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A sectoral wise analysis of ESG compliances and financial results: Evidences from Indian Market

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Abstract

The landscape of the Indian financial market has been revamped over the years. Sustainable investment is an emerging trend in modern times catching the eye of the investors as it relates to the enduring value generation by harmonizing the capital with responsible business practices. Sustainable investment refers to the practice of incorporating Environment, Social and Governance (ESG) components into financial decision making, with the intention to generate long term returns. In this approach to financial analysis, non-financial factors like carbon footprint, labour practices and corporate governance are taken into consideration as factors of long-term sustainability. The purpose of this research is to analyse the impact of sustainable investment on financial performance through a sector specific performance. Different sectors of the economy have distinct exposure to ESG practices, like manufacturing industries are exposed to environmental issues while technological and financial companies are exposed to governance and social concerns. Hence the study seems to be relevant as it explores the connection between sustainable investment and financial performance of companies from different sectors. This paper makes use of correlation and regression models to assess the impact between these selected dependent and independent variables. This study is unique as it compares the industry-wise impact, over the years and thereby bridging the gap in literature. The study aims to provide a meticulous understanding about the nexus between sustainable practices and financial success which in turn aids the companies and policy makers in aligning the industry specific sustainable goals with financial strategies.

***Keywords**: Sustainable Investment, Financial performance, ESG*

Introduction

The changing business environment is witnessing a paradigm shift of investors from traditional financial investing to sustainable investing. The incorporation of environmental, social and governance considerations into investment choices is gaining recognition from the broad spectrum of investors, businesses and society at large. ESG refers to how corporations integrate environmental, social, and governance issues into their business models (Gillan et al., 2021). In practice, ESG strategy and reports are an inherent part of the corporate strategy of companies taking a socially responsible approach. The implementation of sustainable business models has become crucial for sustainable development (Bocken and Short, 2021) and a company's financial results.

Sustainable investment involves merging ESG components into traditional financial assessments while probing into potential investments. This approach will push the capital to those corporates that provide priority to responsible and sustainable practices, considering their impact on environment sustainability, commitment to social responsibility and Governance frameworks. In recent decades, a surge in the number of firms have invested considerable financial resources implementing corporate social responsibility (CSR) strategies, i.e., developing a process to integrate social, environmental, ethical and human rights concerns into their business operations and core strategy in close collaboration with their stakeholders (European Commission, 2011). The number of companies that issue sustainability/ESG reports has considerably increased over the last few years (G&A, 2021, 2020a; 2020b). In addition, the Principles for Responsible Investment (PRI) have been developed to support investors by addressing ESG issues in investment practices, including environmental issues such as sustainable commodities,

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biodiversity, and circular economies; social issues such as human rights, working conditions and modern slavery; governance issues such as tax fairness, responsible political engagement, and executive pay (PRI, n.d.). The principles are designed to align investment practices with the UN Sustainable Development Goals (SDGs) adopted by all UN Member States in 2015 (UN,2015). Thus, with detailed guidance regarding responsible investment practices, it is easier to integrate ESG concerns into investment analysis and decision-making processes. Moreover, the growth of responsible investment has had a significant impact on financing cleaner production methods and sustainable practices within organizations (Ortas et al.,2013).

Investors place significant value on ESG investing for two reasons. Firstly, ethical investment practices can be actively promoted through ESG investing. Secondly, ESG investing enhances the performance of a managed portfolio by increasing returns while reducing portfolio risk. Galbreath et al. (2014) reported that integrating sustainable investment with ESG factors is the fastest-growing and the most popular investment approach. Nair and Ladha, 2014 highlighted the fact that though sustainable investment has grown considerably in developed nations like America, Australia, and Europe, the growth in emerging economies is at a slow pace. However, as per a report published by India's top credit rating agency, ESG-focused funds have become attractive for major players, such as Aditya Birla Sun Life ESG Fund, Axis ESG Fund, ICICI Prudential ESG Fund, Kotak ESG Opportunity Fund, Mirae Asset ESG Sector Leaders ETF, Quantum India ESG Equity Fund, and SBI Magnum Equity ESG Fund (CRISIL, 2022).

Significance of the study

Sustainable investments, particularly ESG compliances have gained prominence in recent years as key indicators of corporate responsibility and long-term financial health. The relationship between ESG compliances of companies and examining their financial performance sheds light on how sustainability initiatives contribute to long-term financial success in diverse sectors. The analysis of CRISIL scores for 2023 provides up-to-date insights, offering a snapshot of corporate ESG performance and its alignment with financial outcomes. Comparing the impact of ESG components on financial performance indicators across industries helps to identify the financial benefits which a company may experience from adhering to sustainable practices. This aspect is important for investors and stakeholders who are considering ESG factors in their decision-making processes. Furthermore, the study explored the relationship between ESG compliance and financial performance of companies across industries. The findings of the study will provide valuable guidance to investors while making investment decisions.

Review of Literature

India has made significant strides toward achieving the Sustainable Development Goals (SDGs), with Environmental Social Governance (ESG) playing a key role in this trajectory. ESG covers a wide range of issues, including environmental risks like climate change, social factors such as diversity and health, and governance issues like transparency and ethics. Recognizing ESG's importance, policymakers have introduced regulations such as the Business Responsibility and Sustainability Report (BRSR), which became mandatory for the top 1000 listed firms from FY 2023-24. This mandate has led to widespread adoption, with over 1200 firms voluntarily submitting their ESG disclosures. The growing acceptance of ESG practices in India has sparked significant research interest, particularly concerning the impact of ESG on firm performance and its potential to contribute to sustainable economic development.

Hirigoyen and Poulain-Rehm (2015) examine the relationship between various aspects of a company's approach to ESG and its financial performance. The companies' financial performance is assessed using their market-to-book ratio, return on equity, and return on assets by selecting 329 publicly traded companies from the Americas, Europe, and Asia-Pacific as the sample for the study. The study stated that a company's ESG approach to human and environmental dimensions, as well as social responsibility, had a negative effect on return on equity and return on assets.

Kruger (2015) argued that it is not ESG factors that allow investors to manage risks; instead, companies' higher valuation effectively leads to better financial shape. This enables investors to invest more in measures that improve their ESG profile, which leads to firms accumulating higher ESG scores. A higher ESG score thereby helps in identifying equity stocks that result in higher shareholder wealth. This helps both companies and investors in deciding whether to focus on individual factors of ESG or identify the score that is possibly more important from an investor's point of view.

Bahra and Thukral (2020) analyzed the financial relevance of MSCI ESG scores and individual pillar scores in the corporate-bond market. They found that correlations among the three pillar scores were very low—which mirrored the finding in Giese, Lee, and Nagy (2020)—and that there were no significant correlations between MSCI ESG scores and credit ratings. Their main finding was that MSCI ESG Ratings were additive to credit ratings in their financial relevance: MSCI ESG Ratings can be used to reduce risks (e.g., volatility and drawdowns) and, in some cases, improve risk-adjusted returns. They explained their finding with the fact that the contingent liabilities related ESG issues are not necessarily factored into credit-rating assessments.

Murata and Hamori (2021) examined the impact of ESG disclosures on stock price crash risk across major market indices in Europe, the U.S., and Japan and indicated that while ESG disclosures significantly reduce crash risk in Europe and Japan, they do not have a statistically significant effect in the U.S. market. The use of both static and dynamic models strengthens the analysis, though regional differences suggest varying effectiveness of ESG practices. These results offer valuable insights for investors and policymakers but highlighted the need for further investigation into why the U.S. market behaves differently.

Whelan et al. (2021) from Rockefeller Asset Management and the NYU Stern Center for Sustainable Business investigated more than 1000 papers published between 2015 and 2020 focusing on the link between ESG and financial performance. The analysis revealed that 58% of the papers found a positive relationship between ESG and financial performance, 8% negative relationship, 13% no relationship, and 21% mixed results. They concluded that, while the majority is positive, the results indicate ongoing disagreement on the issue.

Zhang and BI (2022) examined the correlation between corporate social responsibility and financial performance of 30 chemical companies from 2016-2021, using metrics like salary growth, operating cost to revenue ratio, and Return on Total Assets and highlighted a positive linkage between CSR and financial performance.

Kulal et al. (2023) Kubal et al. (2023) analyzed the impact of ESG factors on stock prices and investment returns and found a positive relationship between ESG factors and stock performance in Indian publicly traded companies. Companies with strong institutional strength achieved better results in ESG aspects and stock performance, highlighting the importance of social activities in investing in stocks. Focusing on long-term ESG performance helps companies manage risks and regulatory change.

Fu and Li (2023) analysed the effect of ESG on corporate financial performance by utilizing unbalanced panel data of 2256 Chinese-listed companies from 2015 to 2021 and found a positive relationship between ESG and financial performance in top-listed Chinese companies. They found that transparent ESG information helps avoid information asymmetry, reduces financing costs, strengthens stakeholder relationships, and enhances reputation and social image. Moreover, their study pointed out that digital transformation can regulate and moderate the relationship between ESG and financial performance to ensure sustainable growth for companies.

Marzuki et al. (2023) examined the publication metrics of literature related to the influential aspects of ESG (environmental, social, and governance), SRI (socially responsible investing), ethical, and impact investing on the portfolio and financial performance literature. By integrating ESG factors and actively engaging with companies, managers can make more informed investment decisions, mitigate risks, and seize opportunities for sustainable growth. Policymakers and legislators can support these efforts by promoting regulatory frameworks that incentivize responsible investment practices and encourage transparency in ESG reporting. Ultimately, by embracing the principles of sustainability and responsible investing, stakeholders can contribute to the development of a more efficient and resilient capital market, fostering long-term financial and portfolio performance.

Abdelmalak (2023) examined the effect of Environmental, Social, and Governance (ESG) information on firm performance in ASEAN developing countries during 2010-2020. The information on ESG score and ROA as a proxy for firm performance measures ESG. Regression test results showed that ESG has a positive effect on firm performance. We also found that three components of ESG, environmental, Social, and Governance, positively affect firm performance. Robustness test results showed that overall ESG information, environmental information, and social initiatives affect the firm’s market performance (Tobin’s Q). Research originality in this study proves that developing countries have a positive effect between ESG disclosure and company performance. ESG, in the long term, would build effective governance and increase shareholder value. The research implication is to suggest a company has ESG information due to empirical testing that ESG information enhances a firm operational and market performance

Peliu (2024) investigated the impact of ESG factors on corporate financial risk particularly focussing on debt and liquidity risks. The study explored linear and nonlinear relationships of various indicators namely debt, liquidity, corporate governance and performance of CEO using a quantitative framework based on companies listed on NYSE from 2012 to 2021 and stated that ROA has a negative effect on indebtedness and liquidity, while CEO duality and diversity significantly influence both factors. Furthermore, the COVID-19 pandemic negatively impacted corporate autonomy, highlighting the critical role of governance and other independent variables in shaping debt, liquidity and overall performance, guiding managers and investors towards sustainable decision-making.

Pasupuleti et al. (2024) examined the impact of ESG scores on the market performance of 67 polluting companies in India between 2020 and 2023 using a panel regression model and found that higher ESG performance is associated with improved financial outcomes. However, green initiatives were found to have no moderating effect on this relationship. While the findings offer valuable insights for managers looking to enhance financial performance through ESG strategies.

Research gap

The existing literature is primarily focussed on the impact of ESG scores on market performance, corporate financial risk, corporate financial performance and stock prices and investment returns. Only a handful of studies were found in sustainable investment and sustainable finance and that too were mostly carried out in an international perspective. In the Indian context, extensive studies on sustainable investment, its impact on the performance of various industries and the relationship between components of sustainable investment and financial performance of companies across industries have not been carried out. Barely any studies assessed the industry-wise analysis of the impact of sustainable investment on financial performance in this context. Further in this field it was found that the theoretical developments and empirical testing are still in their infancy. Thus, the current study is an effort to explore in this direction.

Objectives of the study

1. To identify Top companies from selected industries, with highest ESG compliances and examine their financial performance over the past 10 years
2. To analyse and compare the Crisil ESG score of companies in different industries for the year 2023
3. To assess the impact of ESG compliance on selected financial performance indicators – industry comparison

Research Methodology

The study is based on secondary data and descriptive analysis is done to understand the prevailing scenario in industry. Impact is analysed using regression. Secondary data is mainly taken from Bloomberg terminal and also from Crisil website.

Sample Data :

Sample data for the study is taken for a period of 10 years starting from 2015 to 2024. Missing values if any are excluded. Four industries, two from service sector and two from manufacturing sector are selected for the study. Industries selected are Banking, IT, Automobile and Energy sector. From among the companies in these industries 10 companies each are selected randomly based on a list of sectoral indices in NSE.

Hypotheses

H1 : There is significant difference in the average ESG score of companies in selected industries

H1: ESG compliances have significant impact on the selected financial performance indicators

Data Analysis & Discussions

This section analysis the ESG practices of different companies from two different industries Banking industry and IT industry. 10 Companies are selected from each industry and data pertaining to 10 years are collected. Based on that top companies with ESG compliances are identified.

Components used for ESG analysis are

a) Environmental components include Climate change, Energy consumption, Water consumption and policy, Biodiversity initiatives and policy
b) Social components include Human rights, diversity, consumer spending, Employees in CSR
c) Governance factors include Audit committees and composition, Meeting attendance percentage of board meetings, audit meetings, compensation committee meetings, Diversity of composition in boards

Table 1.1 Showing the financial performance of top listed banks based on ESG compliance

Banks	ROE	ROA	ROC	Net Income margin
SBI	8.07	.47	3.18	9.5
HDFC	17.62	1.9	8.15	32.04
AXIS	10.03	.98	3.53	17.98
ICICI	4.42	.30	2.14	6.85
Canara	3.87	.22	2.38	4.50
SIB	6.81	.43	3.84	11.89

Source: Compiled from Bloomberg

This table shows the 10 years average of financial performance indicators of selected companies . Even though the ESG compliance is high for SBI HDFC and Axis bank , financial measurement does not show any significant change among the different banks

Table 1.2 Showing the financial performance of top listed IT companies based on ESG compliance

IT companies	ROE	ROA	ROC	Net Income margin
TCS	38.62	27.68	37.11	20.61

Infosys	26.28	19.26	25.10	19.63
HCL	25.13	17.54	23.53	16.64
Wipro	18.08	11.92	15.36	15.50
Tech Mahindra	19.44	11.92	17.89	10.60
LTIM	33.60	22.96	31.86	14.69

Source: Compiled from Bloomberg

With regard to IT companies, it can be noted that companies with high ESG compliance are also having high financial performance indicators. Wipro TCS HCL and Infosys have both ESG compliance and income growth at the top when compared to other IT companies.Taking into consideration 10 years performance HDFC bank shows a consistent performance both in ESG compliance and in ROE ROA and income. In automobile sector Maruti Motors shows a consistent performance over the years with regard to ESG compliance and ROE ROA and income growth. In Energy power sector Adani energy and power grid shows top position both in ESG compliance and financial performance, followed by ONGC

Section 2

This section tries to exhibit an industry wise comparison of crisil scores of different companies. 30 sample companies are selected randomly from each industry and their average ESG score is compiled.

Table 2.1 Average ESG Score – Industry wise Comparison

Industry	Environmental Score	Social Score	Governance Score	Total ESG Score
Auto	37	57	66	54
Banks	57	61	71	64
Cement	39	52	63	52
Chemicals	36	52	65	52
Construction	33	54	63	50
Consumer Durables	40	54	68	54
Financial Services	46	48	67	56
FMCG	42	52	67	55
IT	52	56	70	61
Metals	32	56	64	51
NBFC	49	49	66	56
Pharma	44	57	68	57

Source: Compiled from https://www.crisilesg.com/en/home/esg-ratings.html

It can be noted that banks and IT companies are having highest ESG score when compared to other industries, followed by pharma companies. The average CRISIL ESG score of 30 companies from each sector is calculated. The significant difference in the average ESG score of top four industries are tested using one way Anova

Table 2. 3 Result of ANOVA

ANOVA					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1390.033	3	463.344	17.325	.000
Within Groups	3102.333	116	26.744		
Total	4492.367	119			

Source: Compiled from SPSS

Results shows that Null hypothesis is rejected and hence there is significant difference in the mean scores of these four industries, banks, IT, pharma and consumables. To get a detailed analysis post hoc test was conducted, results are given below.

Table 2.3 Multiple Comparisons

Dependent Variable: mean

LSD

(I) group	(J) group	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Banks	IT	2.60000	1.33527	.054	-.0447	5.2447
	Pharma	6.56667*	1.33527	.000	3.9220	9.2113
	consumables	8.76667*	1.33527	.000	6.1220	11.4113

IT	Banks	-2.60000	1.33527	.054	-5.2447	.0447
	Pharma	3.96667*	1.33527	.004	1.3220	6.6113
	consumables	6.16667*	1.33527	.000	3.5220	8.8113
Pharma	Banks	-6.56667*	1.33527	.000	-9.2113	-3.9220
	IT	-3.96667*	1.33527	.004	-6.6113	-1.3220
	consumables	2.20000	1.33527	.102	-.4447	4.8447
consumables	Banks	-8.76667*	1.33527	.000	-11.4113	-6.1220
	IT	-6.16667*	1.33527	.000	-8.8113	-3.5220
	Pharma	-2.20000	1.33527	.102	-4.8447	.4447

*. The mean difference is significant at the 0.05 level.

It can be noted that there is no significant difference in the meanscore of banks and IT industry but when compared with pharma and consumables there is significant difference in the mean score . hence it can be concluded that ESg scores of banks and IT companies are same while pharma and consumables are having only less ESG score

Section3

Regression analysis is used to test the impact of ESG components on financial performance. JMP software is used for the analysis. Results of analysis are compiled as follows:

Table 3.1 : Showing results of Regression analysis in Energy Sector

Correlation metrics	Environment	Social	Governance
ROE	.562	Insignificant	.365
ROA	.438	.476	insignificant
Income	.323	insignificant	.432
Regression H1 : ESG components have significant impact on financial performance indicators			
ROE	R square = .5080	F Ratio = 4.096 p = .0001	ESG components have a significant impact on ROE
ROA	R Square = . 5074	F ratio = 4.069 p= .0001	ESG components has significant impact on ROA
income	R square = . 4037	F ratio = 2.674 p= .0010	ESG components has significant impact on income

Source : Compiled from Jmp Software

Table 3.2: Showing results of Regression analysis in Banking Sector

Correlation metrics Dependent Variables	Environment (Independent)	Social (Independent)	Governance (Independent)
ROE	Insignificant	.7406	.4509
ROA	Insignificant	.8295	.4838
Income	Insignificant	.8010	.5057
Regression H1 : ESG components have significant impact on financial performance indicators			
ROE	R square = .7097	F Ratio = 12.22 p = .0001	ESG components have significant impact on ROE
ROA	R Square = . 8700	F ratio = 33.48 p= .0001	ESG components have significant impact on ROA
income	R square = . 7956	F ratio = 19.46 p= .0001	ESG components have significant impact on income

Table 3.3 : Showing results of Regression analysis in IT Sector

Correlation metrics	Environment	Social	Governance
ROE	Insignificant	.464	.324
ROA	Insignificant	.571	.456
Income	Insignificant	.682	Insignificant
Regression H1 : ESG components have significant impact on financial performance indicators			
ROE	R square = .6402	F Ratio = 7.39 p = .0001	ESG components have Significant impact on ROE
ROA	R Square = .6778	F ratio = 8.74 p= .0001	ESG components have Significant impact on ROA
income	R square = .8551	F ratio = 24.53 p= .0001	ESG components have Significant impact on income

Interpretation

The regression analysis shows that ESG components have significant impact on the selected financial performance indicators . In general it can be noted that social factors are influencing the financial indicators more when compared to Environment and Governance , in all the three industries (AUTO, IT and BANK) . But in case of Energy sector Environment factors are influencing the financial indicators more when compared to other two . It can also be noted that in case of banks and IT (service sector) Environmental components are not having any significance in creating impact , but in case of Auto and Energy (Manufacturing) Environment factors are having some influence.

Conclusion

The integration of ESG factors into corporate strategy has emerged as an important determinant of financial performance. In the long run for a company to succeed compliance with sustainability and ESG is crucial. Companies who are proactive in ESG matters tend to have more reputation, stakeholder engagement, less operational risk etc. In the long run there is a positive relation between ESG and financial performance. The study also shows that CRISIL ESG score is highest for banking and IT industries followed by pharma companies. As investors increasingly prioritize sustainability, companies with strong ESG practices are likely to have the capital and competitive advantage. Therefore, ESG should not be viewed as a mere compliance issue but as key component of value creation in the modern business environment

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Conflicts of interest

The authors declare that there are no conflicts of interest regarding the publication of this paper.

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