

# The Contribution of Sustainable Practices to Financial Performance and Firm Value in Companies in Developing Countries: The Case of India

Akhil Gupta, Phillip Pardo, Malcolm Cooper  
Ritsumeikan Asia Pacific University, Beppu, Japan

**Abstract:** Current growth and development conditions around the world emphasize the need for sustainable development. To be sustainable, an economy must prioritize the interests of all stakeholders over maximizing profits while limiting impacts on the planet's natural resources and environment. The primary focus of this research is an examination of the impact of sustainability practices (ESG scores) on the financial performance (Tobin's Q) and firm value (Market-to-Book ratio) of businesses operating in developing nations such as India. Data were collected from the Thomson Reuters Eikon database of 89 public listed companies in India from 2015 to 2020. The findings support a positive relationship between Tobin's Q and Market-to-book ratio and the combined ESG scores and the individual social pillar scores. This result implies that an investment in social activities and improving overall ESG scores can improve financial efficiency and increase the market value of companies. In contrast, individual environmental and governance scores have a weak relationship (negative with the Tobin's Q and Market-to-book ratio variable), demonstrating that investment in these activities may lead to a lower level of financial efficiency and a decrease in market value.

*Keywords:* National stock exchange (NSE), Sustainable development, Tobin's Q, ESG scores, MB ratio, Sustainability practices, Corporate sustainability.

## RESEARCH BACKGROUND

The traditional perspective of business performance emphasizes numerous key aspects of economic and trade operations, including liquidity, productivity, solvency, and methods for producing shareholder returns, including financial, economic, and value-added activities (Petrescu, 2008). According to Milton Friedman's (2007) monetarist approach to performance, the ultimate social obligation of a business is to maximize economic gains for shareholders. Economic and financial outcomes are the primary objectives for a business's existence in this method. However, due to the complexity of the economic environment, it has been discovered that the financial models used to evaluate business performance have some limits and are insufficient to accurately portray an organization's overall credible performance.

In recent years, the relationship between an organization's accountable and socially responsible behaviour (ESG) and its financial performance (FP) has been intensively researched and discussed. Corporate responsibility (CR) is a generic term that refers to the ways in which businesses contribute to

sustainability. It involves all stakeholders in society and is based on the concept of the "triple bottom line" to emphasize the importance of three aspects of company management: personnel (social), revenue (economic), and the environment. By focusing on social and environmental performance, firms may foster positive relationships with their stakeholders, boosting morale and assuring the long-term viability of businesses (United Nations Environment Programme, 1998). Corporate sustainability transforms firms into responsible enterprises that balance various societal concerns like social and environmental issues to sustain the demands of future generations (Hahn & Figge, 2011). Market globalization and the growing need from stakeholders for firms to demonstrate social obligation and transparency resulted in the incorporation of sustainable practices of social, environment, and economic indicators. These actions are viewed as a means of strengthening a business's reputation and image (Adam, 2002; Oh, Hong, & Hwang, 2017). They are regarded as a crucial issue for firms in light of societal expectations (Porter & Kramer, 2006). Establishing long-term policies which have an effect on the CFP of multinational organizations through the accomplishment of ESG ratings as part of corporate social responsibility (CSR) strategies (Grisales & Caracuel, 2019; Eccles & Serafeim, 2013). ESG ratings are typically included in annual sustainability reports as part of a company's sustainability assessment (CSA), demonstrating the company's motivations and commitment to sustainable development. In this integrated reporting, the environmental (E), social (S), and governance (G) components may be included as a stand-alone report or as a portion of a larger yearly report. ESG actions taken by a firm because ESG metrics are derived by assigning equal importance to all three attributes (Humphrey et al., 2012).

Developing long-term strategies that impact the financial performance of international firms has become a crucial component of corporate social responsibility (CSR) and ESG is one important component (Eccles & Serafeim, 2013; Grisales & Caracuel, 2019). Not only for politicians, but also for the general public and business investors, ESG policies have grown in importance over the last decade (Garcia et al., 2017). Organizations that use ESG indicators have seen long-term improvements in productivity, access to capital, corporate reputation, savings in cost, customer loyalty, and innovative capabilities (Graafland & Smid, 2013; Ferrero-Ferrero et al., 2016). Businesses can be driven to attain sustainability by monetary incentives, leading to a long and stable operational and management structure, and also a favorable public view of their products and services (Arrive et al., 2019). According to Alareeni & Hamdan's (2020) research, investors have a firm grasp on ESG scores and CFP.

In certain studies, CSR and environmental sustainability (ESG) are seen as indicators of sustainability performance, whereas Tobin's Q is viewed as a key financial indicator in others (Eliwa et al., 2019). Additional study reveals that ESG policies affecting performance of a firm's value positively (Fatemi et al., 2018; Yoon et al., 2018). However, other studies reveal that ESG metrics have a negative influence on a business's performance growth (Lee et al., 2009). There

is inconsistency in the findings that can be drawn from the current body of information regarding the connection between business success and initiatives geared toward sustainability (Barnett et al., 2012; Song et al., 2017; Jayachandaran et al., 2013). According to a 2008 KPMG poll, developed countries are more likely to report on sustainability than underdeveloped countries so that they can accomplish the aim of the 2016 United Nations Economic and Social Council's (ECOSOC) "2030 Agenda for Sustainable Development." To promote greater socially responsible investing in emerging economies such as India, critical public information regarding ESG indexes is essential. The challenge that socially responsible investors have in significantly expanding sustainable groups in rapidly rising nations such as India would be intriguing to discover (Tyagi, 2012). India is a fast growing country that accounts for around one-sixth of the world's population (Singh et al., 2013), and contributes 7.04 percent of global GDP.

## **India**

India is a significant developing country that aspires to rapid development. There are specific challenges and opportunities in each of the three main pillars that underpin sustainable development structures in India (Von Hauff & Veling, 2018). Several factors contribute to India's increasing worldwide importance: the Indian diaspora, financial interest, strong market interest, English-speaking staff, stable political conditions, and encouraging government efforts. In addition, the Indian diaspora's global presence, entrepreneurial enthusiasm and culture, strong investor confidence, and stable political conditions all contribute to India's overall success. Strengths like these are helping the country take on an increasingly prominent position in the global community (Agrawal et al. 2017). Evaluating the ways in which companies, investors, the public at large, and stakeholders have begun to take ESG factors into consideration in determining the company's potential for profit and strategy for long-term wealth growth is one of the most essential aspects of building the modern Indian context (Tripathi & Bhandari, 2015). India has a long history of corporate social responsibility (CSR), which is founded on its community value system, but there is still much to be done (Jain & Winner, 2016). Businesses are encouraging the Indian government to participate in CSR programs to enhance and improve the image publicly and lessen the negative impact that their operations have on the local community and the environment (Sharma, 2013).

## **RESEARCH QUESTION, OBJECTIVES, LIMITATIONS AND SCOPE**

In consideration of the above, the purpose of this study is to acquire a deeper comprehension of the influence that sustainable business practices such as environmental, social, and governance (ESG) have on the economic performance and value of Indian companies. The findings of this study will contribute to our understanding of the impact of sustainability principles, specifically ESG scores singly and in combination, on a company's financial success. Second, this will allow for advice to Indian businesses on how to increase their firm's value and

financial performance through sustainable practices. Additionally, this study will give information to external parties and advice to investors in Indian enterprises regarding the influence of sustainability on the market value of the companies. As a result, the following research questions are posed:

1. To what extent does the sustainability performance score influence the financial performance of Indian companies?
2. To what extent does the sustainability performance score influence the firm' value of the Indian companies?

### ***Sustainability Practice and ESG***

According to Bassen & Kovacs (2008), ESG metrics are the sustainability practices that are used to quantify aspects of a company's performance that are not captured by financial data. As a result, financial statements are unable to convey the importance of a company's image and other assets in a global economy built on knowledge, which are becoming more and more critical in today's world. Non-financial information on a company's environmental, social, and corporate governance performance is therefore now included in ESG indicators. It is possible for them to evaluate a company's management capabilities and improve their risk mitigation capabilities (Galbreath, 2013).

Data on ESG issues are vital, particularly for management purposes. Managers require complete and current information about their global operations. As a result, management will be able to alter its business plans appropriately. Analysts are motivated to give more accurate estimates because of this inherent motivation. To meet or surpass market expectations, management can use this knowledge to make better decisions (Greenwald, 2010). High-ESG-performing firms know their sectors' long-term strategic concerns inside and out and have CEOs who can manage long-term ambitions. For their long-term viability, these businesses make critical long-term decisions (Greenwald, 2010).

### ***ESG, Financial performance and Firm value***

According to previous studies, both ESG traits and financial performance have been found to be linked. There is a connection between sustainability policies and financial performance (FP), highlighting the importance of increasing concern of stakeholders towards the environmental problems (Friede et al., 2015). If this is not recognized conflicts, increased costs, and decreased FP might result from a lack of respect for environmental stakeholders. On the other hand, other studies indicate that a greater FP is associated with increased expenditures and diminished marginal net benefits. There is thus a strong relationship between organizational environmental performance, profitability, and environmental activities. Economic growth, CO2 emissions, energy usage, high population, and open trade all go hand in hand.

## **Sustainability in India**

Developing nations like India, moving in the direction of a more open and transparent corporate governance framework, require disclosure changes. India has made substantial reforms in recent years to improve governance processes and environmental and economic disclosures. India's Government which is towards the corporate affairs in the country issued the "National Voluntary Guidelines on Business's Social, Environmental, and Economic Responsibilities" in 2011. By preparing a Business Responsibility Report (BRR), listed companies are ensuring that their disclosures are as accurate as possible. Since the addition of GRI reporting in 2017, the ESG rankings have improved. According to the Companies Act, 2013, the regulation that companies spend 2% of their average net income of the last three years on socially responsible activities, which are linked to social action by enterprises is important in the Indian context (Nair & Bhattacharyya, 2019).

Significant progress in corporate governance was made by the *Companies Act* of 2013. It raised the bar for corporate governance, streamlining guidelines, and protecting the benefits of small stakeholders. India was one of the few countries to mandate sustainable practices investment, and its policy can serve as a model for other countries looking to adopt effective CSR programs. Clause 49 of the listing agreement specifies corporate governance requirements and procedures for Indian publicly traded companies. It was adopted by SEBI in 1999 and has been modified multiple times thereafter to ensure continued compliance. Clause 49, as amended in 2014, safeguards shareholders' interests by requiring accurate and timely disclosures. The adoption of standardized disclosure guidelines and the development of a more transparent SR have been beneficial to the ESG rating of Indian businesses.

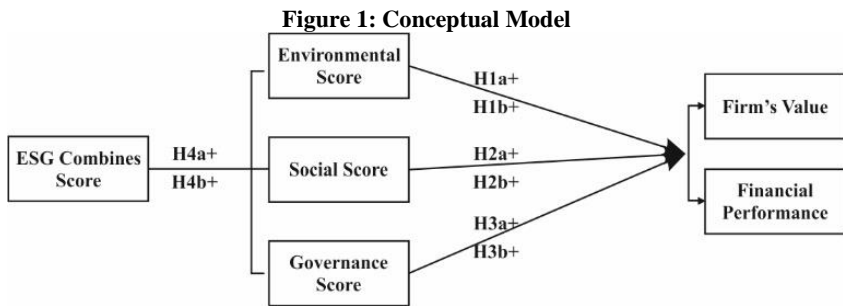
The environmental footprints and CSR initiatives of Indian corporations are made public on their websites however they typically focus mostly on the positive or neutral elements (Jain and Winner, 2016). In spite of the growing popularity of CSR reporting, only one-third of IT companies for example, disclose separately about their corporate social responsibilities on the internet, underperforming their abroad competitors by a substantial margin. When it comes to corporate governance and sustainability, Indian firms tend to focus on these issues in their annual reports, while supply chain management and other aspects of sustainability are rarely discussed (Jose and Saraf, 2013).

## **The Research Gap**

This discussion has concentrated on the connection between corporate social responsibility and financial performance because this is the goal that the vast majority of businesses have in mind when they make decisions on CSR (Cheng et al., 2016). A few studies indicate a negative correlation between financial performance and ESG rankings. But specific financial performance criteria studies have failed to establish a significant positive association between financial success and ESG ratings and this research gap is addressed by the

present study. Since there does not appear to be a clear pattern leading to this connection, extra research is required, therefore we make the following hypotheses about the structure of the relationship (Figure 1):

- Hypothesis H1a: Environment performance (E score) impact positively on the financial performance of the firms;
- Hypothesis H2a: Social performance (S score) impact positively on the financial performance of the firms ;
- Hypothesis H3a: Governance performance (G score) impact positively on the financial performance of the firms;
- Hypothesis H4a: ESG performance (ESG combined score) impact positively on the financial performance of firms in the modern business environment.



## Data Collection

The study data include panel data of the top companies listed on the stock exchange in India to test the contribution of sustainability scores on company financial performance and firm values. The period of this research was 6 years, taking data from 2015 to 2020. All of the material employed in this research was obtained from the Thomson Reuters Eikon database. It is used quite widely in academic research as it offers thorough information on the past and the present financial information since the 1950s. In addition to financial data, this database contains environmental, social, and governing (ESG) data on more than 5000 publicly traded companies globally. Thomson Reuters collects information on sustainability from a range of legitimate sources, including (a) CSR disclosure reports, (b) financial statements, (c) governance practices reports, (d) supplemental content, and (e) company websites. The ESG data available on this database range from 0 to 100 points for every financial year.

The final sample consists of 89 firms from India, from various industries with an adequate CSR and sustainability reporting structure and relevant ESG data. These include Financial (15 companies), Materials (11 companies), Healthcare (10 companies), Consumer Discretionary (9 companies), Consumer Staples (8 companies), Energy (8 companies), Industrials (8 companies), Information technology (6 companies), Utilities (6 companies), Communication services (4

companies) and Real estate (4 companies). The market capitalization of these 89 companies represents approximately 59% of India's total capitalization on the National Stock exchange (NSE).

### Model Specification

To accomplish the purpose of this study, the analysis examines the effects of four - combined ESG, environmental, social and governance scores which are continuous range from 0 (lowest) to 100 (highest), on the financial performance and firm value of the 89 companies. Financial performance is measured using Tobin's Q and firm value using the market-to-book ratio. For the analysis of this study, a multiple regression model - panel data regression analysis has been used to study the statistical correlation among the variables; this method of analysis has been frequently used in the previous studies (Jyoti & Khanna, 2021; Bell, Bryman, and Harley, 2019). In the panel data analysis model, the time series dataset changes individual elements over time can be tracked. In addition, it allows us to adapt for elements which can be useful for monitoring and to take individual variances into account (Baltagi, 2008). In line with the hypotheses, we constructed four regression equations for the following model parameters: dependent, independent and control variables. These equations explain the relationship between the variables:

$$\text{Tobin's } Q_{it} = \alpha + \beta_1 \text{ES}_{it} + \beta_2 \text{SS}_{it} + \beta_3 \text{GS}_{it} + \beta_4 \text{ROA}_{it} + \beta_5 \text{Lev}_{it} + \beta_6 \text{Size}_{it} + \varepsilon_{it} \quad (1)$$

$$\text{Tobin's } Q_{it} = \alpha + \beta_1 \text{ESG}_{it} + \beta_2 \text{ROA}_{it} + \beta_3 \text{Lev}_{it} + \beta_4 \text{Size}_{it} + \varepsilon_{it} \quad (2)$$

$$\text{MBit} = \alpha + \beta_1 \text{ES}_{it} + \beta_2 \text{SS}_{it} + \beta_3 \text{GS}_{it} + \beta_4 \text{ROA}_{it} + \beta_5 \text{Lev}_{it} + \beta_6 \text{Size}_{it} + \varepsilon_{it} \quad (3)$$

$$\text{MBit} = \alpha + \beta_1 \text{ESG}_{it} + \beta_2 \text{ROA}_{it} + \beta_3 \text{Lev}_{it} + \beta_4 \text{Size}_{it} + \varepsilon_{it} \quad (4)$$

Where: *i* refers to Indian companies; *t* refers to a year.

### Test for Multicollinearity and Descriptive statistics

To determine whether or not there is multicollinearity among independent variables, the Variance Inflation Factor (VIF) was applied (Hair et al., 2009). If the VIF is less than 5, there is no need to be concerned about multicollinearity (Akinwande et al., 2015). The value of VIF for each independent variable is less than 5. In all regression models, the variance inflation factor (VIF) was less than 5; hence the test revealed no multicollinearity issues.

## RESULTS

This research evaluated 89 public companies in India. Table 1 displays descriptive statistics, including average, median, min-max, standard deviation, and skewness for the variables. Statistics include data for the 89 companies for 5 to 6 years. The average market-to-book ratio is 4.55, ranging from 0.03 to 74.27. This indicates that most of the companies' stocks in India are overvalued and that

the actual market value of companies' assets differs from what is shown on their balance sheets. This high ratio is also attributable to companies' intangible assets, often excluded from book value. The average of Tobin's Q is 2.16, ranging from 0.01 to 24.69 and a standard deviation of 3.09. This indicates that the companies are overvalued means market value is more than the cost of its asset. The overall average score for the combined Environmental, Social and Governance pillars is 53.83. The average score for the social pillar is the highest, which comes at 59.40, followed by the average score for the governance pillar, which comes at 50.68. This means that the management of Indian companies prioritizes working in the best interest of their employees, community, betterment of their products and human rights. Compared to social and governance pillar scores, the environmental pillar received the least average score of 45.80, which indicates the management of companies is less focused on working on environmental-related factors. The pillar score range of sustainability related ESG is 0 as minimum and 100 as maximum. The minimum pillar scores of ESG are 0, 11.67 & 6.97, and the maximum pillar scores of ESG are 97.40, 96.56 and 96.48. These minimum and maximum differences demonstrate the significant differences between Indian companies in their sustainability performance. In terms of return on assets (ROA), the average number is 0.10, which is not bad and indicates that most of the companies evaluated are efficient in generating operational profit from their assets. Firm leverage has a minimum (maximum) value of 0.04 (3.07) and an average of 0.60. 13.20 is the average firm size measured by the natural logarithm of the total assets (firm size).

**Table 1. Descriptive Statistics**

Variable	MB	TQ	ES	SS	GS	ESGS	ROA	Lev	Size
N	524	524	524	524	524	524	524	524	524
Mean	4.55	2.16	45.80	59.40	50.68	53.83	0.10	0.60	13.20
Median	2.69	0.78	46.43	60.65	51.22	54.14	0.08	0.61	13.33
Minimum	0.03	0.01	0.00	11.67	6.97	9.19	-0.06	0.04	9.54
Maximum	74.27	24.69	97.40	96.56	96.48	92.28	0.66	3.07	17.55
Std. Deviation	6.67	3.09	23.84	20.09	22.28	16.28	0.09	0.27	1.48
Skewness	5.11	2.09	0.04	-0.25	0.08	-0.01	1.72	2.20	0.18
Kurtosis	37.78	11.94	-0.81	-0.82	-1.08	-0.48	4.44	16.87	-0.26

### ***Correlation Matrix***

Testing the robustness of the panel regression model was the initial step required to discover any potential endogenous variables. First, a correlation matrix was constructed for each of the analyzed components. The correlation coefficient calculates the degree of connection among two variables in terms of statistics, and there are value ranges that extend from +1 to -1. The correlation coefficient of the ESG composite score is positively connected with Tobin's Q (TQ) and market-to-book ratio (MB ratio) in the correlation analysis research. It is highly statistically significant with TQ, with a p-value of less than 0.01, and statistically significant with MB, with a p-value of less than 0.05. However, the correlation coefficient of ES with TQ is a weak but positive relationship and



almost significant at 0.05, with a p-value is 0.055. And ES shows a negative correlation relationship with MB and is insignificant where the p-value is greater than 0.05. The correlation coefficient of the SS is positively correlated with TQ and MB. It is highly statistically significant with TQ at 0.01, with the p-value ( $0.000 < 0.01$ ), and statistically significant with MB at 0.05, with the p-value ( $0.013 < 0.05$ ). The correlation coefficient of GS is positively correlated with the financial and firm variables TQ and MB. It is highly statistically significant with TQ and MB at 0.01, where the p-value is less than 0.01.

### ***Panel Data***

A panel data regression analysis is performed to test the relationship between the individual variables of the Environmental pillar score (ES), Social pillar score (SS) and Governance pillar score (GS) and the dependent variable Tobin's Q (TQ), controlled by the variables including return on assets ratio (ROA), leverage ratio (Lev) and firm size (Table 2). The R-squared value is 0.46375, demonstrating the study's predictors can account for a variance of 46.38% in the dependent variable. This model uses individual scores ESG, ROA, lev, and size as study predictors. The coefficients of the ES and GS are negative and insignificant (ES = coefficient = -0.003,  $p > 0.05$ ; GS = coefficient = -0.001,  $p > 0.05$ ). This result does not support H1a and H3a that suggest that individual increases in ES and GS will increase the financial performance indicator, Tobin's Q. This outcome may have been caused by the high expenditure involved in environmental and good governance practices, particularly if the benefits arising from efficiency failed to cover the cost. In other words, Indian companies' only investment in environmental practices like (using renewable resources, innovation and reducing emissions) or governance practices like (sustainability reporting strategy and management structure) could be interpreted as additional financial expenses by the market, which cannot be recovered in a short period. This has a negative effect on the company's overall financial performance as a result. According to this viewpoint, the finding challenges the concept that environmental and governance disclosure displays a company's duty to its various stakeholder groups to get a competitive advantage over their competitors.

The coefficient of the SS is positive and highly significant (SS = coefficient = 0.007,  $p < 0.05$ ). This result supports H2a that an individual increase in SS will increase Tobin's Q's financial performance indicator. This outcome indicates that expenditure on social policies like (benefits to society by CSR and improving workforce conditions) helps the companies be more efficient. It has a positive effect on the company's overall financial performance. The coefficient of the ROA is positive, but Lev and size coefficients are negative, which shows a negative relationship between them and individual ESG scores. All control variables are highly statistically significant at  $p < 0.001$ .

**Table 2. Testing the Hypotheses**

<b>Research Objective</b>	RO 1. The purpose of this study is to acquire a deeper comprehension of the influence that sustainable business practices such as environmental, social, and governance (ESG) have on the economic performance and value of Irdian companies.		
<b>Methodology</b>	Research Model		Panel Data Regression
	Variables:	Independent	ES, GS, SS and ESGS
		Dependent	TQ and MB
		Control	ROA, Lev and Size
	<b>Hypothesis</b>		<b>Result</b>
<b>Hypothesis and Results</b>	<b>H1a</b> - E score affects positively on tobin's Q		Rejected
	<b>H2a</b> - S score affects positively on tobin's Q		Accepted
	<b>H3a</b> - G score affects positively on tobin's Q		Rejected
	<b>H4a</b> - ESG combined score affects positively on Tobin's Q		Accepted
	<b>H1b</b> - E score affects positively on MB ratio		Rejected
	<b>H2b</b> - S score affects positively on MB ratio		Accepted
	<b>H3b</b> - G score affects positively on MB ratio		Rejected
	<b>H4b</b> - ESG combined score affects positively on MB ratio		Accepted

## DISCUSSION

This study hypothesized that a company's financial performance and firm value could be improved by implementing sustainable practices. Successful implementation of sustainable practices attracts favorable responses from all stakeholders. However, the analysis conducted in this research only supports half of the hypothesis. For Hypothesis 1a and 1b, we expect a positive relationship with the financial indicator, Tobin's Q and firm value, and the Market-to-Book ratio with the individual environmental pillar score. The study results find this not valid for both hypotheses. The result is consistent with Hart et al. (1996); Jyoti & Khanna (2021), where the financial indicator of firms and individual environment indicator has a negative relationship.

According to Lioui et al. (2012) and So (2021), companies adopting and investing in environmentally friendly sustainable practices have increased the companies' financial performance and firm value. However, effective environmental management practices require additional financial, technological, and human resources, resulting in significant expenses and causing a decrease in companies' financial performance (Zeng et al., 2011). The extra financial cost of adopting environmentally friendly methods leads to a decrease in the company's

profitability, which is not favored by the shareholders in the market, leading to a decrease in the company's market value (Klassen & McLaughlin, 1996; Lorraine & Collison, 2004). Another reason is that companies' primary objective is to maximize the shareholders' wealth; however, these extra costs reduce the companies' profits in the short term and are increased only in the long term (Fatemi et al., 2013). Furthermore, environmental-related policy disclosures are not as crucial in emerging economies or developing countries compared in developed countries (McHenry, 2016).

For Hypothesis 2a and 2b, we expect a positive relationship with the financial indicator, Tobin's Q and firm value indicator, and Market-to-Book ratio with the individual social pillar score. The study results find this valid for both hypotheses. Individual social pillar score has a positive relationship with the independent variables in the regression analysis and this was statistically significant. The result is consistent with Qiu, Shaukat, & Tharyan (2016); Sinclair et al., (2001); and Hart (1995), where the financial performance and firm value of companies are related to the implementation and revealing of the social practices to various stakeholders. According to Nair & Bhattacharyya (2019), social practices have a positive impact on the financial performance of Indian companies, and Kostovetsky et al. (2014) and Manchiraju et al. (2017) support the view that the market value of companies is positively related to their social responsibility practices.

For Hypothesis 3a and 3b, we expect a positive relationship with the financial indicator, Tobin's Q and firm value, and the Market-to-Book ratio with the individual governance pillar score. The study results showed though that this was not valid for both hypotheses. The result is consistent with Jyoti & Khanna, 2021; Beltratti et al. (2012); Peni et al. (2012), where the financial indicator of firms and individual governance indicator have a negative relationship. Further, according to Orlitzky et al. (2003), no causal relationship exists between the companies' financial performance and the governance measure criteria. Other studies by Jo & Harjoto (2011), Jensen & Meckling (1976), and Aboud & Diab (2018) show a positive relationship between the governance score and firm value. Governance factors like board size, gender equality, outside director independence, director expertise and competence are crucial in measuring the governance score (Dragomir et al., 2021).

For Hypothesis 4a and 4b, we expect a positive relationship with the financial indicator, Tobin's Q and firm value indicator, and Market-to-Book ratio with the combined ESG score. The study results showed that this was valid for both hypotheses. The combined ESG pillar score has a positive relationship with the independent variables in regression analysis but is not significant. The result is consistent with Alareeni et al. (2020), Sharma & Thukral (2015), Fatemi et al. (2018), Waddock & Graves (1997), and Yoon et al. (2018), where the financial performance and firm value of companies are positively related to the implementation and disclosure of the ESG practices to various stakeholders. According to Orlitzky (2013) there is no relationship between ESG practices and

disclosure with the firm financial performance and market value. However, according to Krzus (2011), following sustainable practices by the companies helps the management in better decision making. Increasing transparency and ethical practices help in increasing the companies' reputation and, thus, create competitive advantage (Steyn, 2014).

## **Research Implications and Conclusions**

This study considered individual and combined ESG scores to study the impact of sustainable practices on companies' financial performance and firm value in developing countries like India. The study has various implications which are helpful to both academicians and researchers in the academic context and to policymakers and investors in the practical context. Sustainable practices scores are vital elements and critical indicators that affect the firm's profits and value in the market and enable the organizations to have an advantage over their competitors in the market (Lourenco et al., 2012). The empirical results of our research have a positive correlation with ESG combined scores.

Further, the research findings on the impact of individual ESG scores are helpful studying its impact on the companies in India. The research findings are crucial to the management of companies, investors, and stakeholders in making better managerial and investment decisions by increasing their knowledge of the impact of sustainable practices on their businesses. It will also be helpful to policymakers in creating different policies by studying the impact of the individual ESG scores. This paper provides policymakers with recommendations on how to provide businesses with various incentives depending on their investments in various environmental, social, and governance (ESG) dimensions to increase the firm's financial performance and total value. In this case, an increase in ESG scores does not likely result in improved financial performance. If that happens firms will no longer find it advantageous to invest in programs that promote sustainability in the future.

## ***Limitations***

As a result of the sample population being chosen and precise data being available, the study has intrinsic limitations. First, we examined publicly traded companies whose ESG ratings were readily accessible in the Thomson Reuters Eikon database. Publicly traded companies are considered for the research, and there are no private firms on the list. Second, since only Indian companies were evaluated, this study might need to be broadened to include enterprises from other emerging economies and more developed nations. This would permit comparisons between the findings of the Indian study and those of studies conducted in other developed nations. Various regression approaches were used to investigate the relationship. In the future, when energy security, financial feasibility, and the value of a corporation are all considered path analysis could be used to evaluate the route and strength of connections between variables.

In conclusion, the research findings indicate a favorable relationship between the combined score of Environment, Sustainability, and Governance (ESG) with financial performance and firm value. The primary objective of this research was to examine how ESG actions and disclosures affect business performance and value in developing nations such as India. Since most studies on the subject have been conducted in developed nations, a lack of research in an Asian environment was partially responsible for this. This study was also motivated by a desire to make a substantial contribution to the ongoing debate over whether ESG performance has a good or detrimental impact on the financial performance of Indian enterprises. India's importance among emerging nations makes it a fascinating subject for academic study. Although the overall results are positive, however the effect of the individual scores of the Environment and Governance pillar showed a contrasting view compared to the companies of developed nations. Therefore, a substantial amount of effort is required in sustainability reporting to accurately quantify the sustainable practices of businesses, which can be reflected in their ESG scores.

## REFERENCES

- About, A., & Diab, A. (2018). The impact of social, environmental, and corporate governance disclosures on firm value: Evidence from Egypt. *Journal of Accounting in Emerging Economies* 8(4):442–458.
- Adams, C.A. (2002). Internal organizational factors influencing corporate social and ethical reporting: Beyond current theorising. *Accounting, Auditing & Accountability Journal* 15:223–250.
- Adams, C. (2017). *Understanding integrated reporting: the concise guide to integrated thinking and the future of corporate reporting*. New York: Routledge.
- Agrawal N, Banda M, Marshall A, Mehrotra N & Patrao C (2017). How India can be essential to the global ecosystem economy. *Strategic Leadership* 45(4):33–39.
- Alareeni, B. A. & Hamdan, A. (2020). ESG impact on performance of US S&P 500-listed firms. *Corporate Governance. The International Journal of Business in Society* 20(7):1409–1428
- Arrive, T.J., Feng, M., Yan, Y., and Chege, S.M. (2019). The involvement of telecom industry in the road to corporate sustainability and corporate social responsibility commitment. *Corporate Social Responsibility and Environmental Management* 26(1):152–158.
- Baltagi, B.H. (2008). Forecasting with panel data. *Journal of Forecasting* 27:153–173.
- Barnett, M.L. & Salomon, R.M. (2012). Does it pay to be really good? Addressing the shape of the relationship between social and financial performance. *Strategic Management Journal* 33:1304–1320.
- Bassen, A. & Kovacs, A.M. (2008). Environmental, Social and governance key performance indicators from a capital market perspective. *Zeitschrift Für Wirtschaft-Und Unternehmensethik* 9(2):182–193.
- Bell, E., Bryman, A., & Harley, B. (2019). *Business Research Methods (5th ed.)*. NY: Oxford University Press.
- Beltratti, A. & Stulz, R.M. (2012). The credit crisis around the globe: why did some banks perform better? *Journal of Financial Economics* 105:1–17.
- FI (2022). What is the Market-to-Book Ratio (Price to Book)? *Corporate Finance Institute*. <https://corporatefinanceinstitute.com/resources/knowledge/valuation/market-to-book-ratio-price-book> [accessed on 10 April 2022].
- Dhanesh, G.S. (2015). Why corporate social responsibility? An analysis of drivers of CSR in India. *Management Communication Quarterly* 29(1):114–129.
- Eccles, R.G. & Serafeim, G. (2013). The performance frontier: Innovating for a sustainable strategy. *Harvard Business Review* 91:17–18.

- Eliwa, Y., Aboud, A. & Saleh, A. (2019). ESG practices and the cost of debt: Evidence from EU countries. *Critical Perspectives on Accounting* 102097.
- Fatemi, A., Glaum, M. & Kaiser, S. (2018). ESG performance and firm value: The moderating role of disclosure. *Global Financial Journal* 38:45–64.
- Ferrero-Ferrero, I., Fernandez-Izquierdo, M.Á. & Munoz-Torres, M.J. (2016). The effect of environmental, social and governance consistency on economic results, *Sustainability* 8(10):1005.
- Friede, G., Busch, T. & Bassen, A. (2015). ESG and financial performance: Aggregated evidence from more than 2000 empirical studies. *Journal of Sustainable Finance & Investment* 5(4):210-233.
- Friedman, M. (2007). *The social responsibility of business is to increase its profits. In Corporate ethics and corporate governance*, 173–178. Springer, Berlin, Heidelberg.
- Galbreath, J. (2013). ESG in focus: ‘The Australian evidence’. *Journal of Business Ethics*, 118(3):529–541.
- Garcia, A.S., Mendes-Da-Silva, W. & Orsato, R.J. (2017). “Sensitive industries produce better ESG performance: evidence from emerging markets.” *Journal of Cleaner Production* 150:135-147.
- Graafland, J.J. & Smid, H. (2013). *Competition, time horizon and corporate social performance*. Center Discussion Paper Series, No. 2013-060.
- Greenwald, C. (2010). *ESG and earnings performance*. ASSET4: Thomson Reuters study. New York: Thomson Reuters.
- Grisales, E. & Caracuel, J. (2019). Environmental, Social and Governance (ESG) Scores and Financial Performance of Multinationals: Moderating Effects of Geographic International Diversification and Financial Slack. *Journal of Business Ethics* 1–20.
- Hahn, T. & Figge, F. (2011). Beyond the Bounded Instrumentality in Current Corporate Sustainability Research: Toward an Inclusive Notion of Profitability. *Journal of Business Ethics* 104:325–345.
- Hair, J.F., Black, W.C., Babin, B.J. & Anderson, R.E. (2009). *Multivariate Data Analysis*. New York: Prentice Hall.
- Hak, T., Janouskova, S., Moldan, B. & Dahl, A.L. (2018). Closing the sustainability gap: 30 years after Our Common Future” society lacks meaningful stories and relevant indicators to make the right decisions and build public support. *Ecological Indicators* 87:193–195.
- Hart, S.L. & Ahuja, G. (1996). Does it pay to be green? An empirical examination of the relationship between emission reduction and firm performance. *Business Strategy Environment* 5(1):30–37.
- Jain, R. & Winner, L.H. (2016). CSR and sustainability reporting practices of top companies in India. *Corporate Communication International Journal* 21(1):36–55.
- Jayachandran, S., Kalaignanam, K. & Eilert, M. (2013). Product and environmental social performance: Varying effect on firm performance. *Strategic Management Journal* 34:1255–1264.
- Jensen, M. C. & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics* 3(4):305–360.
- Jo, H. & Harjoto, M. A. (2011). Corporate Governance and Firm Value: The Impact of Corporate Social Responsibility. *Journal of Business Ethics* 103(3):351–383.
- Jyoti, G., & Khanna, A. (2021). Does sustainability performance impact financial performance? Evidence from Indian service sector firms. *Sustainable Development* 1–10.
- Klassen, R.K. & McLaughlin, C.P. (1996). The impact of environmental management on firm performance. *Management Science* 42:1199–1214.
- Kostovetsky, L. & Di Giuli, A., (2014). Are red or blue companies more likely to go green? Politics and corporate social responsibility. *Journal of Financial Economics* 111(1):158–180.
- Lee, D.D., Faff, R.W. & Langfield-Smith, K. (2009). Revisiting the Vexing Question: Does Superior Corporate Social Performance Lead to Improved Financial Performance? *Australian Journal of Management* 34:21–49.
- Lioui, A. & Sharma, Z. (2012). Environmental corporate social responsibility and financial performance: Disentangling direct and indirect effects. *Ecological Economics* 78:100–111.

- Lorraine, N.H., Collison, D.J. & Power, D.M. (2004). An analysis of the stock market impact of environmental performance information. *Accounting Forum* 28:7–26.
- Lourenço, I.C., Branco, M.C., Curto, J.D. & Eugénio, T. (2012). How Does the Market Value Corporate Sustainability Performance? *Journal of Business Ethics* 108:417–428.
- Manchiraju, H. & Rajgopal, S. (2017). Does corporate social responsibility (CSR) create shareholder value? Evidence from the Indian Companies Act 2013. *Journal of Accounting Research* 55(5):1257–1300.
- Nair, A.K.S. & Bhattacharyya, S.S. (2019). Mandatory corporate social responsibility in India and its effect on corporate financial performance: Perspectives from institutional theory and resource-based view. *Business Strategy Development* 2: 106– 116
- Oh, S., Hong, A. & Hwang, J. (2017). An Analysis of CSR on Firm Financial Performance in Stakeholder Perspectives. *Sustainability* 9:1023.
- Orlitzky, M. (2013). Corporate social responsibility, noise, and stock market volatility. *Academy of Management Perspectives* 27(3):238-254.
- Peni, E. & Veaeheamaa, S. (2012). Did good corporate governance improve bank performance during the financial crisis? *Journal of Financial Services Research* 41,19-35.
- Petrescu, S. (2008). *Financial-accounting analysis and diagnosis*. Bucharest: CECCAR Publishing House.
- Porter, M. & Kramer, M. (2006). Strategy and society: The link between corporate social responsibility and competitive advantage. *Harvard Business Review* 84:78–92.
- Qiu, Y., Shaukat, A. & Tharyan, R. (2016). Environmental and social disclosures: Link with corporate financial performance. *British Accounting Review Journal* 48:102–116.
- Sharma, D. & Thukral, M.S. (2015). Do social, environmental and governance concerns reward value to firms? An investigation of BSE-500 listed firms, *IOSR Journal of Economics and Finance*, 23-28.
- Sharma, S. (2013). Corporate social responsibility in India-the Emerging Discourse & Concerns. *Indian Journal of Industrial Relations* 582– 596.
- Sinclair, D. C., Gray, R., Javad, M., & Power, (2001). Environmental and social disclosure and corporate characteristics: a research note and extension. *Journal of Business Finance and Accounting* 28(3-4):327-355
- Singh, A. K., Tewari, R., James, C., Devaraj, U., Ramachandran, P., D'souza, G. A. & Pradhan, A. K. (2013). Preface to First Issue of Heart India. *Heart India* 1(1):1.
- So, S. M. S. (2021). Corporate social responsibility and firm performance: Modified social contribution value per share. *Risk Governance and Control: Financial Markets and Institutions* 11(2):32– 46.
- Song, H., Zhao, C. & Zeng, J. (2017). Can environmental management improve financial performance: An empirical study of A-shares listed companies in China. *Journal of Cleaner Production* 141:1051–1056.
- Steyn, M. (2014). Organizational benefits and implementation challenges of mandatory integrated reporting: perspectives of senior executives at South African listed companies. *Sustainability Accounting, Management and Policy Journal* 5(4):476-503.
- Tripathi, V., & Bhandari, V. (2015). Socially responsible stocks: A boon for investors in India. *Journal of Advances in Management Research* 12(2):209–225.
- Tyagi, R. (2012). *Impact of corporate social responsibility on financial performance and competitiveness of business: A study of Indian firms*. Social Science Research Network.
- United Nations Economic and Social Council. (2016). *Report of the Inter-Agency and Expert Group on Sustainable Development Goal Indicators*. Washington DC: UNESC.
- Von Hauff, M. & Veling A., (2018). *India's need for a sustainability strategy: creating a stable and balanced development*. Ane Books Pvt. Limited, New Delhi.
- Waddock, S.A. & Graves, S.B., (1997). The corporate social performance - financial performance link. *Strategic Management Journal* 18:303–319.
- Yoon, B., Lee, J.H. & Byun, R. (2018). Does ESG performance enhance firm value? Evidence from Korea. *Sustainability* 10:3635.
- Zeng, S.X., Meng, X.H., Zeng, R.C., Tam, C.M., Tam, V.W.Y. & Jin, T. (2011). How environmental management driving forces affect the environmental and economic performance of SMEs: A study in the Northern China district. *Journal of Cleaner Production* 19(13):1426–1437.

## **ABOUT THE AUTHORS**

**Akhil Gupta** is in the Graduate School of Management at Ritsumeikan Asia Pacific University. His research focusses on the effect of ESG scores on companies' sustainable practices in determining financial performance and the value of the firm. His work concentrates on developing countries, with special reference to India. He obtained his undergraduate degree at the University of Delhi, India.

**Phillip Pardo** is Emeritus Professor of Accounting, Graduate School of Management, Ritsumeikan Asia Pacific University (APU) in Japan. His research and teaching covers Innovation and Virtuous Leadership in Accounting, and ESG as applied to Financial Reporting as well as Business Analytics, Sentiment Mining, Valuation of CGM Reviews and Customer Relationship Management (CRM). He has also worked in academic administration as Vice Rector and Associate Dean and has lectured at various universities across the world. He has published in the International Journal of Leisure and Tourism Marketing, Journal of Hospitality & Tourism, Middle East Journal of Management as well producing many book chapters. His books "Mastery-Altruism-Passion Model: A Return to Knightly Virtues in Business" and "L'Engagement Professionnel" are available on Amazon.

**Emeritus Professor Dr. Malcolm Cooper** taught at Ritsumeikan Asia Pacific University from 2003 to 2022. He was the first Vice President for International Relations and Research at APU (2005-2012), and he now teaches a range of tourism and hospitality management, academic writing, and business management subjects at several universities across the world. He has also been both a private consultant in urban and regional planning and an education consultant to the Governments of New Zealand, Sri Lanka, China, and Vietnam. His research interests include health and wellness tourism, medical tourism, tourism and hospitality policy and law, leadership and resilience, and community-based tourism. He is a recipient of the Australian Centennial Medal, a Fellow of the Planning Institute of Australia, and has published more than 170 books and papers. Email: [cooperm@apu.ac.jp](mailto:cooperm@apu.ac.jp)