Examining the Relationship of Environmental, Social, and Governance (ESG) Scores on Market Capitalization

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Abstract:

This research paper analyzes how ESG ratings impact the market capitalisation of the top firms in India. Thus, the purposes of the study are to assess the relationship between ESG performance and the stock market value and determine leaders and laggards in ESG companies. In this case, the companies under consideration are five selected and operate in the FMCG industry, namely Hindustan Unilever, ITC, Tata Consumer Products, Nestle India, and Britannia Industries. In addition, the research uses both quantitative and qualitative data whereby the ESG score from the companies is evaluated based on the environmental, social and Governance indicators as well as comparing the three sets of ESG scores to the market capitalization of the respective companies. Classification of the variables Multiple linear regression analysis is carried out to compare the performance of the ESG scores (IV's) and market capitalization (DV). Based on these results, it may be seen that some firms excel in particular ESG issues that have to do with their business activities, however, the authors do not disclose the statistically significant correlation between ESG scores and market capitalization for the analyzed sample. Accordingly the paper concludes ESG scores are insignificant in this dataset insofar as an impact on market capitalization is concerned.

Key words

Environmental, Social, and Governance (ESG), Market Capitalization, Economic, social and Governance (ESG), Sustainability, Regression Analysis, FMCG Industry.

I. Introduction

The topic of Corporate Social Responsibility and sustainable business has been at the forefront of many organizations' list of priorities over the past years. It has become common to assess the success of organizations not only in terms of economic profit but also in terms of their conservation and respect for the environment, social obligations, and good governance. This paradigm is commonly known as the ESG – Environmental, Social, and Governance integrated model. ESG stands for Environmental, Social, and Governance, and is a concept that covers numerous aspects determining a company's ability to influence environmental change positively, treat its clients, employees, shareholders, and society fairly, and maintain robust corporate governance practices. This foundation holds that firms incorporating effective ESG policies are better at managing risks, developing sustainable solutions, and providing sustainable returns for stakeholders. The specific objective of this research paper is to establish a relationship between the ESG scores for a firm and its market capitalization. Market capitalization, defined as the value of total issued shares of a firm, is a barometer of the firm's rank and size in the market. By analyzing ESG scores collected from the datasets of different companies and Market Capitalization data compiled from the Nifty 50 report, the research aims to establish the relationship between the level of ESG principle implementation and the perceived value of the firm in the market. This research will employ both quantitative and qualitative data to survey several

companies and analyze their ESG outcomes in environmental, social, and governance criteria. The analysis will focus on comparing these ESG scores to the actual market capitalization of the companies under research to discover relationships or correlations.

Recognizing the correlation between ESG performance and market capitalization could enhance investment efficiency for investors and contribute to policy-making and strategy formulation for businesses. If such a pattern is identified, it could strengthen the theory about the benefits of sustainable and socially responsible business practices, potentially creating extra value and increasing the market capitalization of a company[1].

This research has the potential to contribute significantly to the growing body of knowledge on the importance of ESG factors in driving corporate success and sustainable growth. By incorporating data from the Nifty 50 report[2], this study will provide a robust analysis of leading companies in the Indian market, offering valuable insights for investors, policymakers, and business leaders.

II. Objectives of the study:

- Evaluate ESG Impact: Additionally, to measure the effect of ESG scores when it comes to its market capitalization among leading corporations.

- Identify Leaders and Laggards: To be used in distinguishing the firms that implement ESG compliance effectively from the firms that require enhancement in their ESG standards.

- Analyze ESG and Financial Performance Relationship: Based on the hypothesis developed above, it would be appropriate to use regression analysis as a method of working with the indicators of ESG scores and market capitalization of 5 companies taken from the Nifty 50 report.

III. Limitations of the Study:

Sample Size: The study was conducted on a sample of 5 firms only and this would probably not extend coverage to the entire population or domain of the study. A more inclusive sample population size could produce a greater validity and reliability of the results applicable in the general population.

Omitted Variable Bias: While the study was conducted, ESG scores were taken into account as plausible drivers of market capitalization only. Other variables like firm type, business environment, financial structures, and business performance and conditions in the industry could also affect market capitalization and had not been incorporated in the model.

Data Quality and Reliability: It is worthy of note that we assumed that there were no errors in the obtained ESG scores and the market capitalization information extracted from CompaniesMarketCap.com, Trendlyne.com, Times of India, India Today, and Moneycontrol . The general conclusion can be made that the significant method's strength is its ability to attract various data sources, while the potential problem could be potential errors or biases in the sources, which can affect the validity of the results.

Time Period: It is providing a sectional study at a particular time only that often hampers the generalization of the results. Perhaps data across more time horizons – that is, as longitudinal data, or panel data – could shed light on its time-varying covariation with ESG scores and total market capitalization.

Industry Specificity: It can further be explained that the significance between ESG scores and market capitalization may not remain the same in another industry or sector. This is a limitation that means they might not work for other sectors or for other organizations that do not have similar characteristics.

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[1] https://tradingeconomics.com/india/market-capitalization-of-listed-companies-us-dollar-wb-data.html
[2] https://www.nseindia.com/products-services/indices-nifty50-index

Literature Review

Surprisingly, there is literature that supports the view that the consideration of ESG factors leads to an improvement of investment performance with other arguments suggesting otherwise. Some empirical contents have suggested that there are positive associations between the ESG performance and various financial results; the others have identified no association or even negative association between them.

Another research undertaken by Orlitzky et al. (2003) involved a statistical synthesis of 52 previous studies on the relationship between social and environmental responsibility and business profitability and viability, and the research substantiated positive relationships. As well, compared to the previous meta-analysis, Song et al. (2023) conducted another meta-analysis using a dataset of 24,076 observations and discovered a significant and positive link between ESG performance and corporate financial performance.

However, other researchers who have attempted to replicate some of these results have presented mixed findings. Kluza et al. (2021) reported both direct and inverse figures of association between environmental and financial performance as well as a few of no correlation. It is also important to note that Sila et al. , (2016) as well as Haque and Ntim, (2018) established moderate positive, negative, and mixed effects of gender diversity on the board on organizational performance.

To this end, the existing literature stresses the potential for more studies into the dynamics and views on how the correlation between ESG factors and investment performance actually takes shape especially in emerging economies such as India.

Hypothesis :

- *Null Hypothesis (H0)*: There is no significant relationship between ESG scores and market capitalization.
- *Alternative Hypothesis (H1)*: There is a significant relationship between ESG scores and market capitalization.

IV.   Analysis :

Company	Market Cap (USD billion)	E-Score	S-Score	G-Score
Hindustan Unilever	73	48	50	63
ITC	33	52	61	56
Tata Consumer Products	8.3	45	52	57
Nestle India	24	25	41	69
Britannia Industries	12.3	36	21	57

Table : 1.1

The market capitalizations and ESG (Environmental, Social, and Governance) scores for several major companies: The companies which have paid considerable heed to the Indian market are Hindustan Unilever, ITC, Tata Consumer Products, Nestle India, and Britannia Industries.HUL leads the market when it comes to current market capitalization with USD 73 billion, a testament to its market dominance as well as financial might. ITC comes next on the list of big biscuits players with a market capitalisation of USD 33 billion, Nestle India with the market capitalisation of 24 billion USD and Britannia Industries with the capitalisation of 12 billion USD. 3 billion, respectively. Tata Consumer Products, as of the current market, with a market capitalization of USD 8. Larger Organization, which has shares in the stock exchange has a market capitalization of over 3 billion US dollars, making it the smallest among the listed companies, but has the

potential to grow. Thus, the E-score, an environmental management index, places ITC Ltd in the leadership position with an E-score of 52 as the company has shown earnestness in the implementation of its environmental policies. Thus, India's largest fast-moving consumer goods company, Hindustan Unilever Limited, has sustainable palm oil sourcing commitments at 48, and Tata Consumer Products, a major company focused on food, has commitments at 45. On the other hand, Britannia Industries revealed 36 while Nestle India has recorded an overall low score of 25, which gives an indication of an organization's weak environmental practice.

Another measure that impacts the outcome is social responsibility, in which ITC performs exceptionally well with an S-score of 61, pointing to a solid commitment to the community and numerous social programs. AnotherFMCG company showing a good performance is Hindustan Unilever with 50% and Tata Consumer Products has 52% that clearly shows their commitment towards social cause. However, Nestle India has scored only 41 in social responsibility, which indicates that the company must put efforts into extending social responsibility measuresBrittan Industry has 21 only in the social responsibility index, so this company also requires producing more initiatives in the sphere of social responsibility Indexes of corporate governance are essential for stability and economic sustainability, and among all the companies, Nestle India has the highest G-score of 69, which demonstrates excellent performance inRanking third is NESTLE with G-score of 64 to show good governance practices The fourth Company is Hindustan Unilever with the G-score of 63. we have stocks with relatively high governance scores – ITC with 56, Tata Consumer Products with 57 and Britannia Industries with 57 but they still can not be compared to Nestle India's scores. The sector sees overall good standing especially with HUL and ITC boasting impressive market capitalization and sound profile on the ESG indicators as well.

 Hindustan Unilever as a leader having a sustainability performance is well rounded across all ESG indicators. Moreover, as seen in Table 1.1, ITC has the highest ranks for E and S, which illustrate its environmental and social initiatives. Nestle India being superior governance score, it means the company upholds strong corporate governance practices, which is vital to investors and the sustainability of the firm. Britannia Industries and Tata Consumer Products are the two Indian companies which are having relatively low market cap but they can also have good growth by the way of improvement in these parameters. Britannia Industries have comparatively lower values of E and S scores could improve its market position by emphasizing on environmental and social aspects. As for other companies on the list, Tata Consumer Products is a comparatively smaller company but has much better ESG scores, and its performance may improve if it expands the market and continues to improve its sustainability efforts.

To further analyze the data, we can now apply regression techniques to understand the relationship between ESG scores and market capitalization, which will help identify the impact of sustainability practices on financial performance.

The results are as follows :

Variable	Coefficient	Standard Error	t-value	p-value
const	-544.1346	92.63	-5.874	0.107
E-Score	4.6149	0.833	5.541	0.114
S-Score	-1.2414	0.434	-2.862	0.214
G-Score	7.2845	1.246	5.848	0.108

Table 1.2

Market Capitalization of Companies
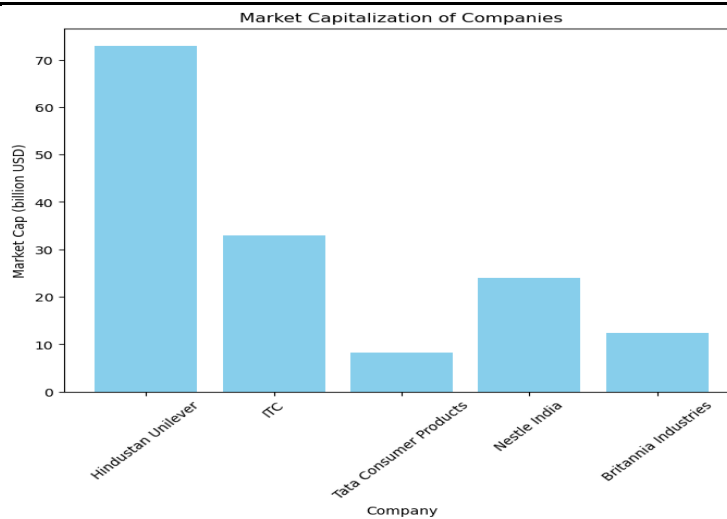
Interpretation:

1. Intercept (Constant): The baseline level of market capitalization when all ESG scores are zero is -544.1346. However, this value is not statistically significant (p-value: 0.107).
2. Individual Predictor Significance:
- E-Score: p-value = 0.114 (greater than 0.05)
- S-Score: p-value = 0.214 (greater than 0.05)
- G-Score: p-value = 0.108 (greater than 0.05) None of the individual predictors (E-Score, S-Score, G-Score) have p-values less than 0.05, indicating that none of them are statistically significant predictors of market capitalization.
3. Overall Model Significance: Since the p-value is greater than 0.05, we fail to reject the null hypothesis at the 5% significance level. This means that the overall model is not statistically significant, and we do not have enough evidence to conclude that there is a significant relationship between the ESG scores and market capitalization.

V. Conclusion:

Based on the regression analysis, we fail to reject the null hypothesis (H0). This means that there is no statistically significant evidence to suggest a relationship between ESG scores (E-Score, S-Score, G-Score) and market capitalization. Therefore, we conclude that the ESG scores do not have a significant impact on market capitalization in this dataset.

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Appendix

Company	E-Score	Reason for E-Score	S-Score	Reason for S-Score	G-Score	Reason for G-Score
ITC	52	Strong environmental initiatives and sustainability practices	61	Strong social impact through community programs, employee welfare, and consumer health initiatives	56	Strong governance but slightly lower than top peers
Hindustan Unilever	48	Efforts in reducing environmental impact through efficient resource use and waste management	50	Extensive social programs and responsible marketing practices	63	Effective corporate governance framework and ethical practices
Tata Consumer Products	45	Focus on sustainability in its supply chain and product lifecycle	52	Commitment to social responsibility and fair trade practices	57	Good governance structure and accountability measures
Britannia Industries	36	Moderate environmental efforts compared to peers	21	Lower score could be due to fewer social initiatives or less effective implementation	57	Comparable governance practices to Tata Consumer Products
Nestle India	25	Lower score possibly due to lesser focus or disclosure on	41	Engages in various social initiatives but could improve in areas like labor practices	69	Strong governance practices, transparency, and compliance

		environmental metrics			
Average	41		45		60

Source : journals.bilpubgroup

Company	Market Capitalization (INR crores)	Market Capitalization (USD billion)
Hindustan Unilever Ltd. (HUL)	₹5,73,000	73
ITC Ltd.	₹2,53,000	33
Tata Consumer Products Ltd.	₹63,000	8.3
Nestle India Ltd.	₹1,83,000	24
Britannia Industries Ltd.	₹93,000	12.3

Source : The data presented in the table above regarding the market capitalization and stock prices of Hindustan Unilever has been sourced from multiple websites including CompaniesMarketCap.com, Trendlyne.com, Times of India, India Today, and Moneycontrol.