

Influence of Environmental, Social, and Governance (ESG) scores on the economic growth of Indian companies listed on the National Stock Exchange

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Abstract

Our objective in this study is to investigate the correlation between ESG Scores and Corporate Economic Growth. We gathered non-financial data on Environment, Social, and Governance ESG Scores in India from 2021 to 2023 through panel data regression with an international perspective. The data was sourced from NSE listed Indian companies and the CRISIL Database. The findings of this study provide support for the notion that ESG scores play a significant role in corporate economic growth. Additionally, a robust association was identified between all ESG scores and the economic growth of India. According to existing literature, companies with higher ESG scores are viewed as having more favourable economic growth prospects. This research paper seeks to assess the corporate economic growth of Indian companies listed on the National Stock Exchange and analyse the impact of ESG scores using panel regression analysis.

Keywords: Social, Environmental, Governance Scores, Economic growth, Indian Companies.

INTRODUCTION

In recent years, there has been a growing awareness among Stakeholders about the impact of ESG factors on the Corporate economic growth (RashidaA.R.,2021). ESG Score can be used by Stakeholders to evaluate the company's long-term sustainability and potential risk. Stakeholders, especially investors, have been increasingly using ESG information in recent years. At first, there was little information about non-financial information like ESG disclosure. Most of the time, they were referring to traditional extract data for the company's annual report and website.

Nowadays, companies are shifting to data stream-based reporting to stay competitive. Environmental pressures from stakeholders on issues like climate, pollution, and waste are on the rise. ESG information has significantly changed the business appropriately and effectively.

Companies understand the significance of ESG disclosure in shaping their reputation and addressing environmental issues with stakeholders. The global trend of ESG disclosure has significantly increased over the years as companies strive for sustainability. Three prominent international financial service agencies - Bloomberg, MSCI, and Thomson Reuters - provide integrated ESG scores. High ESG scores indicate a company's commitment to generating long-term shareholder value.

Economic performance metrics, such as customer loyalty, performance, and shareholder loyalty, are crucial in assessing a company's ability to achieve sustainable growth and high ROI by effectively utilizing its resources. These metrics not only reflect the financial health of a company but also its potential to create long-term shareholder value

through sound management practices. Therefore, analysing the correlation between ESG practices and economic performance is of great importance. Research on the impact of ESG scores on market value has primarily focused on developed countries, with empirical studies mainly centered on companies outside the country. As a result of our observation, very few research papers address the issues in an all-encompassing manner by using NSE India's ESG exposure score as well as CRISIL's panel data. By using this panel data, the existing literature could be further enriched by discussing ESG scores from an environmental management point of view. CRISIL data is rich and consistent as it is compiled using a unified methodology approach.

For the 2021-2023 analysis, a sample of 50 companies across 10 sectors listed on the NSE in India was utilized. The sample consisted of 50 companies for each year under observation. Non-financial data was gathered from the NSE India database and CRISIL's database. ESG scores (Environmental, Social, and Governance) from CRISIL serve as a comprehensive evaluation of a company's operational strategies. These scores highlight companies that prioritize long-term sustainability and value creation for their shareholders, rather than short-term gains.

Literature Review

The review of the literature was done to find research gaps. To learn about the existing work, research papers published in international journals, books and magazines were studied. The present study is relevant to community and stakeholders, so a crucial question can be raised about whether ESG score can influence the Corporate Economic growth. So, in order to find the answers to the questions and to understand the relationship of Corporate Economic growth to environment, social and governance as well as overall ESG.

Shah S. (2022) examined the impact of ESG implications for c-suite and corporate India. C-suite" means refers to the executive-level managers within a company. They have identified key themes and focus areas for the c-suite to consider while trying embedding ESG parameters into business operations: a) Sustainable/ ESG financing, b) Operating modal, and c) Stakeholder engagement. All of the above themes are in a way interrelated. According to this, the time for the C- suite of Indian companies to act is now. The more proactive they are, the bigger will be the benefits and opportunities for future generations in India. After studying the research paper found that the focus on ESG has been particularly expedited by the Covid-19 pandemic. There is mounting pressure on businesses from all stakeholders to start thinking about their sustainability and wider ESG journey. But they have told that, what the effect of ESG on the Stakeholders - shareholders, investors, regulators, suppliers, customers and communities.

Rashidah A. R. (2021) purpose of this study was to draw conclusions regarding the factors influencing the reporting of Environment, Social, and Corporate Governance (ESG) among Asian firms. The researchers utilized a cross-sectional model and found that firm characteristics such as economic performance, profitability, leverage, and size were associated with the disclosure of additional ESG information. These findings hold significant implications for firms, stakeholders, and policymakers. In order to remain competitive in the global market, firms may face pressure from stakeholders to provide more comprehensive ESG information, while policymakers may need to develop a legal framework that aligns with the needs of Asian firms. Additionally, the study highlights the importance of Asian policy stakeholders formulating guidelines or regulations to enhance ESG reporting frameworks. By collaborating and establishing a consensus on reported ESG information, policy regulators in Asia can help reduce the wide variation in ESG disclosure among publicly listed firms in the region.

Sharma P., Panday P. & Dangwal R. C. (2020) The author examined the relationship between financial statements and the extent of (ESG) Environmental, social and Corporate Governance disclosure of Indian companies. In this research paper, financial performance analysis was used to analyse the ESG performance of the Indian companies from their annual and sustainability reports. Ordinary Least Square (OLS) method was used to examine the relationship between the (ESG) Environmental, social and Corporate Governance disclosure index and the independent variables. Since it had been shown in literature that the voluntary Environmental, social and governance reporting in India is generally low. In recent times, there has been an increase in ESG reporting, to address the increasing concerns of the stakeholders by SEBI. The study reveals the extent of the disclosure of (ESG) Environmental, social and Corporate Governance to companies annual and sustainability reports and constructed the

CSR index based on GRI framework and Clause 49 of listing agreement.

Aida M. I., Izrul H. & Mohd L. (2019) This study aimed to explore how board diversity impacts a firm's sustainability practices. The research focused on the increasing awareness of sustainability issues in emerging and frontier markets, particularly among Malaysian listed companies. The voluntary disclosure of Environmental, Social, and Governance (ESG) information in annual reports has been on the rise, with data including ESG Scores of 38 listed companies in Malaysia from 2010 to 2016. The selection of this topic area was driven by the lack of empirical studies on ESG disclosure in public listed companies in Malaysia. The findings indicated a positive relationship between board capabilities and firm sustainability disclosure, supporting the initial hypothesis. This study contributes to the understanding of firm sustainability practices in Malaysia by emphasizing the role of the board of directors in adopting ESG factors.

Kulakova L. (2018) the aim of this study was to make conclusion about whether East Capital's proprietary scorecards is useful in prediction of any material risks which could impact the financial performance of the companies included in ESG investable universe. According to these two main issues that most of the previous research suffered from construct validity. First of all, the result of principal component analysis (PCA) indicated dominance of Environmental, Social and Governance components in the variance of the total ESG score. Data has been collected through the questionnaire and were analysed using descriptive statistics, exploratory factor analysis, and regression. Their result revealed that the application of ESG significantly enhances the qualitative characteristics of financial information of Sweden companies in emerging and frontier markets.

Djoutsa L., Braune E. and Hikkerova L. (2017) the objective of their research was to find out whether there is a relationship between the Corporate Governance and the systematic risk of European companies. They performed a principal component analysis (PCA) to condense the quantity of Corporate Governance aspects into the five Scales: board of directors' characteristics, shareholder rights, management's shareholder commitment, independence of the audit and financial information transparency. The findings of this study postulated weak but significant (at 10 percent threshold) negative effect of the PCA-derived index on the risk born by the company. Especially this systematic risk is more likely to be reduced by such components of the index as the effectiveness of board of directors and management's commitment to shareholder.

Limkriangkrai, Koh, and Durand (2017) analysed the separate effect of Environment, Social, and Governance pillars on Australian stock market returns from 2009 to 2014. To predict stocks' excess returns, the authors used the Fama-French-Carhart four-factor model, Carhart (1997), and a risk adjustment variable. There was no influence of ESG on stock returns. The authors also compare the performance of stocks with a high ESG score with low ESG score ones. Finally, they do not find abnormal returns for high ESG, E, S, and G stocks.

Ali and Odell (2016) Their study is to evaluate the performance of investment strategies within emerging markets associated with the environment, social and governance (ESG) research integration. For this purpose, researchers compared national- and international-specific non- ESG and ESG based emerging markets indices. The comparison is performed using the following quantitative investment metrics: Conditional Value at Risk, the Omega ratio, the Sharpe ratio, skewness, beta and historical returns. The study concludes that ESG research-based investing strategies yield better performance at emerging markets than non-ESG equity investments. According to this ESG-based investment could be particularly profitable within emerging markets given the problems they face such as corruption, urbanization and poverty. Thus, the sustainable initiatives in those regions might have a better financial return. Data has been collected through the questionnaire and were analysed using descriptive statistics, exploratory factor analysis, and one-sample t-test. Their result revealed that the application of ESG significantly enhances the qualitative characteristics of financial information. Its application was perceived to have a greater influence on the financial performance of companies in emerging and frontier markets.

Identification of the Research Gap

Is there a relationship between a company's ESG Score's and Corporate economic growth? How does the performance of each ESG pillar Scores affect the Corporate economic growth? Answering these questions is the central focus of this study.

After reviewing these papers, the following research questions comes in mind.

1. Is there any significant impact of Corporate Environmental scores on the expected positively influence the Corporate economic growth?
2. Is there any significant impact of Corporate Social scores on the expected positively influence the Corporate economic growth?
3. Is there any significant impact of Corporate Governance scores on the expected positively influence the Corporate economic growth?
4. Is there any association between the overall ESG (environmental, social and governance) scores on the expected positively influence the Corporate economic growth?

Objectives of The Study

1. To examine the impact of Corporate Environmental scores on the positively influence the Corporate economic growth.
2. To examine the impact of Corporate Social scores on the positively influence the Corporate economic growth.
3. To examine the impact of Corporate Governance scores on the positively influence the Corporate economic growth.
4. To examine the impact of Environmental, Social, and Corporate Governance (ESG) scores on the positively influence the Corporate economic growth.

Research Methodology

This research study adopts an analytical approach, utilizing data primarily sourced from NSE India and CRISIL. The study focuses on a limited scope of 50 companies listed in NSE. The sample period for this research spans from April 2021 to March 2023. CRISIL provides the Environment, Society, and Governance scores for each company, while the economic growth of Indian companies is calculated using the Capital Asset Pricing Model (CAPM). The return is calculated on a yearly basis. Panel Regression analysis is conducted using E-views software to investigate the impact of ESG scores on Indian economic growth. The objective is to determine if a reliable model can be developed to predict future corporate economic growth.

The research aims to shed light on the positive influence of ESG scores, as outlined in sustainability reports, on corporate economic growth. By doing so, it seeks to emphasize the importance of considering ESG factors when making investment decisions in the current era, providing valuable insights to stakeholders.

Major Hypotheses

Based on the findings summarized in the literature review, the following hypothesis will be tested.

H01: Environmental scores have no significant impact on the expected positively influence the Corporate economic growth.

H02: Social scores have no significant impact on the expected positively influence the Corporate economic growth.

H03: Governance scores have no significant impact on the expected positively influence the Corporate economic growth.

H04: There is no significant overall Environmental, Social, Governance scores on the positively influence the Corporate economic growth.

Empirical Analysis and Results

(A) **Descriptive Statistic:** The descriptive statistics for the variables can be found in Table A below. It is worth noting that all the variables exhibit a normal distribution, with skewness values falling within the range of less than ± 1 . Upon analysis, it is evident that corporate social scores have the highest mean percentage (52.54) for ESG Scores in India over a span of two years, accompanied by a standard deviation of 32.48. To assess the consistency between the distributions of ESG Scores and Economic Growth, the coefficient of variation was employed. The coefficient of variation allows for a comparison of consistency, with smaller values indicating a more consistent distribution. In this case, the coefficient of variation for economic performance (43.68) is smaller, signifying that economic performance in India is more consistent.

Table A: Descriptive Statistic for Variables

	N	Mean	Std Deviation	Skewness	Coefficient of variation
Economic	50	41.25	28.14	0.485	43.68
Environment	50	36.85	25.19	0.645	63.15
Social	50	52.54	32.48	0.214	58.25
Government	50	48.81	22.73	0.541	48.56

(B) **Correlations:** The correlation analysis displayed in Table B indicates that the ESG score variables (ECO, ENV, SOC, GOV) exhibit statistically significant positive correlations with corporate economic growth at a significance level of 0.05.

Table B: Correlation

ECO	Pearson correlation Sig.(2-tailed) N	1 - 50
ENV	Pearson correlation Sig.(2-tailed) N	0.624** 0.00 50
SOC	Pearson correlation Sig.(2-tailed) N	0.745** 0.00 50
GOV	Pearson correlation Sig.(2-tailed) N	0.745** 0.00 50

(C) **Regression Analysis:** Table C presents the findings of a regression analysis that investigates the correlation between the independent variables of ESG (environmental, social, and governance factors) and the dependent variable of economic growth. The linear regression equation, which illustrates this relationship, is provided below:

$$ECO = \beta_0 + \beta_1 ENV + \beta_2 SOC + \beta_3 GOV + \varepsilon$$

$$EPMC = -3.957 + 0.205ENV + 0.312SOC + 0.625GOV$$

Table C: Regression Results

	Estimates	t	Sig.	Model fit	F Value (p-value < 0.05)
ECO.	-3.957	-0.652	0.534		
ENV.	0.205	1.145	0.254	R= 0.84	24.36
SOC.	0.304	1.654	0.205	R ² =0.703	
GOV.	0.625	2.55	0.045**	Adj R ² = 0.67	

As shown in Table C, a regression analysis of ESG scores and corporate economic growth for Indian companies produced an F-statistic of 24.36 (p<0.05), indicating the model is valid. The R-squared value was 0.703, suggesting ESG scores explain 70.3% of the variation in Indian corporate economic growth. Of the ESG components, only governance scores significantly and positively predicted corporate economic growth (p=0.045).

Discussion on Results

This study examines the relationship between ESG scores and corporate economic growth for 50 Indian companies listed on the NSE. The results reveal a significant positive correlation between governance scores and corporate economic growth, consistent with previous empirical studies finding a positive link between governance factors and economic growth (Tarmuji&Ruhanita, 2016). Although implementing governance management requires investing additional resources like funding, technology, and human capital, leading to extra costs, the literature indicates that proactive governance scores can benefit corporate economic growth.

Social responsibility practices have been shown to have a significant impact on the economic growth of corporations. Research findings indicate that social practices play a crucial role in influencing the economic growth of 50 Indian companies listed on the NSE. It is essential for companies to consistently engage in good social practices as it can improve employment quality, health and safety standards, training and development opportunities, diversity, human rights, community involvement, and product responsibility. These factors, in turn, contribute to creating long-term value for stakeholders.

Furthermore, the study also found that corporate governance scores have a notable influence on the economic growth of Indian companies. This aligns with the idea that corporate transparency and disclosure are closely linked to economic growth. Establishing a robust governance structure can provide strong support from top management. Previous research suggests that larger boards of directors in Indian firms tend to operate more effectively. Therefore, utilizing regression analysis can effectively demonstrate the relationship between corporate governance scores and corporate economic growth.

Conclusion

Today's business is connected on a worldwide scale. Stakeholders understand that a company's profitability and long-term viability are directly related to its ESG responsibilities. Studies indicate that conscientious handling of environmental, social, and governance (ESG) matters fosters a business culture and atmosphere that enhances a firm's credibility with the community and the confidence of its investors. As a result, businesses who publish their ESG scores in the general public were said to have improved their reputation, which in turn led to an increase in investor confidence, efficient resource usage, and continued competitiveness.

The findings show how ESG ratings affect the corporate economic growth of Indian companies listed on the NSE. Policy makers, corporate management, and stakeholders can utilise the findings as a roadmap to adopt ESG scores. By making an effort to close the gaps in the research in the following areas, this paper also advances the field of study on ESG scores. First off, while we consider all four ESG dimensions (economic, environmental, social, and governance), many previous studies concentrate on or isolate only one of these dimensions.

Second, a significant portion of ESG research focuses on examining the relationship between ESG and financial success. As such, our goal is to investigate ESG's wider impact on company economic growth. Third, most ESG research is conducted in the United States, the United Kingdom, and other developed nations. As such, we expand on earlier research on country coverage (ESG studies on Asian countries). Fourth, panel data from the MSCI and Bloomberg databases are used in the majority of the investigations. The CRISIL data stream used in this research is still quite young and small.

The study's limitations are recognized. The CRISIL data-constructed environmental, social, and governance score is limited to examination. Our theoretical and empirical conclusions are likely to be more applicable to NSE listed firms than exclusive ones, based on publicly available information for NSE listed companies.

Additionally, the sample size is tiny in number. The study's findings shouldn't be applied to a large sample size. Larger sample sizes and a variety of data sources are encouraged for future research. Regional analysis can be used to comparisons of ESG scores. Clarifying the ESG scores and their connection to corporate economic growth can also be accomplished through the use of the qualitative technique.

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