

A STUDY ON MEASURING RELATIONSHIP BETWEEN ESG SCORE AND FINANCIAL PERFORMANCE OF NIFTY 50 COMPANIES IN INDIA

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Abstract:

This study is measuring the relationship between Environmental, Social and Government (ESG) score and Financial Performance. For this research study researchers Selected 50 Companies of NIFTY Index of National Stock Exchange as sample. Data of ESG score are collected from the REFINITIV LSEG (London stock Exchange Group) business website. Financial performance related variables are computed from annual report of Company for the year of 2022-23. This study also focuses on the various sub part of ESG scores of NIFTY 50 Companies i.e.: Environmental Scores Includes Resource Use, Emissions and Innovation, Social Score Includes Workforce, Human right, Community and Product Responsibility, Governance Score Includes Management, Shareholder, Corporate Social Responsibility (CSR) Strategy. Financial performance measure through Earnings Per Share (EPS), Net Profit Ratio (NPR), Return on Equity, Return on Capital Employed and Return on Assets. We can conclude that there is no significant liner relationship between ESG score and financial performance variables, but there is correlation between financial performance of nifty 50 companies and also liner relationship between ESG performance of nifty 50 companies. It meant that whether increase or decrease in financial performance it does not necessary to increase ESG Score.

Key-words: ESG Score, financial performance, EPS, ROCE

Introduction:

The concept known as environmental, social, and governance (ESG) theory has a long history of similar, predecessor concepts both in academic literature and in the business world. For over a century, critics of the market economy, largely inspired by progressive political goals, have argued that for-profit corporations should not limit themselves to seeking profits for their shareholders, but should engage-or be required to engage-in various sorts of activism to address social problems and concerns. ESG reporting is the publication of data that explains a company's impact and added value in three areas: the environment, social

responsibility, and corporate governance. ESG is an umbrella term for components of sustainable and responsible finance. It is a framework that considers environmental, social, and governance factors in addition to financial factors when making investment decisions. It is also a process for determining how companies perform/score on each of the following factors: E, S & G, and whether or not it is a viable investment.

Environmental (E) evaluates a company's performance as a steward of the environment. It examines how its operations affect the environment and manages environmental risks. It includes both direct operations and supply chain

operations. For example, resource scarcity and management, conservation of natural resources, animal treatment, and greenhouse gas emissions.

Social criteria (S) examine a company's strengths and weaknesses in managing relationships with employees, suppliers, customers, and the communities in which it operates. These criteria include, for example, working conditions, operations in conflict zones, health and safety, employee relations, and diversity.

Governance (G) is concerned with the leadership of a company, executive pay, audits, internal controls, and shareholder rights. Investors want to know if they can put their trust in the company and what decisions are made behind closed doors. Executive pay, gender equity / equal pay, bribery and corruption, and board diversity are all covered.

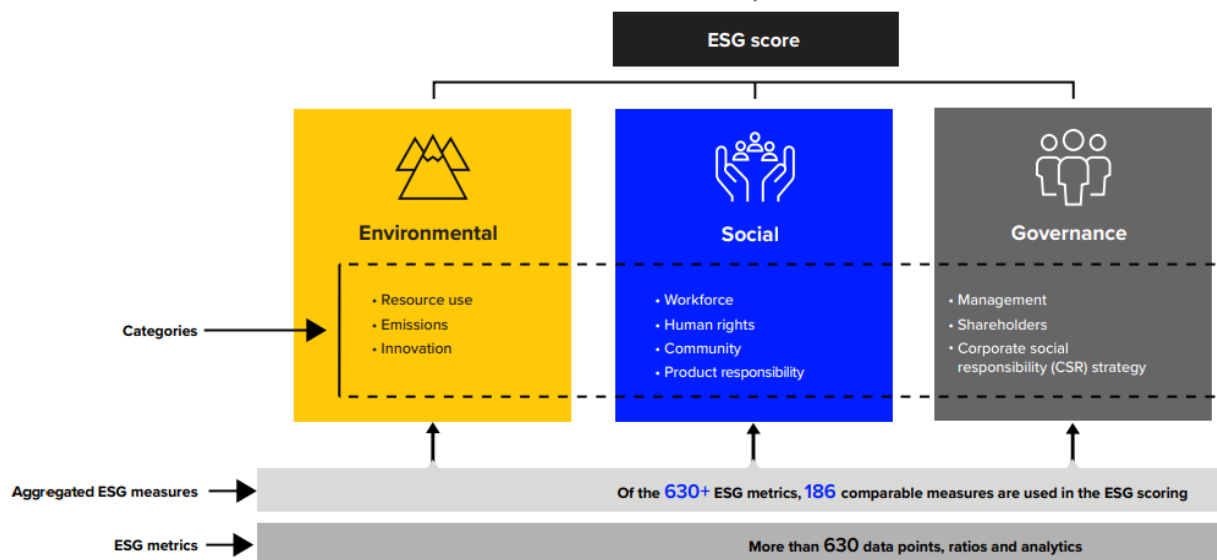
Over the last decade and a half, the idea that businesses should broaden their priorities beyond delivering profits to shareholders to include various environmental, social, and governance (ESG) goals has gained traction. Since 2004, when the term "ESG" was first used in a United Nations Global Compact report, there has been a surge of interest in the concept, including in corporate boardrooms. If the frequency with which it is invoked and discussed is any indication, ESG theory is gaining traction among policymakers, the news media, and other elite constituencies. However, the lack of rigorous agreement on what it actually requires and seeks to accomplish has left its meaning open to interpretation by various constituencies. When specific goals and outcomes are specified, they are frequently either highly contentious, (Refinitive, 2023)

limited to a specific set of circumstances, or so obvious as to be conventional wisdom (Alam & Mohamed , 2018)

Environmental, Social, and Governance (ESG) reporting is becoming more popular among organisations and communities that are socially responsible. Firms with high ESG disclosures, according to stakeholders and fund managers, produce better operating performance, higher returns, and lower firm-specific risk. The purpose of this article is to present some novel quantitative evidence of a firm's sustainability reporting in the form of non-financial voluntary disclosures. The annual and Corporate Social Responsibility (CSR) and Global Reporting Initiatives (GRI) reports contain quantitative and qualitative disclosures.

The importance of ESG consideration in investment decisions has had a massive impact on the overall sustainability of the stock market, the country, the global economy and society, and ecological balance. Companies' reckless behaviour may result in significant costs Clean-up costs in the event of a major accident, sustainability costs, resource consumption costs, and loss of productivity consumer trust, potential negative effects on employee health and morale, and obligations to local government, as well as investors.

Refinitiv's ESG scores are intended to transparently and objectively measure a company's relative ESG performance, commitment, and effectiveness across ten major themes (emissions, environmental product innovation, human rights, shareholders, and so on) using publicly available data.



Defining ESG in sub category classification.

ESG	Score Name	Definition
Environmental	Emissions	The emission reduction score measures a company's commitment and effectiveness towards reducing environmental emissions in its production and operational processes.
	Resource Use	The resource use score reflects a company's performance and capacity to reduce the use of materials, energy or water, and to find more eco-efficient solutions by improving supply chain management.
	Innovation	The innovation score reflects a company's capacity to reduce the environmental costs and burdens for its customers, thereby creating new market opportunities through new environmental technologies and processes, or eco-designed products
Social	Human Rights	The human rights score measures a company's effectiveness in terms of respecting fundamental human rights conventions.
	Product Responsibility	The product responsibility score reflects a company's capacity to produce quality goods and services, integrating the customer's health and safety, integrity and data privacy
	Workforce	The workforce score measures a company's effectiveness in terms of providing job satisfaction, a healthy and safe workplace, maintaining diversity and equal opportunities, and development opportunities for its workforce.
	Community	The community score measures the company's commitment to being a good citizen, protecting public health and respecting business ethics.
Governance	Management	The management score measures a company's commitment and effectiveness towards following best practice corporate governance principles
	Shareholders	The shareholders score measures a company's effectiveness towards equal treatment of shareholders and the use of anti-takeover devices
	CSR Strategy	The CSR strategy score reflects a company's practices to communicate that it integrates economic (financial), social and environmental dimensions into its day-to-day decision-making processes.

(Refinitive, 2023)

Literature Review:

(Balatbat, Renard, & David G. , 2012) The paper examines the financial performance of companies listed on the Australian Securities Exchange in relation to ESG (environmental, social, and governance) practices. Corporate Analysis Enhanced Responsibility conducted research that resulted in ESG scores from 2008 to 2010. (CAER). To capture profitability and equity valuation, financial performance is measured using a variety of financial ratios. Research findings show a weakly positive correlation between financial performance and ESG scores, using both 1-year and 2-year lag analyses. Researchers also discover a weak negative relationship between analyst forecasting errors and ESG scores. Portfolio returns of ESG leaders are found to be lower than those of ESG laggards, contrary to our expectations. One possible explanation for the poor results is that ESG scores do not provide enough information about true sustainability practices that have an impact on firm performance.

(Dalvadi & Gandhi, 2012) The objective of this study was to investigate the quantity and quality of voluntary environmental disclosures in the annual reports or sustainability reports of the few selected index based Indian companies listed on the stock exchange. In order to evaluate the environmental reporting practices, the categorization contained in the Global Reporting Initiatives guidelines has been used to an extent. researcher found that all the companies selected for the study were found to be at their progress towards better environmental reporting practices year by year, which was a positive sign for the country as well as a benchmark for the other companies who still have not taken initiative in this area.

The result may serve a base or the path towards better Environmental disclosures in India.

(Ramic, 2019) In this study researcher was examined the relationship between a company's financial performance and its environmental, social, and governance (ESG) performance. Researcher used ESG scores and financial data from the Thomson Reuters ASSET4 and Datastream databases to investigate this relationship. The researcher concentrated on accounting performance (ROA and ROE) and market performance (Tobin's Q). Sample spans the years 2005 to 2015 and includes publicly traded companies from around the world. After excluding financial institutions, researcher have a sample size of 12,558 observations. Research findings show that ESG (aggregate), environmental, and social performance have a positive impact on ROE. Furthermore, social performance positively affects all three of our performance indicators. Researcher also discover an inverse relationship between governance performance and Tobin's Q. The other links examined were insignificant. findings emphasize the importance of companies implementing social policies in order to improve their financial performance.

(Dongyang, Wang, & Yu, 2021) This research study examines the effects of COVID-19-related shocks on financial constraints and SDG performance in order to shed light on the impact of SDGs on economic recovery. researcher create a large sample of Chinese listed firms using quarterly firm-level accounting data from the China Stock Market & Accounting Research Database for the years 2019Q1-2021Q1, matched with data from the China Stock Exchange. SDG performance

from environmental, social, and governance (ESG) scores WIND Database, and supplemented with information on cumulative and new cases of The World Health Organization's COVID-19. Researcher make use of difference-in-differences. to look into any potential COVID-19 causal effects researcher discovered that COVID-19 causes financial constraints in businesses Furthermore, in contrast to the existing literature. investigate the supportive role of SDG performance on firm performance as determinants of SDGs. Researcher investigate the beneficial role of SDG performance on firm financial performance and demonstrate how ESG can better describe SDG performance while alleviating financial constraints. Furthermore, improved ESG performance helps both internal and external financial intermediaries overcome financial constraints. Researcher found strongly suggest that a sustainable development strategy promotes effective adaptation to financial challenges and aids in the recovery from external shocks

(Imlak, 2022) This article aims to provide quantitative evidence of a company's sustainability reporting in the form of non-financial voluntary disclosures. The disclosures were made available through the annual report, as well as reports on Corporate Social Responsibility (CSR) and Global Reporting Initiatives (GRI). Bloomberg's ESG score was a quantitative measure that covers approximately 120 factors. Aspects of the environment, society, and governance the study's Following are the companies selected for the studies.

research problem was to investigate the impact of non-market transnational sustainability strategies on firm performance The study examines nearly 510 firms' ESG scores from 2010 to 2018 across 17 countries. According to the descriptive and inductive statistical analysis, ESG compliance was more prevalent in European companies. Simultaneously, Asian firms were more disciplined in the energy sector, while the Asia pacific counterpart is more tech-oriented firm.

Research Gap:

Most of research on Environmental, Social and Governance (ESG) are conducted out of India. A few research studies conducted in India and specially on Nifty 50 Companies performance in ESG score. So, researchers have to made an attempt to measuring relationship between ESG Score and financial performance of nifty 50 companies in India.

Objective of Study:

The main objective of the study is measuring the relationship between ESG Score and Financial Performance of a Nifty 50 companies in India.

Research methodology:

The study is based on NSE Nifty 50 Companies. All Nifty 50 companies are representing stock market as the index nifty 50 is based on stock market performance of this companies. So, this companies are representing all companies.

Sr. No	Name of company	Sector	Sr. No	Name of company	Sector
1	Reliance Industries Ltd	Oil & Gas Companies	26	Dr. Reddy's Laboratories Ltd	Pharmaceuticals Companies

2	HDFC Bank Ltd	Banking Services	27	JSW Steel Ltd	Metals & Mining Companies
3	Infosys Ltd	Software & IT Services	28	Nestle India Ltd	Food & Tobacco Companies
4	Housing Development Finance Corporation Ltd	Financial Services	29	IndusInd Bank Ltd	Banking Services
5	ICICI Bank Ltd	Banking Services	30	Tata Motors Ltd	Automobiles & Auto Parts
6	Tata Consultancy Services Ltd	Software & IT Services	31	Power Grid Corporation of India Ltd	Electric Utilities & IPPs
7	Kotak Mahindra Bank Ltd	Banking Services	32	Grasim Industries Ltd	Construction Materials Companies
8	Hindustan Unilever Ltd	Personal & Household Products & Services	33	HDFC Life Insurance Company Ltd	Insurance Companies
9	Axis Bank Ltd	Banking Services	34	Divi's Laboratories Ltd	Pharmaceuticals Companies
10	Larsen & Toubro Ltd	Construction & Engineering	35	NTPC Ltd	Electric Utilities & IPPs
11	ITC Ltd	Food & Tobacco	36	Hindalco Industries Ltd	Metals & Mining Companies
12	State Bank of India	Banking Services	37	Bajaj Auto Ltd	Automobiles & Auto Parts
13	Bajaj Finance Ltd	Financial Services	38	Adani Ports and Special Economic Zone Ltd	Transport Infrastructure Companies
14	Asian Paints Ltd	Chemicals Companies	39	Cipla Ltd	Pharmaceuticals Companies
15	HCL Technologies Ltd	Software & IT Services	40	Tata Consumer Products Ltd	Food & Tobacco Companies
16	Maruti Suzuki India Ltd	Automobiles & Auto Parts	41	SBI Life Insurance Company Ltd	Insurance Companies
17	Bharti Airtel Ltd	Telecommunications Services	42	Bharat Petroleum Corporation Ltd	Oil & Gas Companies
18	Tata Steel Ltd	Metals & Mining	43	UPL Ltd	Chemicals Companies
19	Wipro Ltd	Software & IT Services	44	Britannia Industries Ltd	Food & Tobacco Companies
20	UltraTech Cement Ltd	Construction Materials	45	Oil and Natural Gas Corporation Ltd	Oil & Gas Companies
21	Mahindra and	Automobiles &	46	Eicher Motors Ltd	Automobiles &

	Mahindra Ltd	Auto Parts			Auto Parts
22	Bajaj FinServ Ltd	Insurance Companies	47	Hero MotoCorp Ltd	Automobiles & Auto Parts
23	Sun Pharmaceutical Industries Ltd	Pharmaceuticals Companies	48	Shree Cement Ltd	Construction Materials Companies
24	Titan Company Ltd	Textiles & Apparel Companies	49	Coal India Ltd	Coal Companies
25	Tech Mahindra Ltd	Software & IT Services	50	Indian Oil Corporation Ltd	Oil & Gas Companies

Hypothesis of study:

H_{01} = There is no significant relationship between ESG Score and Financial Performance of nifty 50 Companies.

Research Variables:

Following are variables identified for the study

ESG Score Variables:

Environmental	Social	Governance
1. Emissions Score	1. Workforce Score	1. Management Score
2. Resource Use Score	2. Human right Score	2. Shareholder Score
3. Innovation Score	3. Community Score	3. CSR Strategy Score
	4. Product Responsibility Score	

Financial performance variables (ratio):

1. Earnings Per Share (EPS)
2. Net Profit Ratio (NPR)
3. Return on Equity
4. Return on Capital Employed
5. Return on Assets

Sources of Data and Data Collection

This study is based on secondary data. Data related to ESG score are collected from the REFINITIV LSEG (London stock Exchange Group) business website and data related to financial performance ratio including Earning Per Share (EPS), Net Profit Ratio (NPR), Return on Equity, Return on Capital Employed and Return on Assets are calculated from the annual report of the companies for the year 2022-23.

Justification of ESG Score data:

ESG scores from Refinitiv is designed to transparently and objectively measure a company's relative ESG performance, commitment and effectiveness across 10 main themes (emissions, environmental product innovation, human rights, shareholders, etc.) based on publicly-reported data.

Refinitiv ESG scores reflect the underlying ESG data framework and are a transparent,

data-driven assessment of companies' relative ESG performance and capacity, integrating and accounting for industry materiality and company size biases. The Refinitiv ESG score measures the company's ESG performance based on verifiable reported data in the public domain. It captures and calculates over 630 company-level ESG measures, of which a subset of 186 of the most comparable and material per industry power the overall company assessment and scoring process. The underlying measures are based on considerations around comparability, impact, data availability and industry relevance that varies across each industry group. These are grouped into 10 categories that form the three pillar scores and the final ESG score, which is a reflection of the company's ESG performance, commitment and effectiveness based on publicly reported information. The category scores are rolled up into three pillar scores – environmental, social and corporate governance. ESG pillar score is a relative sum of the

category weights which vary per industry for the 'Environmental' and 'Social' categories. For 'Governance', the weights remain the same across all industries. (Refinitive, 2023)

Data Analysis

Data of ESG score are obtained from REFINITIV LSEG (London stock Exchange Group) business website, which were classified and tabulated criteria wise, mean of ESG score of all Nifty companies done. Similarly, EPS, NP, RONW, ROCE and ROA calculated by using standard formula. The researcher has made an attempt to classify ESG performance as per Sector. Finally, researcher have tried to identify correlation between ESG Score and Financial Performance. ESG score of companies is categories into four category, first one is poor performance, satisfactory performance, good performance and last one is excellent performance, it scores range is 0-25, 25-50, 50-75, 75-100 respectively.

Data Interpretation

Table: 1.1 Overall Nifty Performance of ESG Score

		N	Minimum	Maximum	Mean	Std. Deviation
Environmental	Emissions	50	20.00	99.00	69.8800	22.18534
	Resource Use	50	21.00	97.00	66.8800	23.69504
	Innovation	50	0.00	96.00	38.3400	34.98140
Social	Human Rights	50	0.00	97.00	60.1000	27.18437
	Product Responsibility	50	0.00	98.00	73.7200	23.32734
	Workforce	50	29.00	100.00	71.7000	18.02861
	Community	50	20.00	100.00	75.8400	20.34133
Governance	Management	50	4.00	100.00	52.1000	28.85873
	Shareholders	50	1.00	96.00	49.7600	27.80953
	CSR Strategy	50	10.00	98.00	66.3000	26.64525

The above table 1.1 indicates overall Nifty 50 companies Performance in respect of ESG Score.

In Environmental disclosure it includes Emissions, Resource use and Innovation, average score of which 69.88, 66.88 and 38.34 got respectively. Social Disclosure includes Human rights, Product responsibility, workforce and community each scored on an average 60.10, 73.72, 71.70 & 75.84 respectively. Workforce, Community and Management maximum score is 100 it indicates excellent performance. Social indicators got highest score compare to other Environmental and Governance score. In the all ESG disclosure in which Community disclosure has got highest score and Innovation has lowest score.

Table: 1.2 Overall Nifty Performance of ESG Score

	N	Minimum	Maximum	Mean	Std. Deviation
Environment	50	11.00	97.00	58.1000	22.86362
Social	50	26.00	94.00	69.1600	16.88056
Governance	50	17.00	92.00	53.5800	21.49142
ESG Score	50	24.00	89.00	62.3600	15.13175

Above table 1.2 shows overall ESG score of Nifty 50 Performance including Environmental, Social, Governance. ESG Score for Environment, Social and Governance are 58.10, 69.16 and 53.58 respectively. Overall average ESG score is 62.36. Social disclosure has got highest score and Governance disclosure lowest score. It means overall Nifty 50 companies focusing more on social aspects in their disclosure followed by Environment aspect and governance aspects.

Table: 1.3 Overall Financial Performance of Nifty Companies

	N	Minimum	Maximum	Mean	Std. Deviation
EPS	50	-46.18	640.77	60.0174	99.49906
NP	50	-39.17	55.22	14.5994	13.21404
RON	50	-32.57	103.12	15.6364	18.17655
ROCE	50	-4.05	60.59	15.7212	14.12103
ROA	50	-9.07	33.95	8.2306	8.53738

Table 1.3 show the Overall Financial Performance of Nifty Companies with using basic profitability ratios like EPS, NP, RON, ROCE & ROA. Average Earning per share (EPS) ratio of nifty companies are 60.01. Minimum EPS is -46.18 and maximum EPS is 640.77. Average Net profit ratio is 14.59 of nifty companies. The maximum net profit ratio is 55.22%. Average Return to net worth ratio is 15.63%. minimum return to net worth ratio is -32.57. Average return on capital employed ratio is 15.72%. in the above table maximum return to capital employed ratio is 60.59%. Average return on assets ratio of companies is 8.23%. minimum and maximum return on assets ratio is -9.07% and 33.95% respectively.

Table: 1.4 ESG Performance of NIFTY 50 Companies

Performance	Frequency of Environmental	Frequency of Social	Frequency of Governance	Frequency of ESG Score
Poor Performance	5	0	7	1
	(10%)	(0%)	(14%)	(2%)
Satisfactory Performance	12	5	17	11
	(24%)	(10%)	(34%)	(22%)
Good Performance	21	26	17	28
	(42%)	(52%)	(34%)	(56%)
Excellent Performance	12	19	9	10
	(24%)	(38%)	(18%)	(20%)
Total	50 (100%)	50(100%)	50(100%)	50(100%)

Table 1.4 shows the ESG performance of Nifty 50 companies. Most of the Nifty companies performed better as they got highest % of score in Environmental, Social, Governance and all over ESG Score. In social Score 90% companies' performance is Good and Excellent performance categories. In social performance category not, any single company include in poor performance category. The highest all over ESG score of 28 companies in good performance category. In the governance category 68% company include in Satisfactory and good performance category. In all over ESG score 76% companies include in good and Excellent performance category.

Table 1.5 Sector wise Average ESG Score

Sector of Companies	N	Environmental	Social	Governance	ESG Score
Oil & Gas Companies	4	70.00	72.00	49.25	66.00
Banking Services	6	64.33	73.83	58.83	67.00
Software & IT Services	5	64.80	88.40	72.00	77.40
Financial Services	2	22.50	54.00	39.50	44.00
Construction & Engineering	1	97.00	75.00	46.00	76.00
Food & Tobacco	4	63.50	72.00	52.25	64.75
Chemicals Companies	2	53.50	49.50	77.50	57.50
Automobiles & Auto Parts	6	58.17	65.50	50.00	59.17
Telecommunications Services	1	56.00	53.00	82.00	61.00
Metals & Mining	3	66.33	67.00	44.67	61.67
Construction Materials	3	68.67	69.33	46.33	63.67
Insurance Companies	3	11.33	46.33	46.67	41.67
Pharmaceuticals Companies	4	60.00	75.50	68.50	69.75
Textiles & Apparel Companies	1	42.00	54.00	53.00	52.00
Electric Utilities & IPPs	2	48.50	63.00	22.50	47.00
Transport Infrastructure Companies	1	90.00	73.00	41.00	69.00
Coal Companies	1	46.00	83.00	25.00	50.00
Personal & Household Products & Services	2	53.00	83.00	47.00	66.00
Total	50				

Above 1.5 table indicate the sector wise ESG Score of Nifty company. In environmental discloses Construction & Engineering sector is highest 97 score followed by transport infrastructure companies with score of 90. In Social Disclosure, Software & IT services scored highest 88.40. In Governance disclosure, Telecommunication services sector scored highest 82. In the All over ESG disclosure Software & IT services is highest 77.40 score. Considering all Environmental, Social, Governance and all over ESG Score Software & IT Services and Construction & Engineering is highest performance compare to other sector. Insurance sector companies' worst performance in all ESG score Compare to other sector companies. 50% sector has average score compare to remaining sector of companies.

Table 1.6: Sector wise performance of Environmental Score performance

Sector	Environment				Total
	Poor Performanc e	Satisfactory Performanc e	Good Performanc e	Excellent Performanc e	
Oil & Gas Companies	0	1	1	2	4
	0.0%	25.0%	25.0%	50.0%	100.0 %
Banking Services	0	0	5	1	6
	0.0%	0.0%	83.3%	16.7%	100.0 %
Software & IT Services	0	1	2	2	5
	0.0%	20.0%	40.0%	40.0%	100.0 %
Financial Services	1	1	0	0	2
	50.0%	50.0%	0.0%	0.0%	100.0 %
Construction & Engineering	0	0	0	1	1
	0.0%	0.0%	0.0%	100.0%	100.0 %
Food & Tobacco	0	1	2	1	4
	0.0%	25.0%	50.0%	25.0%	100.0 %
Chemicals Companies	0	1	1	0	2
	0.0%	50.0%	50.0%	0.0%	100.0 %
Automobiles & Auto Parts	1	2	1	2	6
	16.7%	33.3%	16.7%	33.3%	100.0 %
Telecommunication s Services	0	0	1	0	1
	0.0%	0.0%	100.0%	0.0%	100.0 %
Metals & Mining	0	0	3	0	3
	0.0%	0.0%	100.0%	0.0%	100.0 %
Construction Materials	0	0	2	1	3
	0.0%	0.0%	66.7%	33.3%	100.0 %

Insurance Companies	3	0	0	0	3
	100.0%	0.0%	0.0%	0.0%	100.0%
Pharmaceuticals Companies	0	2	1	1	4
	0.0%	50.0%	25.0%	25.0%	100.0%
Textiles & Apparel Companies	0	1	0	0	1
	0.0%	100.0%	0.0%	0.0%	100.0%
Electric Utilities & IPPs	0	1	1	0	2
	0.0%	50.0%	50.0%	0.0%	100.0%
Transport Infrastructure Companies	0	0	0	1	1
	0.0%	0.0%	0.0%	100.0%	100.0%
Coal Companies	0	1	0	0	1
	0.0%	100.0%	0.0%	0.0%	100.0%
Personal & Household Products & Services	0	0	1	0	1
	0.0%	0.0%	100.0%	0.0%	100.0%
Total	5	12	21	12	50
	10.0%	24.0%	42.0%	24.0%	100.0%

Table 1.6 Sector wise performance of Environmental Score performance. Observe above table oil & Gas we conclude that 50% Companies include in Excellent Performance Category. The metals & Mining, telecommunications Services and Personal & household Products and Services included in good performance category. We observe all nifty companies 42% companies includes good performance, 24% companies' includes excellent performance and remaining 10% companies included in poor performance.

Table 1.7: Sector wise performance of Social Score performance

Sector	Social			Total
	Satisfactory Performance	Good Performance	Excellent Performance	
Oil & Gas Companies	0	3	1	4
	0.0%	75.0%	25.0%	100.0%
Banking Services	0	4	2	6
	0.0%	66.7%	33.3%	100.0%
Software & IT Services	0	0	5	5
	0.0%	0.0%	100.0%	100.0%
Financial Services	1	0	1	2
	50.0%	0.0%	50.0%	100.0%
Construction & Engineering	0	1	0	1
	0.0%	100.0%	0.0%	100.0%

Food & Tobacco	1	1	2	4
	25.0%	25.0%	50.0%	100.0%
Chemicals Companies	1	1	0	2
	50.0%	50.0%	0.0%	100.0%
Automobiles & Auto Parts	1	3	2	6
	16.7%	50.0%	33.3%	100.0%
Telecommunications Services	0	1	0	1
	0.0%	100.0%	0.0%	100.0%
Metals & Mining	0	2	1	3
	0.0%	66.7%	33.3%	100.0%
Construction Materials	0	2	1	3
	0.0%	66.7%	33.3%	100.0%
Insurance Companies	1	2	0	3
	33.3%	66.7%	0.0%	100.0%
Pharmaceuticals Companies	0	2	2	4
	0.0%	50.0%	50.0%	100.0%
Textiles & Apparel Companies	0	1	0	1
	0.0%	100.0%	0.0%	100.0%
Electric Utilities & IPPs	0	2	0	2
	0.0%	100.0%	0.0%	100.0%
Transport Infrastructure Companies	0	1	0	1
	0.0%	100.0%	0.0%	100.0%
Coal Companies	0	0	1	1
	0.0%	0.0%	100.0%	100.0%
Personal & Household Products & Services	0	0	1	1
	0.0%	0.0%	100.0%	100.0%
Total	5	26	19	50
	10.0%	52.0%	38.0%	100.0%

Table 1.7 Sector wise performance of Social Score performance. Observe above table not any single Companies include in poor Performance Category it means all sector companies score is more than 25. The Coal Companies, Software & IT services companies and Personal & household Products and Services included in Excellent performance category. We observe all nifty companies 52% companies includes good performance, 38% companies' includes excellent performance and remaining 10% companies included in satisfactory performance.

Table 1.8: Sector wise performance of Governance Score performance

Sector	Governance				Total
	Poor Performance	Satisfactory Performance	Good Performance	Excellent Performance	
Oil & Gas Companies	1	2	0	1	4
	25.0%	50.0%	0.0%	25.0%	100.0%
Banking Services	1	0	4	1	6
	16.7%	0.0%	66.7%	16.7%	100.0%

					%
Software & IT Services	0	1	2	2	5
	0.0%	20.0%	40.0%	40.0%	100.0%
Financial Services	0	2	0	0	2
	0.0%	100.0%	0.0%	0.0%	100.0%
Construction & Engineering	0	1	0	0	1
	0.0%	100.0%	0.0%	0.0%	100.0%
Food & Tobacco	0	1	3	0	4
	0.0%	25.0%	75.0%	0.0%	100.0%
Chemicals Companies	0	0	1	1	2
	0.0%	0.0%	50.0%	50.0%	100.0%
Automobiles & Auto Parts	2	1	2	1	6
	33.3%	16.7%	33.3%	16.7%	100.0%
Telecommunications Services	0	0	0	1	1
	0.0%	0.0%	0.0%	100.0%	100.0%
Metals & Mining	0	2	1	0	3
	0.0%	66.7%	33.3%	0.0%	100.0%
Construction Materials	0	2	1	0	3
	0.0%	66.7%	33.3%	0.0%	100.0%
Insurance Companies	0	2	1	0	3
	0.0%	66.7%	33.3%	0.0%	100.0%
Pharmaceuticals Companies	0	1	1	2	4
	0.0%	25.0%	25.0%	50.0%	100.0%
Textiles & Apparel Companies	0	0	1	0	1
	0.0%	0.0%	100.0%	0.0%	100.0%
Electric Utilities & IPPs	2	0	0	0	2
	100.0%	0.0%	0.0%	0.0%	100.0%
Transport Infrastructure Companies	0	1	0	0	1
	0.0%	100.0%	0.0%	0.0%	100.0%
Coal Companies	1	0	0	0	1
	100.0%	0.0%	0.0%	0.0%	100.0%
Personal & Household Products & Services	0	1	0	0	1
	0.0%	100.0%	0.0%	0.0%	100.0%

Total	7	17	17	9	50
	14.0%	34.0%	34.0%	18.0%	100.0%

Table 1.8 Sector wise performance of Governance Score performance. Observe above table Personal & household Products and Services, transport infrastructure companies and Construction & Engineering are included in satisfactory performance category. we conclude that 68% Companies include in satisfactory and good Performance Category. The Coal companies and electric utilities & IPPs sector companies included in poor performance category. We observe all nifty companies 34% companies includes good performance, 18% companies' includes excellent performance and 14% companies included in poor performance.

Table 1.9: Sector wise performance of all over ESG Score performance

Sector	ESG Score				Total
	Poor Performance	Satisfactory Performance	Good Performance	Excellent Performance	
Oil & Gas Companies	0	0	3	1	4
	0.0%	0.0%	75.0%	25.0%	100.0%
Banking Services	0	1	4	1	6
	0.0%	16.7%	66.7%	16.7%	100.0%
Software & IT Services	0	0	2	3	5
	0.0%	0.0%	40.0%	60.0%	100.0%
Financial Services	0	1	1	0	2
	0.0%	50.0%	50.0%	0.0%	100.0%
Construction & Engineering	0	0	0	1	1
	0.0%	0.0%	0.0%	100.0%	100.0%
Food & Tobacco	0	0	4	0	4
	0.0%	0.0%	100.0%	0.0%	100.0%
Chemicals Companies	0	0	2	0	2
	0.0%	0.0%	100.0%	0.0%	100.0%
Automobiles & Auto Parts	1	1	2	2	6
	16.7%	16.7%	33.3%	33.3%	100.0%
Telecommunications Services	0	0	1	0	1
	0.0%	0.0%	100.0%	0.0%	100.0%
Metals & Mining	0	0	3	0	3
	0.0%	0.0%	100.0%	0.0%	100.0%

Construction Materials	0	1	2	0	3
	0.0%	33.3%	66.7%	0.0%	100.0%
Insurance Companies	0	3	0	0	3
	0.0%	100.0%	0.0%	0.0%	100.0%
Pharmaceuticals Companies	0	1	1	2	4
	0.0%	25.0%	25.0%	50.0%	100.0%
Textiles & Apparel Companies	0	0	1	0	1
	0.0%	0.0%	100.0%	0.0%	100.0%
Electric Utilities & IPPs	0	2	0	0	2
	0.0%	100.0%	0.0%	0.0%	100.0%
Transport Infrastructure Companies	0	0	1	0	1
	0.0%	0.0%	100.0%	0.0%	100.0%
Coal Companies	0	1	0	0	1
	0.0%	100.0%	0.0%	0.0%	100.0%
Personal & Household Products & Services	0	0	1	0	1
	0.0%	0.0%	100.0%	0.0%	100.0%
Total	1	11	28	10	50
	2.0%	22.0%	56.0%	20.0%	100.0%

Table 1.9 Sector wise performance of all over ESG Score performance. Observe above table Personal & Household Products & Services, Transport Infrastructure Companies, Textiles & Apparel Companies, Metals & Mining, Telecommunications Services, Chemicals Companies and Food & Tobacco companies includes in good performance Category. The Coal Companies, Electric Utilities & IPPs and Insurance Companies included in Satisfactory performance category. We observe all nifty companies 56% companies includes good performance, 20% companies' includes excellent performance, 22% companies included in Satisfactory performance and only 2% companies included in poor performance Category.

Table 1.10: Correlations table

H_{01} = There is no significance relationship between ESG Score and financial performance of Selected Companies.

Correlations Test

		Environment	Social	Governance	ESG Score	EPS	NP	RON	ROCE	ROA
Environment	Pearson Correlation									
	Sig. (2-tailed)									
	N									
Social	Pearson Correlation	.591**								
	Sig. (2-tailed)	0.000								
	N	50								
Governance	Pearson Correlation	0.248	.309*							
	Sig. (2-tailed)	0.082	0.029							
	N	50	50							
ESG Score	Pearson Correlation	.786**	.824**	.665**						
	Sig. (2-tailed)	0.000	0.000	0.000						
	N	50	50	50						
EPS	Pearson Correlation	0.158	0.115	-0.073	0.105					
	Sig. (2-tailed)	0.273	0.424	0.613	0.467					
	N	50	50	50	50					
NP	Pearson Correlation	-0.103	0.169	-0.189	-0.029	0.127				
	Sig. (2-tailed)	0.477	0.240	0.188	0.844	0.379				

	N	50	50	50	50	50				
RON	Pearson Correlation	-0.023	0.226	-0.067	0.060	.296*	.329*			
	Sig. (2-tailed)	0.875	0.114	0.643	0.681	0.037	0.020			
	N	50	50	50	50	50	50			
ROCE	Pearson Correlation	0.053	0.220	0.118	0.143	0.268	0.256	.832**		
	Sig. (2-tailed)	0.713	0.124	0.413	0.321	0.060	0.072	0.000		
	N	50	50	50	50	50	50	50		
ROA	Pearson Correlation	0.019	0.269	0.025	0.102	0.264	.353*	.809**	.922**	
	Sig. (2-tailed)	0.899	0.059	0.861	0.482	0.064	0.012	0.000	0.000	
	N	50	50	50	50	50	50	50	50	
**. Correlation is significant at the 0.01 level (2-tailed).										
*. Correlation is significant at the 0.05 level (2-tailed).										

Above table 1.10 show correlation analysis between ESG Score and financial performance ratio of Nifty Companies. We can observe above table indicate that there is no significant relationship between ESG score and financial performance ratio, but there is correlation between financial performance of nifty 50 companies and also liner relationship between ESG performance of nifty 50 companies. It meant that whether increase or decrease in financial performance it does not necessary to increase ESG Score.

Conclusion:

We can be concluded on basis of the overall ESG score, it can be said that Companies under the sector of Software & IT Services, Construction & Engineering, and pharmaceuticals sector scored higher compared to other sectors. Thus, the above three sectors are better in disclosing their ESG aspects. However, companies come under the sectors like insurance and financial services not performing well in three aspects i.e., ESG

It can be concluded that there is no significant linear relationship between ESG score and financial performance variables, but there is a correlation between financial performance of nifty 50 companies and also a linear relationship between ESG performance of nifty 50 companies. It meant that whether an increase or decrease in financial performance it does not necessary to increase the ESG Score.

As far as we consider Environment aspect only, companies under the sector of financial services, Automobiles & Auto parts and Insurance companies performed poorly in their ESG disclosure.,

as far as we consider social aspects of the disclosure, 90% of the companies performed better and excellent performance and Companies under the sector of software & IT services are found to be excellent.

Companies that come under the sector of Banking services, software & IT Services and the Pharmaceuticals sector performed better in governance aspects compared to other sector companies. Comparatively,

companies that come under the Oil & Gas and construction materials sector performed poor in governance aspects.

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