_3 \text{Leverage} + e_i$$

For ROA, a parallel set of four models was estimated:

$$\text{ROA} = \beta_0 + \beta_1 \text{ESG Composite score} + \beta_2 \text{Size} + \beta_3 \text{Leverage} + e_i$$

$$\text{ROA} = \beta_0 + \beta_1 \text{E Score} + \beta_2 \text{Size} + \beta_3 \text{Leverage} + e_i$$

$$\text{ROA} = \beta_0 + \beta_1 \text{S Score} + \beta_2 \text{Size} + \beta_3 \text{Leverage} + e_i$$

$$\text{ROA} = \beta_0 + \beta_1 \text{G Score} + \beta_2 \text{Size} + \beta_3 \text{Leverage} + e_i$$

This modelling architecture permits the study to disentangle the aggregate influence of ESG performance from the distinct contributions of its three constituent pillars—Environmental, Social, and Governance—on both firm valuation and profitability, while preserving econometric rigour throughout.

8. RESULTS AND INTERPRETATION

8.1 Preliminary Test Results

The initial description of the interdependencies between all the model variables is given by the Pearson correlation matrix (Table 1). The ESG composite score is shown to be extremely correlated with the Environmental pillar score ($r = 0.924$) and with the Social ($r = 0.625$) and Governance ($r = 0.712$) pillar scores, moderate-to-strongly correlated, which is an instant indication of multicollinearity and thus the need to use independent regression models with each ESG variable. Composite ESG score in the performance indicators level has a moderate positive relationship with the Tobin Q ($r = 0.459$), which is in line with the argument that increased sustainability engagement is identified and valued by the equity markets. In sharp contrast, the correlation between ESG and ROA is insignificant ($r = 0.027$), which is an initial suggestion that the relations between ESG performance and accounting profitability are low or hidden by specific aspects of a company that cannot be observed in a single-bivariate model.

Table 1: Correlation Results

	TOBINSQ	ROA	ESG	E	S	G	SIZE	LEVERAGE
TOBINSQ	1							
ROA	0.421	1						
ESG	0.159	0.027	1					
E	0.122	-0.005	0.924	1				
S	0.001	0.009	0.625	0.519	1			
G	0.216	0.065	0.700	0.484	0.672	1		
SIZE	-0.583	-0.064	0.238	0.460	0.180	0.243	1	
LEVERAGE	-0.012	0.037	0.183	0.153	0.058	0.288	0.296	1

Table 2: Hausman test Results

DEPENDENT VARIABLE	TEST RESULTS	Chi-Square	p-VALUE
TOBINS Q	FIXED EFFECTS	72.652	4.543e-6**
ROA	FIXED EFFECTS	23.437	2.236e-16**

Table 3 :Regression Stargazer table for Tobin's Q

	TOBINS Q			
ESG	0.009 (0.005)			
E		0.008 (0.005)		
S			0.008 (0.003)	
G				0.011 (0.007)
SIZE	-6.254 (0.937)	-6.254 (0.400)	-6.254 (0.916)	-6.254 (0.748)
LEVERAGE	1.723 (0.061)	1.720 (0.061)	1.808 (0.043)	1.721 (0.056)

The findings of the Hausman test, in Table 2, give conclusive support for the fixed-effects specification in both dependent variables. In the case of Tobin Q, the chi-square test value stands at 72.652 (p-value = 4.543e-6) and in the case of ROA, the value is 23.437 (p-value = 2.236e-16), which is significantly above the traditional significance level. These findings prove that unobserved firm-specific characteristics exhibit systemic correlation with the explanatory variables and therefore the fixed-effects estimator is the correct and consistent option.

8.2 Regression Results

The prepared fixed-effects regression estimates of the Q of Tobin, which appear in the Stargazer-formatted Table 3, show that there is a steady and statistically significant positive correlation between the performance on the ESG and the market value of firms. The coefficient of the composite ESG score is 0.009 (p = 0.005), which means that a one-unit shift in ESG score correlates with an increase in the Q of Tobin by 0.009 units, controlling for the size and leverage of firms. The positive correlation is maintained in all three scores of individual pillars, with each also achieving a statistically significant value. It is worth noting that the Governance pillar has the highest coefficient, meaning that increasing the quality of governance will have a more substantial positive effect on market value than increasing environmental or social performance. The evidence presented in all four models of valuation is strong and has a positive direction: ESG performance of a company at the composite level as well as at the pillar level is systematically related to the firm value as perceived by equity investors.

Stargazer Table 4 demonstrates the outcome of the ROA in a significantly different way. The composite ESG score has a negative and statistically significant coefficient (−0.039, p = 0.046), which indicates that a rise in ESG score is related to a decrease in ROA, other determinants being constant. This result is an indication that ESG-related spending, whether experienced by environmental compliance, workforce market programs, or governance infrastructure, is accompanied by real costs in the short run that squeeze accounting returns. Looking at the estimates at the pillar level, the Environmental score (−0.053, p = 0.056) and the Social score (−0.007, p = 0.010) are both negative and significant, which confirms the interpretation that investment in these areas does not translate to an increase in earnings within

the short term. However, the Governance pillar is also a substantial exception: its coefficient is positive and significant (0.026, $p = 0.001$), which means that stronger governance arrangements can introduce a certain positive impact on the operational efficiency and, consequently, the profitability, even in the near future.

Table 4 :Regression Stargazer table for ROA

	ROA			
ESG	-0.039 (0.046)			
E		-0.053 (0.056)		
S			-0.007 (0.010)	
G				0.002 (0.001)
SIZE	-2.874 (0.355)	-2.514 (0.203)	-3.036 (0.537)	-3.100 (0.625)
LEVERAGE	-0.605 (0.458)	-0.623 (0.491)	-0.629 (0.440)	-0.666 (0.438)

When the results are synthesised together in both dimensions of performance, the image becomes subtle and multifaceted. ESG performance provides a reliable increase in the valuation of financial markets of a firm, but it also imposes a burden on short-run profitability, except when the governance measure of performance is considered, which is consistently positive on both measures of performance. These results indicate that though ESG investment might not lead to direct earnings increase, the reputational, risk-reduction and signalling benefits it brings about are significant to justify the valuation premium for investors.

9. FINDINGS OF THE STUDY

This regression analysis provides differentiated and policy-relevant information based on the measurement of firm performance on the prism of capital markets or traditional accounting measures. On the market valuation components, the composite ESG score and separate pillar scores show a positive and statistically significant correlation with the Q of Tobin, indicating the presence of an ESG performance in the price of assets by treasury shareholders. The outcome is in line with the argument interpretation that sustainability engagement acts as a plausible informer of reduced systemic risk and a better long-run growth opportunity- a characteristic that investors will happily compensate through greater valuation.

The composite ESG score has a negative, significant correlation with ROA on the profitability side, and this trend is repeated on the Environmental and Social pillar levels. This is only broken by the Governance pillar, which has a positive and significant relationship with ROA, meaning that the effective governance mechanisms create activities of operational efficiencies resulting in the improvement of earnings in the near term, despite transitional costs that other ESG investments involve. The results are in line with previous evidence in similar emerging market settings, such as Deb et al. (2024) and Giannopoulos (2022), both of which report contradictory ESG impacts across performance dimensions. However, they are quite different when compared with the findings of Parwani et al. (2024), the cross-sectional survey of 344 Indian companies, which provides more desirable results, which, perhaps, can be explained by sampling structure, timeframes, and research design differences. Altogether, the results of the study place the ESG performance in the Indian context as both a market indication and an operational process, each of which has a net financial impact that varies significantly based on the performance criterion considered and the ESG pillar under consideration.

10. SUGGESTIONS

1. First, corporate leaders need to rethink ESG investment as a long-term strategic investment business, not a short-term cost centre. Even during times when returns based on accounting are temporarily lacking, capital markets always price positively on valuation premiums, ESG performance, and long-run evidence that patience is rewarded.
2. Disproportionate attention towards governance strengthening should be scanned by both corporate managers and policymakers. In all model preferences, it is only the governance that yields stable, worthy traits of both market value and profitability in the short term, and thus, the governance reforms can be considered the most predictable value-accretive aspect of the ESG agenda.
3. Regulatory bodies can also think of the development of specific financial incentives (e.g., tax breaks, or subsidised green-finance institutions or even grant-based support programmes) to make companies bear the upfront expenses of environmental compliance and social responsibility programmes, ensuring that the shift to genuine ESG embrace accelerates.

11. CONCLUSION

This paper gives a constrained empirical evaluation of the connection between ESG performance and the financial results of the NIFTY 200 corporations in India. These findings indicate a unique and subtle ESG paradox of working in the Indian corporate environment: the greater the ESG rating of the firm, the greater its valuation, being perceived as lower-risk, better-managed, and more long-term sustainable, but at the same time, it bears the higher operating expenses in the short term, leading to the temporary compression of accounting profits. There is one exception, which is important, and this is the governance: a better standard of governance generates better returns in both markets and operations, and as such, it is the only aspect of ESG performance that is profitable in both time periods and both metrics.

Because India is developing a Net Zero 2070 agenda, the concept of ESG performance has evidently transitioned out of the sphere of voluntary philanthropy to the capacity of a competitive positioning and market-value driver. Costs of high sustainability standards are short-term in nature, more than offset over the long-term by the compounding value of enhanced reputation of the institution, reduced vulnerability to regulatory and reputational risks, and the market premium to which investors would give well-managed and forward-looking firms. The facts here could provide a strong argument on why ESG factors should be strategically introduced in Indian corporate decision-making processes, not as a form of compliance, but as a determinant of the long-term value of the firm

12. SCOPE FOR FURTHER RESEARCH

There are a number of avenues that can be taken with regard to the current research. To start with, longer longitudinal panels would help the researchers to test the hypothesis whether these adverse effects of the negative short-run profitability findings recorded in this research would diminish or turn the negative side as ESG investments mature and start bearing income. Second, generalising these findings to the wider population of firms listed on indices other than the Nifty 200, or using cross-country comparisons with other emerging markets, would help test the generalisability of these results and shed light on how the institutional context may mediate the ESG performance relationship. Third, future research can also explore causal processes increasingly in detail, such as by probing the exact channels through which good governance is converted into improvements in operational efficiency, or by researching how adjustments in ESG scores in connection with significant regulatory changes translate into changes in the valuations of firms. Since the issue of inconsistency in ESG ratings in providers is recorded (Berg, Koelbel & Rigobon, 2022), future research in India would also benefit by triangulating CRISIL scores against alternative ESG ratings to establish how well the results would hold up to measurement choice.

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