

Does ESG affect firm performance : A study with reference to select Indian companies

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Abstract

In modern times, the significance of sustainability and ESG considerations have increased for stakeholders, who now factor them into their valuable decisions. The primary object of this paper is to find out the connection between ESG and firm performance, specifically in terms of profitability, capital structure, and cost of capital. We selected NSE 500 companies for our study. For this analysis, static panel data model has been used. We have observed a positive link with ROCE whereas, ESG has a considerable adverse effect on WACC and DER. Firms that disclose ESG information boost their reputation additionally, bolster investor confidence, leading to a competitive advantage.

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Introduction

Sustainability is a leading concept in worldwide business organizations; most business organizations consider it an ingredient in their activities. Currently, most listed companies have shifted from focusing on short-term profit maximization to prioritizing long-term sustainability. The world knows the clarification of sustainability from a

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report, "Our Common Future," released by the UN Brundtland Commission in 1987. Various stakeholders, such as shareholders, customers, suppliers, employees, and investors, increasingly focus on ESG scores before making valuable decisions [1].

In the dynamic business world, all stakeholders are increasing their heavy attention on ESG-related issues. Nowadays companies need to publish sustainability reports along with annual reports. The study shows effect of sustainability reporting on economic health of Indian companies [2]. In today's corporate world, sustainability is a crucial component/issue. ESG score is a key measurement of a firm's sustainability level [3]. Since 2009, the GOI introduced some activities to align sustainability activities into business model in Indian companies. Extensive research highlighted the effect of sustainability on various organizational decisions, such as investment, finance, and dividend decisions [4]. The integration of ESG factors into financial decision-making has attracted the attention of research scholars, policymakers, and managers. An adverse association of ESG on CFP has been found [5]. The result indicates that Indian firms do not derive any financial benefits from sustainable investment. Most researchers focus on developed countries for their studies, while a few academicians have tried to find the linkage between ESG and financial health in emerging countries. A positive alignment of ESG performance with financial outcomes have been shown in several studies. [6-7] Whereas a few researchers and academicians showed an adverse impact of ESG on economic performance [8-9]. ESG factors affect financial performance and a firm's financial decisions. Capital structure is a critical choice for every companies [10]. Paper [11] showed that overall ESG scores don't have any impact on capital structure of Indonesian companies. Among Indian firms, an unfavorable influence of ESG performance has been marked on debt-equity ratio [12].

The mixture of debt and equity financing depicts the primary financing decision of a firm. A study revealed the relevance of funding decision in the operations of Indian companies [13]. They considered 919 firms for the period 2010-2019 and revealed a negative correlation, suggesting that a higher degree of transparency is prevalent in ESG reporting among the companies.

Furthermore, a reduction in the cost of debt financing leads to more availability of borrowed capital. Empirical evidence illustrates the consequence of ESG disclosure on companies' usage of debt for future investments [14]. They also analyzed and revealed that higher ESG disclosure correlates with higher firm value. the importance of ESG

performance on Indian firms was analyzed in a study [15]. Paper [16] showed the relationship between ESG, firm valuation, and debt financing.

Research Gap

Most studies concentrate on the impact of ESG factors on the monetary outcomes of the companies. However, the results are inconclusive: some studies indicate a direct correlation, while others exhibit a negative or no impact. Therefore, more comprehensive research is needed to examine the association among ESG, financial performance, and financial positions.

In addition, a very few studies examining the relationships among ESG, the cost of capital, and capital structure in the Indian market. Despite the significance of these elements in financial decision-making, limited research has investigated the impact of ESG in this specific context. Thus, a clear chance has been recognised to evaluate the relationships among ESG, the cost of capital, and capital structure in India.

Research Questions

Based on the research gaps, the following set of questions will be addressed in this study:

1. How does the overall ESG score affect the cost of capital?
2. Is there any relationship between ESG and capital structure? How are they related?
3. Is there any interdependence of ESG on profitability?

Objectives of the study:

The study aims to:

1. Examine the nexus between ESG score and cost of capital.
2. How ESG score helps to construct capital structure.
3. Do ESG score influence profitability.

Database and methodology:

For the current study, the top 500 companies listing in the NSE were selected based on market capitalization. Then, the companies under the banking and insurance sectors were eliminated. Several companies were omitted because they didn't have ESG data for the time period considered

for analysis. Lastly, NSE-listed 120 companies were selected for the study. The period covered by this study is 12 years, from 2011 to 2022. For this study, we have aimed to figure out the post-global-financial-crisis period. Here, Static panel model is the main methodology for our analysis.

We imply following regression model for the analysis:

$$\text{Model 1: } WACC_{it} = \beta_0 + \beta_1 ESG_{it} + \beta_2 FSZ_{it} + \beta_3 AGR_{it} + \beta_4 FLEV_{it} + \varepsilon_{it}$$

$$\text{Model 2: } DER_{it} = \beta_0 + \beta_1 ESG_{it} + \beta_2 FSZ_{it} + \beta_3 AGR_{it} + \beta_4 FLEV_{it} + \varepsilon_{it}$$

$$\text{Model 3: } ROCE_{it} = \beta_0 + \beta_1 ESG_{it} + \beta_2 FSZ_{it} + \beta_3 AGR_{it} + \beta_4 FLEV_{it} + \varepsilon_{it}$$

Where, β_0 = constant, β_1 to β_4 = co efficient of the explanatory variables
Where, WACC= weighted average cost of capital, ESG= Environmental, Social, Governance score, FSZ= Firm size, AGR= Asset Growth, DER= Debt Ratio, ROCE= Return on Capital Employed, FLEV = Financial leverage and ε_{it} is the error term.

Hypotheses of the study:

H1: There is a significant contrary association between WACC and the ESG Score of a company.

H2: There is a significant favourable nexus between DER and the ESG Score of a company.

H3: There is a direct positive linkage between ROCE and the ESG Score of a company.

Variables of the study:

WACC = Cost of Equity * Equity / (Debt + Equity) + Cost of Debt * Debt / (Debt + Equity) * (1-t)

DER = Total Debt / TA

ROCE = (EBIT / Total Asset) * 100

ESG Score = Bloomberg database

FSZ = Natural Logarithm of TA

AGR = $(TA_t - TA_{t-1}) / TA_{t-1}$

FLEV = EBIT / EBT

Major findings of the study:

According to descriptive statistics, average ESG score is 35.86, indicating that non-mandatory ESG disclosure was moderate within the analytical period. The average value of DER is 0.25, indicating that Indian firms have a lower debt-to-equity ratio. Based on Pearson's Correlation matrix, the ESG Score positively associated with profitability (ROCE) and a negatively linkage with WACC and DER.

To check Heteroskedasticity, White's General test showed that the p-value is less than 0.05, indicating heteroskedasticity; therefore, the standard errors are made robust. An assessment of Multicollinearity test confirms that no serious multicollinearity problem exists.

After completing the diagnostic tests, the panel data regression model is run. However, in our study, the regression analysis results confirms that **the Fixed Effect Model** is significant.

The outcome of *Model 1* explored that the fixed-effect model is appropriate for the regression analysis. The results further imply a statistically significant unfavourable nexus between WACC and ESG at the 1% level (-0.049). This hints at a higher ESG score correlation with a lower WACC. Firms with sustainable business practices, such as minimizing carbon and greenhouse gas emissions across their supply chains, will likely attract more investment from individuals and institutions at lower interest rates. Furthermore, borrowers are more inclined to lend to these firms.

Asset growth also shows a statistically inverse association with WACC at the 1% level (-4.078). As per stakeholder theory, firms that prioritize meeting the expectations of stakeholders are positioned to generate greater economic returns in the future [17]. The stakeholder theory demonstrates that the more responsible a corporation's actions are, leading to a minimising financing cost. WACC consists of two components: the Cost of Debt and Equity. Thus, when sustainable operations are maintained, equity shareholders' focus is not on returns but on the firm's image and goodwill, which would provide long-term benefits to them. So, in this case, their expectation would also not be very high, leading to a minimum equity financing cost. Thus, the WACC will be low if the firm boost strong ESG performance.

The outcomes of *Model 2* depicts that the fixed-effect model is appropriate for the regression analysis. Strong inverse relationship has been found between the debt ratio and the ESG Score, with statistical significance at the 1% level. Empirical evidence supports positive and

negative relationships between the debt ratio and ESG. Firm size exhibits among the control variables, a statistically significant unfavourable association with the debt ratio. Authors in the paper [18] identified that larger firms are more motivated to obtain equity capital from financial markets. A higher ESG Score informs that sustainable business has better stakeholder engagement and better insights in governance.

The outcomes of *Model 3* reveal a statistically robust link between firm size and ROCE. ROCE provides insights into how well a firm utilizes its capital to generate profit. The empirical findings imply a favourable nexus between ROCE and ESG at a 5% significance level. This signals that firms adhering to sustainable operations are more favoured by stakeholders, leading to increased profitability. A higher ROCE implies that the firm is well-positioned to profit from its investment opportunities. Consequently, strong ESG scores firms are likely to achieve greater ROCE. The more a firm engages in sustainable practices related to environmental issues and governance factors, the greater its potential for generating revenue from capital. This aligns with stakeholder theory. The effective stakeholder management leads to positive environmental outcomes, which, in turn, can give the firm a competitive advantage over its rivals and improve performance [19].

Conclusion

Corporate sustainability disclosure requirements have recently become crucial [20]. Our study intended to inspect the association between the overall ESG Score and the economic activities of firms, including profitability, cost of capital, and capital structure. Theoretically, we find a solid linkage between sustainability and financial performance. In this study, the ESG Score has been treated as an indicator to determine firms' sustainability. Under stakeholder perspective, firms engaged in sustainable business operations support stakeholders' interests, thereby going beyond prioritizing profit. The results demonstrate a clear favourable connection ROCE and ESG at the 95% confidence level. Our study further indicates that a significant negative relationship exists between WACC and ESG at the 1% significance level. This outcome aligns with the WACC, which further states that ESG-related firms tend to incorporate environmental and social risks into their strategies, thereby reducing overall systematic risk. The stakeholder theory further suggests that firms that meet their stakeholders' expectations are positioned to enhance their corporate reputation by incorporating sustainable policies, thus reducing future risk

and uncertainty. Furthermore, we find a significant adverse connection between DER and ESG at the 99% confidence level. Sustainable firms prefer to use more equity because it reduces information asymmetry.

The study's results underscore the pivotal role of stakeholders in the success of ESG applications. Firms that disclose ESG information enhance their reputation and image and bolster investor confidence, leading to a competitive advantage. These findings guide policymakers and stakeholders, highlighting their integral role in executing ESG applications and the potential benefits they can reap.

This paper has a few limitations. We have not yet considered the time lag in this study, but we have examined several pieces of empirical evidence. However, future studies could incorporate a time lag to take a broader perspective and account for the time needed to evaluate ESG activities. It is also essential to conduct a qualitative analysis, as it can provide valuable insights and a different understanding of the concept. Furthermore, future studies could use other tools and techniques for economic performance measurement, such as Tobin's Q and Return on Assets (ROA), to examine their effect on business sustainability.

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