

THE RELATIONSHIP BETWEEN ESG PRACTICES AND FINANCIAL PERFORMANCE OF INDIAN BASIC MATERIALS MANUFACTURER COMPANIES

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Abstract

In India, nowadays companies are moving from short-term goals of profit maximization to long-term sustainable ESG (environmental, social, and governance) goals. Has become a dominant source of corporate risk and profit and may affect the company's financial performance. This study explains the effect of environmental, social, and governance (ESG) practices on a company's financial performance in India. This study uses a sample of Indian Basic material manufacturing companies from 2016 to 2020. A Panel data regression method was carried out to evaluate possible links between ESG Practices as determined by using a database of Thomson Reuters and accounting and market-based measures of financial performance (Return on Assets and Tobin's Q). Findings show that ESG Practices have an unfavourable relationship with company's financial performance

Keywords: ESG, corporate risk, financial performance, Accounting and market based

1. INTRODUCTION

Several important policy developments have occurred in the Indian regulatory landscape over the last decade. The Enterprises Act was updated in 2013, and section 135 of the Act now mandates qualifying companies to spend 2% of their net yearly earnings on CSR initiatives (Companies Act, 2013). From the perspective of investors, the emphasis on sustainable and responsible investing techniques has progressively increased. Environmental, Social, and Governance (ESG) oriented portfolio selection strategies have increasingly acquired appeal among investors, owing mostly to the participation of entities such as the United Nations Environment Program Finance Initiative.

The ESG Index was launched in India through a collaboration between CRISIL and NSE India. The goal of this index is to quantify exposure to assets that fulfil sustainability-investment criteria. For developed economies, there is a growing amount of literature based on ESG. The current condition of ESG practices and their influence on enterprises in developing economies has not been well explored. The purpose of this article is to investigate the impact of ESG variables on the performance of Indian public limited firms.

The phrase environmental, social, and governance (hereafter, ESG) gained attention when it was first established by the United Nation's Principles of Responsible Financial (UNPRI), and today it has become quite popular among the investment fraternity. This word is interchangeably used with SRI or Responsible investment and sustainable investing (Eccles and Viviers 2011). (Eccles and Viviers 2011). A tremendous rise may be witnessed in ESG integration as a sustainable approach internationally. According to a study issued by Global

Sustainable Investment Review (GSIR) 2018, ESG integration has expanded by 69 percent over the previous 2 years, to \$17.5 trillion in assets. This rise clearly illustrates that asset managers and investors are integrating the material ESG elements into investment decision-making (Ho and Wong 2003; Bourghelle et al. 2009; Friede et al. 2015; Jemel-Fornetty et al. 2011). Stakeholders are also interested in the openness of material ESG information of firms together with financial information (Siew et al. 2013a). Consequently, corporations into integrate ESG considerations in their business operations in fulfilling asset managers' and investors' expectations throughout the world (Eccles and Serafeim 2011; Lokuwaduge and Heenetigala 2017). (Eccles and Serafeim 2011; Lokuwaduge and Heenetigala 2017). Furthermore, ESG has rapidly acquired attention of researchers and academics in recent years. Rigorous efforts have been undertaken to study the financial and non-financial determinants of environmental, social and corporate governance by scholars (Balatbat et al. 2012; Dangwal and Sharma 2014; Farooq et al. 2015; Brooks and Oikonomou 2018; Aboud and Diab 2018). (Balatbat et al. 2012; Dangwal and Sharma 2014; Farooq et al. 2015; Brooks and Oikonomou 2018; Aboud and Diab 2018). There has been substantial study on environment, corporate social responsibility and corporate governance separately internationally, but less effort have been made to analyse ESG performance of Indian business sector despite their high global competitiveness. Although the corporate sector has grown significantly over the years, data suggest that environmental and social performance remains poor. The Indian government's efforts to encourage sustainable development, including its emphasis on ESG among listed corporations, are also positive. The National Voluntary Guidelines on Social, Environmental, and Economic Responsibility of Business (NVG-SEE) were issued by the Ministry of Corporate Affairs in July 2011 and feature nine key concepts. As a result, the study's significance rests in gaining a better understanding of the motives for environmental and social performance, as well as corporate governance.

The relationship between financial performance and how much information Indian firms reveal on their environmental, social, and corporate governance practices (ESG). The ESG performance of the sample firms was analysed using content analysis from their annual and sustainability reports. The ESG disclosure index is created with the aid of the GRI framework for this aim. Financial and market performance has a positive and significant relationship with the level of ESG disclosure, whereas FII's stake and leverage have a negative and significant relationship with the level of ESG disclosure after statistically controlling for the effects of a firm's size and the industry type of the firms; results based on the formulated model indicated that financial and market performance have a positive and significant relationship with the level of ESG disclosure, whereas FIIs stake and leverage have a negative and significant relationship.

The environmental, social, and governance (ESG) score has evolved as a critical pillar of CSR for the formulation of long-term policies that affect multinational corporations' financial performance (FP) (Eccles and Serafeim 2013). Indeed, the relationship between ESG performance and FP has been extensively researched (Brammer et al. 2006; Friede et al. 2015; Lee et al. 2016; Lo and Sheu 2007; McWilliams and Siegel 2000; Nollet et al. 2016; Ortas et al. 2015; Surroca et al. 2010; Van Beurden and Gössling 2008; Waddock and Graves

1997), with mixed While some studies have found that investing in ESG activities improves FP (Cahan et al. 2015; Eccles et al. 2014; Fatemi et al. 2015; Filbeck et al. 2009; Lo and Sheu 2007; Rodriguez-Fernandez 2016; Wang and Sarkis 2017), others have found negative effects (Cahan et al. 2015; Eccles et al. 2014; Fatemi et al. 2015; (Branco and Rodrigues 2008; Brammer et al. 2006; Lee et al. 2009).

The ESG factor, which includes environmental, social, and governance considerations, shows a company's non-financial performance. The United Nations Principles for Responsible Investment encourage investors to consider environmental, social, and governance (ESG) problems when evaluating a company's performance. Furthermore, investors, creditors, the government, and other environmental authorities are increasingly concerned about firms' contributions to sustainable development.

The epidemic and its global consequences are having a significant impact on how businesses function. According to ESG, today's investors are more concerned about a company's environmental, social, and governance practices, and they want to strike a balance between financial return and shared and inclusive ideals.

ESG (environmental, social, and governance) is a major value criterion for every company. It can tell you everything that balance sheets couldn't. As global catastrophes such as climate change materialize as natural disasters and other socio-ecological effects, profit-making ventures' asset interests are threatened. Instead of focusing just on revenues, economies and firms must be judged on their environmental, social, and governance standards. In addition, the concept of success being defined solely in terms of financial gain is changing internationally. The global investment community is, of course, the trigger point.

2. REVIEW OF LITERATURE

Most of the previous studies show a positive relationship between sustainability and financial performance. However, some studies show negative or no relation. All the previous studies reviewed are summarized in the following table.

Author	Period of study	Country of study	Methods used	Data	Result
Mahoney & Roberts	1996-1999	Canada	Panel data models	298	Positive
Balatbat et al.	2008-2010	Australia	multi-linear regression analysis	208	mixed
Cormier and Magnan	2009	Canada	Descriptive statistics	633	positive
Siewa et al.	2007-2011	Australia	Descriptive statistics	683	Negative
Trumpf & Guenther	2008-2012	Germany	theoretical concept of the TMGT effect	2361	non-linear
Rodriguez-Fernandez	2009	Spain	multivariate regression models	121	positive
Stellner et al.	2006-2015	Germany	baseline regression of Model	872	mixed
Dr. A. A. Azeez	2010-2012	Sri Lanka	Descriptive statistics	100	Negatively
Minutolo et al.	2009-2015	US	Descriptive analysis	467	Positive
Valente & Atkinson	2007-2017	UN	holistic approach	6	Positive
Yawika & Handayani	2015-2017	Indonesia	multiple regression analysis	387	Mixed
Grisales & Caracuel	2011-2015	Brazil, Chile, Colombia, Mexico and Peru	Panel data regression	104	Negative
Yin et al.	2015-2016	China	Descriptive Analysis	676	Positive
Kima and Oh	2010-2015	India	panel data regressions	214	non linear
Elif Akben-Selcuk	2014-2018	Turkey	Descriptive statistics	70	
RRajesh et al	2014-2018	India	grey incidence analysis	39	Positive
Rubino and Napoli	2013-2017	Italy	multiple OLS regression analysis	83	Positive
Zhang et al.	2009-2016	China	Benefit-cost analysis	8364	Negative
Al-ahdala et al.	2009-2016	India	independent t-test	53	Negative
Gulzar et al.	2014-2018	India	Descriptive statistics	11	Negative
Jha & Rangarajan	2008-2018	India	statistical analysis	500	Negative

3. PURPOSE OF THE STUDY

Although researchers have used many approaches to examine the various outcomes of ESG implementations, but still there are limited studies about motives or the benefits for which firm continue to invest in ESG activities. The purpose of this study to find the impact of ESG on company's performance totally and individually. The sample contain 100 Indian companies, shall be recognized as sustainable promoters for ESG values. The objective is developing in collaboration with the Indian companies in order to be relevant and useful to the actors in financial sector, this study is mainly focused on the objective: To find the impact of ESG score on financial performance of Indian companies.

4. RESEARCH METHODOLOGY

To begin, we establish our models by describing ESG and financial performance as variables, as well as the challenges inherent in measuring them. Second, we discuss critical control variables. Thirdly, we describe our dataset and the models we employ to examine the relationship between financial performance and ESG.

4.1 Dataset

When we collect information about firms, we begin with the ESG scores. The scores are derived from Thomson Reuters' Asset4 database as three different scores for each corporation. The E, S, and G scores are distributed on a scale ranging from 0 to 100, with 0 being the lowest and 100 representing the highest. First, we retrieve scores for all 1047 Indian enterprises in the database. Second, we download scores for all 357 enterprises in the database that deal with basic materials (a global sample). Finally, after conducting a cross-reference search in Excel, we arrived at a total of 100 Indian basic materials manufacturers that comprise our sample.

4.2 Result and Analysis

The following section summarizes and analyses our findings. We conclude this part by summarizing & evaluating our hypotheses. The results of the OLS regressions are presented in this section. Following that, the results of the Wu-Hausman test for endogenous variables were described, as well as the instruments utilized in this investigation. Finally, the closing part will discuss whether or not the empirical analysis results support the hypotheses.

4.3 OLS regression results

The findings of the regression models will be discussed in this section. To begin, we will discuss the OLS regression findings. Due to the possibility of endogenous variables, the Wu-Hausman test is used. A two-stage least squares estimation technique is employed when endogenous variables are discovered to obtain consistent estimators.

4.4 Relation between ESG and financial performance

As shown in Tables 4.1 when size, age, R&D, risk, leverage, subsector, and year are all controlled for, an enhanced ESG score has a negative influence on financial performance as assessed by Tobin's Q and ROA.

4.5 Quantitative Model

The most straightforward approach is to estimate a pooled regression when dealing with panel data. All data is estimated using an ordinary least squares (OLS) estimator (Brooks, 2014). OLS assumes that the variables' average values and their associations are stable throughout time and across all cross-sectional units in the sample (Brooks, 2014). In general, the variables exhibit little variation within each object, particularly for organizations that have just been tracking ESG scores for a few years. As a result, our model begins with an OLS estimator (see model) (1).

$$\text{Tobin's } q_{it} = \beta_0 + \beta_1 \text{ESG}_{it} + \beta_2 \log \text{Size}_{it} + \beta_3 \log \text{Age}_{it} + \beta_4 \text{R\&D}_{it} + \beta_5 \text{Risk}_{it} + \beta_6 \text{Leverage}_{it} + \beta_7 \text{Year}_{it} + \varepsilon_{it} \quad (1)$$

Where: Tobin's q_{it} = Tobin's q

i = indication for a specific firm

t = indication for a specific fiscal year

EGS = EGS score

Size = Logarithm of Market Capitalization

Age = Logarithm of Years since Corporation

R and D= R and D intensity

Risk = Standard Deviation of Weekly Price Return

Leverage = Debt to Total Assets

Year = Year Dummy Variable

4.5.1 Aggregated ESG performance

In table 4.1 we present the results we obtain when we run model (1):

$$\text{Tobin's } q_{it} = \beta_0 + \beta_1 \text{ESG}_{it} + \beta_2 \log \text{Size}_{it} + \beta_3 \log \text{Age}_{it} + \beta_4 \text{Risk}_{it} + \beta_5 \text{Leverage}_{it} + \beta_6 \text{Year}_{it} + \varepsilon_{it}$$

Table: 4.1 Impact of ESG (OLS)

Independent Variables	(1) Tobin's Q	(2) ROA
ESG _t-1	-.0056**	-.0463***
	-0.0015	-0.0212
Size	.1031**	1.212***
	-0.0302	-0.3162
Age	-0.01	0.0354
	-0.0321	-0.3519
R&D	.0410**	0.0515
	-0.0213	-0.2104
Risk	0.0004	0.0314
	-0.0065	-0.0532
Leverage	-.0042*	-.1059***
	-0.0035	-0.0109
Constant	-0.3253	-6.5031
	-1.013	-9.0109
Subsector fixed effects	Yes	Yes
Year fixed effects	Yes	Yes
N	457	452
R-squared	0.5031	0.4032
Legend: *p<.1; **p<.05; ***p<.01		

When model (1) is tested, we observe a statistically significant negative influence of aggregated ESG score on both Tobin's Q and ROA (see table 4.1). The data reveal that increasing the ESG score by one unit decreases Tobin's q by 0.006 and ROA by 0.05. Our findings are consistent with those of several other studies that have examined the relationship between ESG and financial performance, including Hart and Ahuja (1996), Worrell et al. (1995), Cordeiro and Sarkis (1997), and Sarkis and Cordeiro (2001), all of which find evidence of a negative relationship between ESG and financial performance. The observed negative effect is small compared to the effect of the control variables, implying that ESG has less effect on financial performance than business size, R&D expenditure, and leverage. This is consistent with earlier research, which also confirms the relatively minimal influence of ESG.

In general, the link between our control variables and financial success is consistent with earlier research. As expected, size has a favourable effect on financial performance measures in all regressions. R&D has a substantial positive effect on Tobin's Q but has a negligible effect on ROA. This is consistent with earlier research, which indicates a better correlation between R&D intensity and market-based financial measures than accounting-based financial measures. When regressing return on assets, we include R&D as a control variable, even though it is negligible, because the theoretical framework supports it.

Additionally, leverage has a statistically significant negative influence on return on assets but does not affect Tobin's q, consistent with prior research (Hart and Ahuja, 1996). Surprisingly, neither risk nor age has a statistically significant effect on Tobin's Q or ROA. This may signal

that the models continue to exhibit omitted variable bias and endogeneity, which should be considered a model limitation.

Over five years, from 2016 to 2020, we collect panel data. We believe this is a reasonable period to collect sufficient data points but is also sufficiently limited to allow for time-dependent generalizations, consistent with Carroll's arguments (1979).

5. CONCLUSION AND FUTURE POSSIBILITIES

Through a series of multiple regressions, we examine the association between ESG performance and financial performance for enterprises in the Indian industry. Consistent with past empirical studies, we discover a negative connection. As with prior scholars, we are unable to determine whether the underlying relationship between ESG and financial success is linear or non-linear. This shows that the relationship is more complex than we initially thought and that additional research is necessary to elucidate it.

Given the negative link, we may conclude that the financial benefits of ESG operations in Indian enterprises do not outweigh the expenses. This suggests that businesses in these industries lack the necessary circumstances to realize the full financial benefits of ESG. Improved stakeholder interactions are critical to the business case for ESG because they result in competitive advantages in sectors such as the consumer, employer, and financial markets. However, ESG initiatives do not imply enhanced stakeholder relationships in the European basic materials industry. Due to the fact that ESG operations do not align with the enterprises' character as a result of the unsustainable nature of their company, stakeholders do not view ESG initiatives as credible. As a result, stakeholder relationships are unaffected, and the anticipated benefit to financial performance does not materialize. Simultaneously, enterprises are obliged to endure ESG expenses as a result of tight regulation, resulting in a net negative impact.

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