Analyzing the Relationship between Environmental, Social, and Governance (ESG) Factors and Stock Market Performance in India: A Comprehensive Study

A PROJECT

Submitted by

Joel Jomon

Reg. No. 2120343

Under the guidance of

Dr. Rameesha Kalra

Associate Professor, School of Business and Management

In Partial Fulfillment of the Requirements for the Award of the Degree of

BACHELOR OF BUSINESS ADMINISTRATION

SCHOOL OF BUSINESS AND MANAGEMENT

CHRIST (Deemed to be University)

BENGALURU

CERTIFICATE

This is to certify that the project submitted by Joel Jomon (Reg.No:2120343) titled "Analyzing the Relationship between Environmental, Social, and Governance (ESG) Factors and Stock Market Performance in India: A Comprehensive Study" submitted to CHRIST (Deemed to be University), in partial fulfilment of the requirements for the award of the Degree of Bachelor of Business Administration, is a record of original study undertaken by Joel Jomon, during the period 2023 – 2024 in the School of Business and Management at CHRIST (Deemed to be University), Bangalore, under my supervision and guidance. The project has not formed the basis for award of any Degree / Diploma / Associate ship / Fellowship or other similar title of recognition to any other University.

Place: Bengaluru

Date:

Dr. Rameesha Kalra
Associate Professor,
School of Business and Management

Dr. Anuradha R,
Head, School of Business and Management

DECLARATION

I, Joel Jomon, hereby declare that the project, titled "Analyzing the Relationship between Environmental, Social, and Governance (ESG) Factors and Stock Market Performance in India: A Comprehensive Study" submitted to CHRIST (Deemed to be University), in partial fulfilment of the requirements for the award of the Degree of Bachelor of Business Administration is a record of original and independent study undertaken by me during 2023–2024 under the supervision and guidance of Dr. Rameesha Kalra, School of Business and Management. I also declare that this dissertation has not been submitted for the award of any degree, diploma, associateship, fellowship or other title to any other Institution/University.

Place: Bengaluru

Date: **Joel Jomon (2120343)**

ACKNOWLEDGEMENT

I, Joel Jomon would like to express my profound gratitude to all those who have been instrumental in the preparation of this research Project Report. I wish to place on records, our deep gratitude to my project guide, Dr. Rameesha Kalra, for guiding me through this project with valuable and timely advice. I would like to thank Dr. (Fr). Joesph C C, Vice Chancellor, CHRIST (Deemed to be University), Dr. Jain Mathew, Dean and Anuradha R, Head - School of Business and Management for their encouragement.

Last but not the least; I would like to thank my parents and friends for their constant help and support.

Joel Jomon

TABLE OF CONTENTS

Chapter I
Introduction

1.1 Introduction

The landscape of financial markets is undergoing a significant transformation, driven by a growing recognition of the interconnectedness between corporate practices, societal well-being, and environmental sustainability. Investors are increasingly seeking to understand and integrate Environmental, Social, and Governance (ESG) factors into their decision-making processes, looking beyond traditional financial metrics to assess a company's long-term value creation potential. This shift reflects a profound understanding that companies operating responsibly, with due consideration for their impact on stakeholders and the environment, are better positioned to navigate future challenges and generate sustainable returns.

1.2 Understanding ESG:

ESG factors encompass a broad spectrum of non-financial metrics that assess a company's performance across three key dimensions:

- Environmental: This dimension evaluates a company's impact on the natural world, encompassing factors such as climate change mitigation, resource management, pollution control, and biodiversity conservation.
- Social: This dimension examines a company's relationship with its stakeholders, including employees, communities, customers, and suppliers. It considers aspects like labor practices, human rights, diversity and inclusion, product safety, and community engagement.
- Governance: This dimension assesses a company's internal structures and processes, focusing on board composition, executive compensation, transparency, ethics, anti-corruption measures, and risk management practices.

1.3 Three pillars of ESG

Environmental, Social, and Governance (ESG) factors refer to a set of non-financial metrics that are used to assess the sustainability and ethical impact of a company's operations and business practices. These factors are increasingly recognized as important determinants of long-term financial performance, risk management, and shareholder value creation. Let's break down each component of ESG in research terms:

1. **Environmental Factors:** Environmental factors in ESG research encompass various aspects of a company's environmental impact and sustainability practices. Researchers may examine indicators such as carbon emissions, energy efficiency, water usage, waste management, pollution levels, and adherence to environmental regulations. Environmental research often involves assessing a company's efforts to mitigate climate change, conserve natural resources, and minimize ecological footprint through initiatives such as renewable energy adoption, sustainable supply chain management, and environmental certifications.
2. **Social Factors:** Social factors in ESG research focus on how companies interact with and impact society, including employees, customers, communities, and other stakeholders. Social research may encompass areas such as labor practices, human rights, diversity and inclusion, community engagement, product safety, and supply chain ethics. Researchers may analyze indicators such as employee turnover rates, employee satisfaction, workforce diversity, community investment, philanthropic activities, and compliance with labor standards and human rights conventions.
3. **Governance Factors:** Governance factors in ESG research pertain to the structure, oversight, and transparency of corporate governance mechanisms within a company. Governance research examines issues related to board composition, executive compensation, shareholder rights, audit quality, risk management practices, and ethical conduct. Researchers may assess governance indicators such as board independence, CEO pay ratio, shareholder activism, whistleblower protection, regulatory compliance, and adherence to corporate governance codes and standards.

Analyzing ESG factors involves collecting and analyzing data from various sources, including corporate disclosures, sustainability reports, regulatory filings, third-party ESG ratings, and stakeholder surveys.

Quantitative research methods in ESG analysis include statistical analysis, regression modeling, correlation analysis to quantify the relationship between ESG factors and financial performance indicators such as stock returns, volatility, and risk-adjusted measures. Qualitative research methods may involve case studies, interviews, focus groups, and content analysis to explore the qualitative aspects of ESG practices, stakeholder perceptions, and corporate governance dynamics.

Overall, ESG research aims to provide empirical evidence and insights into the interplay between environmental, social, and governance factors and their impact on corporate behavior, financial markets, and sustainable development goals. By integrating ESG considerations into investment decisions, corporate strategies, and policy frameworks, researchers seek to promote responsible investment practices, enhance corporate accountability, and foster sustainable and inclusive economic growth.

1.4 ESG and the Indian Stock Market:

The Indian stock market, boasting one of the fastest-growing economies in the world, is witnessing a rising interest in ESG investing. This trend is driven by several factors, including:

- Growing awareness of sustainability challenges: India faces substantial environmental and social challenges, such as climate change, water scarcity, and income inequality. Investors are increasingly concerned about how companies manage these risks and contribute to solutions.
- Regulatory push: The Securities and Exchange Board of India (SEBI) has implemented mandatory ESG reporting requirements for certain listed companies, further promoting transparency and accountability.
- Shifting investor preferences: Millennial and Gen Z investors, constituting a significant portion of the Indian investor base, prioritize sustainable investments aligned with their values.
- Performance potential: Studies suggest a positive correlation between strong ESG performance and superior financial returns, making ESG integration an attractive proposition for investors seeking alpha.

1.5 Rationale for the Study:

Despite the growing interest in ESG in India, comprehensive research on its relationship with stock market performance remains limited. This study aims to bridge this gap by providing a thorough analysis of how ESG factors influence the financial performance of companies listed on the Indian stock exchanges.

1.6 Objectives of the Study:

- Examine the overall relationship between ESG performance and stock market returns in India.
- Investigate the influence of individual ESG factors (environmental, social, and governance) on stock returns.
- Analyze the impact of ESG on different industry sectors within the Indian market.
- Explore the role of specific ESG metrics and ratings in influencing investor behavior.
- Develop insights and recommendations for investors, companies, and policymakers regarding ESG integration in the Indian context.

1.7 Significance of the Study

Understanding the relationship between ESG factors and stock market performance in India is essential for various stakeholders, including investors, corporations, policymakers, and civil society. For investors, insights into the ESG performance of companies can inform investment decisions, portfolio allocation strategies, and risk management practices. Corporations can benefit from improved ESG performance through enhanced reputation, access to capital, talent attraction, and long-term competitiveness. Policymakers can use empirical evidence on the linkages between ESG factors and financial markets to design effective regulatory frameworks, incentives, and policy interventions to promote sustainable development and responsible corporate behavior. Civil society organizations play a crucial role in advocating for corporate accountability, transparency, and sustainability, leveraging ESG data to engage stakeholders and drive positive change.

1.8 Background and Rationale

The concept of ESG encompasses a broad spectrum of considerations that extend beyond traditional financial metrics. Environmental factors pertain to a company's impact on the natural environment, including its carbon footprint, resource usage, pollution levels, and efforts towards sustainability.

Social factors involve the company's relationships with its employees, customers, suppliers, and local communities, encompassing issues such as labor practices, human rights, diversity and inclusion, and community engagement. Governance factors focus on the structure and oversight of corporate governance, including board composition, executive compensation, transparency, and adherence to ethical standards.

The integration of ESG considerations into investment decisions has gained traction globally, driven by a growing recognition of the interconnectedness between corporate sustainability practices and financial performance. Investors increasingly view ESG factors as material to long-term financial performance, risk management, and shareholder value creation. Studies have indicated that companies with strong ESG performance tend to exhibit lower volatility, higher resilience to external shocks, and better long-term financial returns compared to their peers with weaker ESG performance.

In the Indian context, the relevance of ESG factors is particularly pronounced due to the country's diverse socio-economic landscape, environmental challenges, and evolving regulatory framework. India faces significant environmental issues such as air and water pollution, deforestation, and climate change impacts, exacerbated by rapid urbanization and industrial growth. Social challenges include income inequality, access to education and healthcare, labor rights, and social inclusion. Moreover, governance issues such as corruption, regulatory compliance, and corporate transparency have also been areas of concern.

This research project has the potential to make significant contributions to various stakeholders:

- Investors: By providing evidence-based insights on the relationship between ESG and financial performance, the study can help investors make informed investment decisions and integrate ESG factors into their portfolio strategies.
- Companies: The study can provide valuable guidance to Indian companies regarding the potential benefits of improving their ESG performance and the impact it can have on their financial standing and attractiveness to investors.
- Policymakers: The research findings can inform policymakers in developing effective regulations and initiatives to promote responsible corporate practices and encourage sustainable investments in the Indian market.

1.9 Implications of the study

The implications of the study on the relationship between Environmental, Social, and Governance (ESG) factors and stock market performance in India are far-reaching, with significant ramifications for a diverse array of stakeholders. For investors, the findings underscore the importance of incorporating ESG factors into their decision-making processes, recognizing the positive correlation between robust ESG practices and long-term stock market performance. Sector-specific variations suggest that diversifying portfolios based on ESG considerations can mitigate risks. Adopting a long-term perspective is advisable, given that the positive effects of ESG integration may take time to manifest. Businesses stand to gain a competitive advantage by prioritizing ESG factors, attracting investments, and building stakeholder trust. A focus on material ESG factors aligned with core business operations can yield meaningful improvements in both ESG performance and stock market outcomes. Enhanced transparency and disclosure practices further contribute to investor confidence. Policymakers play a crucial role in fostering ESG integration through well-designed regulatory frameworks, promoting sustainable practices that contribute to long-term economic stability. From a societal perspective, the study emphasizes the intertwined nature of financial interests and environmental/social responsibility, highlighting the potential for ESG practices to foster sustainable development and contribute to a more resilient and socially responsible future in India.

This research aims to contribute to the growing body of literature on ESG investing and sustainable finance by providing empirical evidence on the relationship between ESG factors and stock market performance in the context of India. By elucidating the economic, social, and environmental implications of ESG integration, the study seeks to inform investment decisions, corporate strategies, and policy initiatives aimed at promoting sustainable development and responsible investment practices in India's dynamic capital markets.

Chapter II

Review of Literature

2.1 Introduction

Environmental, Social, and Governance (ESG) factors have gained significant attention in recent years as investors and companies recognize their potential impact on stock market performance and long-term sustainability. This literature review explores the relationship between ESG factors and stock market performance in India by synthesizing findings from various research articles. The analysis aims to shed light on the complex dynamics and implications of ESG considerations on Indian stock markets.

1. ESG Factors and Their Impact on Indian Stock Markets

To understand the relationship between ESG factors and stock market performance in India, it is essential to grasp the nature of these factors. ESG factors encompass environmental sustainability, social responsibility, and effective corporate governance. These factors are increasingly considered by investors as indicators of a company's overall health and future prospects.

In the study by Kumar et al. (2021) [1], the authors argue that ESG factors in India are gaining traction, primarily due to increased awareness of environmental issues and the rise of socially responsible investing. They find that Indian companies that perform well on ESG metrics tend to attract more investment, suggesting a positive correlation between ESG performance and stock market performance.

2. ESG Prioritization and Investment Decisions

Investors in India, like their global counterparts, face the challenge of prioritizing ESG factors in their investment decisions. The study by Karmakar and Sarkar (2016) [2] introduces the concept of fuzzy Analytical Hierarchy Process (AHP) to assess how investors in India prioritize ESG factors. They find that environmental factors are considered the most important, followed by governance and social factors. This prioritization can influence investment decisions and potentially impact stock market performance.

3. ESG Performance and Financial Outcomes

A critical question in the literature is whether strong ESG performance translates into better financial outcomes for Indian companies. Chaudhary et al. (2020) [7] examine this relationship and find a positive association between ESG performance and financial performance in the Indian context.

Their findings suggest that companies that prioritize ESG factors may experience enhanced profitability and long-term stability, thereby positively influencing stock market performance.

4. COVID-19 and ESG Performance

The COVID-19 pandemic had a profound impact on global financial markets, including those in India. Pahuja and Rathi (2021) [10] investigate whether ESG-oriented portfolios in India were more resilient during the pandemic. Their study reveals that ESG portfolios exhibited better risk-adjusted performance during the crisis, underscoring the potential benefits of ESG considerations during periods of market turbulence.

5. Materiality of ESG Factors

The concept of materiality, which relates to the significance of specific ESG factors for a company's business, is central to ESG analysis. Heijningen and van den Heuvel (2019) [15] explore the materiality of ESG factors in India and find that material ESG factors indeed have a significant impact on stock performance. This suggests that investors should focus on the most relevant ESG factors to make informed investment decisions.

6. ESG Disclosure and Transparency

Transparency and disclosure of ESG-related information by Indian companies are crucial for investors to assess their ESG performance. Bhattacharyya (2019) [5] examines the disclosure practices of Indian firms and highlights the need for improved reporting. Enhanced ESG disclosure can foster investor confidence and provide more accurate signals for stock market performance.

7. Government Initiatives and ESG Integration

Government policies and initiatives play a vital role in shaping the ESG landscape in India. Yadav et al. (2020) [13] discuss the impact of regulatory changes and the influence of government-led sustainability programs on ESG integration in Indian businesses. These initiatives can drive companies to improve their ESG performance, potentially leading to positive outcomes for investors and the stock market.

8. Prioritization of ESG Factors in India (15):

The study employs a Fuzzy Analytical Hierarchy Process (AHP) to assess how investors prioritize ESG factors in India. This research underscores the importance of understanding investor preferences and decision-making processes concerning ESG factors, providing valuable insights into the nuances of ESG integration in the Indian market.

9. Impact of ESG Factors on Stock Prices and Investment Performance (16):

Mahapatra and Das investigate the impact of ESG factors on stock prices and investment performance in India. Their findings shed light on the significance of ESG considerations in driving investment outcomes, suggesting a potential link between ESG performance and financial returns.

10. ESG Impact on Financial Performance in India (17):

Sharma and Rao explore the relationship between ESG practices and financial performance in India. Their study reveals a positive correlation between ESG initiatives and financial outcomes, highlighting the dual benefit of pursuing sustainable practices for both environmental stewardship and financial returns.

11. Board Composition, Environmental Performance, and Firm Financial Performance (18):

Bansal and Clelland examine the relationship between board composition, environmental performance, and firm financial performance. While not specific to India, this study offers insights into the broader dynamics of corporate governance and sustainability, which may inform similar discussions within the Indian context.

12. Value of Corporate Social Responsibility (CSR) in China (19):

Cheng et al. investigate the value of Corporate Social Responsibility (CSR) in China and its impact on stock market performance. While the focus is on China, the findings may offer relevant insights for understanding similar dynamics in the Indian market, given the shared emphasis on sustainability.

13. Corporate Governance and the Cost of Equity (20):

El Ghoul, Guedri, and Kwok analyze the relationship between corporate governance and the cost of equity. Although not India-specific, their findings contribute to understanding the broader implications of corporate governance practices on financial metrics, which are pertinent to ESG discussions.

14. ESG and Financial Performance: The Evidence (21):

Friede, Busch, and Bassen conduct a comprehensive analysis of the relationship between ESG factors and financial performance. Their study synthesizes existing evidence, providing valuable insights into the global landscape of ESG integration and its implications for investors.

15. Value Maximization, Stakeholder Theory, and Corporate Objective (22):

Jensen explores competing perspectives on corporate objectives, including value maximization and stakeholder theory. While not India-centric, this theoretical framework offers a foundation for understanding the broader context in which ESG considerations intersect with corporate goals.

16. Meta-Analysis of Corporate Social Responsibility Studies (23):

Kempf and Stark conduct a meta-analysis of corporate social responsibility studies to assess the impact of ESG factors on stock prices. Their findings contribute to understanding the aggregated evidence regarding the relationship between sustainability practices and financial performance.

17. ESG Investing in India: Current Trends and Future Prospects (24):

Agrawal and Singh provide a review of current trends and future prospects of ESG investing in India. This study offers valuable insights into the evolving landscape of sustainable finance within the Indian context, identifying key opportunities and challenges.

18. ESG Factors and Stock Returns in India (25):

Gupta and Sharma empirically analyze the relationship between ESG factors and stock returns in India. Their findings contribute to understanding the financial implications of ESG integration, offering insights into the investment value of sustainability initiatives.

19. Role of ESG Factors in Investment Decision Making in India (26):

Jain and Kumar examine the role of ESG factors in investment decision-making in India. Their study provides insights into how investors perceive and incorporate sustainability criteria into their investment strategies, shaping market dynamics.

20. Impact of ESG Factors on Firm Valuation in India (27):

Singh and Rani investigate the impact of ESG factors on firm valuation in India. Their findings offer empirical evidence on the relationship between sustainability performance and market valuation, highlighting the financial relevance of ESG considerations.

21. ESG Investing in India: Challenges and Opportunities (28):

Narasimhan and Raj explore the challenges and opportunities associated with ESG investing in India. This study identifies barriers to ESG adoption and suggests strategies for overcoming them, informing stakeholders about the path towards sustainable finance.

22. ESG Disclosure and Firm Performance in India (29):

Kumar and Sharma empirically examine the relationship between ESG disclosure and firm performance in India. Their findings underscore the importance of transparent ESG reporting in driving positive financial outcomes, fostering investor confidence.

23. ESG Integration and Corporate Performance in India (30):

Dasgupta and Mitra conduct an empirical analysis of ESG integration and corporate performance in India. Their study provides insights into the business case for sustainability, highlighting the potential benefits for firms embracing ESG principles

The relationship between Environmental, Social, and Governance (ESG) factors and stock market performance in India has been a subject of growing interest in academic research. A study by Mahapatra and Das (2023) investigates the impact of ESG factors on stock prices and investment performance. Their findings contribute to the understanding of how these factors influence financial outcomes in the Indian context. Sharma and Rao (2022) explore the intersection of environmental responsibility and financial performance in India, emphasizing the positive correlation between ESG practices and financial outcomes.

This aligns with the broader global discourse on the dual benefits of pursuing sustainability initiatives. Bansal and Clelland (2014) delve into the relationship between board composition, environmental performance, and firm financial performance.

This study provides valuable insights into the role of governance structures in mediating the impact of ESG factors on stock market outcomes. Cheng, Liu, and Shen (2018) focus on China but offer relevant insights into the value of corporate social responsibility in the stock market, providing a comparative perspective that enriches the literature on ESG factors and financial performance.El Ghoul, Guedri, and Kwok (2011) explore corporate governance and its effect on the cost of equity, shedding light on how governance practices may influence financial metrics. Friede, Busch, and Bassen (2015) contribute evidence regarding the relationship between ESG factors and financial performance, offering a comprehensive view of the subject matter.

Jensen (2002) provides a theoretical framework by discussing value maximization, stakeholder theory, and the corporate objective. This theoretical foundation is crucial for understanding the underlying principles that guide corporate behavior and, consequently, stock market performance. Kempf and Stark (2019) conduct a meta-analysis of corporate social responsibility studies, evaluating the impact of ESG factors on stock prices. This comprehensive review offers a consolidated view of existing research findings.

Agrawal and Singh (2020), Gupta and Sharma (2019), Jain and Kumar (2020), Singh and Rani (2022), and Narasimhan and Raj (2018) present empirical studies specifically focused on the Indian context. These studies analyze the relationship between ESG factors and stock returns, firm valuation, challenges, and opportunities in ESG investing in India. Furthermore, Kumar and Sharma (2021) investigate the relationship between ESG disclosure and firm performance in India, providing insights into the importance of transparency in corporate sustainability practices.

Finally, Dasgupta and Mitra (2021) contribute to the literature by conducting an empirical analysis on ESG integration and corporate performance in India, furthering the understanding of how ESG considerations are integrated into business strategies and impact financial outcomes in the Indian market.

Overall, the reviewed literature underscores the growing importance of ESG factors in shaping stock market performance in India. From empirical analyses to theoretical frameworks, these studies collectively contribute to a deeper understanding of the relationship between sustainability practices and financial outcomes, providing valuable insights for investors, policymakers, and corporate stakeholders navigating the evolving landscape of sustainable finance

The literature review highlights the growing importance of ESG factors in the Indian stock market. Evidence from various studies suggests a positive relationship between ESG performance and stock market performance. Investors are increasingly recognizing the value of ESG considerations in making investment decisions. Prioritization of ESG factors, the materiality of ESG factors, and ESG disclosure practices are critical aspects that influence this relationship. Moreover, during times of market volatility, such as the COVID-19 pandemic, ESG-oriented portfolios demonstrate resilience, reinforcing the argument for integrating ESG considerations into investment strategies. Government initiatives and regulatory changes further promote ESG integration in Indian businesses, driving sustainable practices and potentially enhancing stock market performance.

2.2 Conclusion

In conclusion, the research reviewed here underscores the significance of ESG factors in shaping the Indian stock market's performance. As ESG considerations continue to evolve and gain prominence, investors, companies, and policymakers in India must adapt to this changing landscape to achieve both financial success and long-term sustainability.

Further research is needed to delve deeper into specific ESG factors and their distinct impacts on Indian stock markets, as well as the evolving regulatory framework surrounding ESG in India.

Chapter III

Research Design

3.1 Type of Research:

This research project is primarily quantitative and empirical in nature. It involves the analysis of numerical data to understand the relationship between Environmental, Social, and Governance (ESG) factors and stock market performance in India.

3.2 Population:

The population in this context would include 30 publicly traded companies on Indian stock exchanges that have relevant ESG and stock market data available.

3.3 Period of Study:

A minimum of 10 years of data is taken for time series analysis to understand long-term trends.

3.4 Type of Data:

The primary data types include ESG metrics such as environmental score, social score, governance score and the overall ESG score and stock market data (stock prices, indices),

3.5 Hypothesis based on the Type of Research:

·Null Hypothesis (H0): There is no significant relationship between ESG factors and stock market performance in India.

Alternative Hypothesis (H1): There is a significant positive relationship between ESG factors and stock market performance in India.

3.6 Sampling Technique:

Given the large number of publicly traded companies in India, a stratified random sampling approach can be employed, where companies are categorized by industry sectors to ensure representation from various sectors.

3.7 Sample Size:

The representative sample size consists of 30 Companies.

3.8 Source of Data:

Data sources is found on financial databases such as Bloomberg, ESG data providers such as CRISIL, annual reports, sustainability reports, government publications, and industry-specific reports.

3.9 Tools for Analysis of Data:

1. **Correlation Analysis:** To examine the strength and direction of the relationship between ESG metrics and stock market performance.

2. **Regression Analysis:** To quantify the impact of ESG factors on stock market returns and to control for potential confounding variables.

3. **Johansen Cointegration Test:** Johansen test analyzes long-term link between ESG and stock performance.

4. **Granger Causality Test**: Granger Causality Test sees if ESG metrics cause stock price movements.

3.10 Limitations of the Study

The research project is likely to face several limitations, which should be acknowledged and addressed to ensure the credibility and validity of the study:

1. **Limited Historical Data:** Availability of comprehensive historical ESG data for Indian companies may be limited, potentially restricting the ability to conduct long-term analyses.

2. **Changing ESG Standards**: ESG reporting and standards may evolve over time, making it challenging to compare data across different periods. Researchers must account for changes in reporting practices.

3. **Sustainability Reporting Practices:** The quality and extent of sustainability reporting by Indian companies may vary widely, making it difficult to compare ESG performance consistently.

4. **Limited Qualitative Insights**: While quantitative data is crucial, qualitative insights may provide a more comprehensive understanding of ESG practices. However, conducting qualitative research can be resource-intensive.

Chapter IV

Analysis and Interpretation

4.1 Descriptive Statistics

Descriptive statistics are a set of tools used to summarize and describe the main features of a dataset without drawing any conclusions or inferences beyond the data itself. They help us understand the central tendency, spread, and distribution of the data and identify potential patterns or trends.

Date: 02/22/24 Time: 23:37
Sample: 1 30

	STOCK_PRI	SOCIAL_SC	GOVERNAN	ESG_SCORE	ENVIRONM
Mean	1830.913	54.66667	68.96667	59.40000	51.86667
Median	509.9664	54.00000	70.00000	59.50000	52.50000
Maximum	22063.35	72.00000	81.00000	76.00000	79.00000
Minimum	11.64467	29.00000	51.00000	39.00000	23.00000
Std. Dev.	4453.698	10.86701	8.466907	10.20345	15.63756
Skewness	3.660815	-0.326759	-0.459543	-0.023209	0.036161
Kurtosis	16.07257	2.552123	2.107951	2.289525	2.245065
Jarque-Bera	280.6230	0.784599	2.050586	0.633661	0.718948
Probability	0.000000	0.675502	0.358691	0.728454	0.698044
Sum	54927.39	1640.000	2069.000	1782.000	1556.000
Sum Sq. Dev.	5.75E+08	3424.667	2078.967	3019.200	7091.467
Observations	30	30	30	30	30

Interpretation:

- The average stock price is ₹1830.91, with a wide range from ₹11.65 to ₹22063.35. This suggests significant variation in company sizes or stock performance.
- The environmental, social and governance scores all range from 23 to 79, with means around 50-60. The standard deviations are smaller than in the stock prices, indicating less variability.
- **Skewness and Kurtosis:** Most variables have some positive skewness, meaning there are more observations towards the lower end. Kurtosis is generally close to 3, indicating a normal distribution.
- **Jarque-Bera Test:** The p-values for all variables are above 0.05, suggesting that the data does not deviate significantly from a normal distribution.

4.2 Regression Analysis

A **regression** analysis is a statistical technique that helps you understand the relationship between two or more variables. It does this by creating a model that predicts the value of one variable (called the dependent variable) based on the values of other variables (called independent variables).

Dependent Variable: STOCK_PRICE_AVG
Method: Least Squares
Date: 02/22/24 Time: 23:22
Sample: 1 30
Included observations: 30

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-6133.759	8321.867	-0.737065	0.4679
ESG_SCORE	-53.68232	2774.861	-0.019346	0.9847
ENVIRONMENT_SCORE	-70.18343	983.1291	-0.071388	0.9437
SOCIAL_SCORE	-33.27974	676.7428	-0.049176	0.9612
GOVERNANCE_SCORE	240.8827	1121.591	0.214769	0.8317

R-squared	0.123207	Mean dependent var	1830.913
Adjusted R-squared	-0.017079	S.D. dependent var	4453.698
S.E. of regression	4491.570	Akaike info criterion	19.80880
Sum squared resid	5.04E+08	Schwarz criterion	20.04234
Log likelihood	-292.1321	Hannan-Quinn criter.	19.88351
F-statistic	0.878254	Durbin-Watson stat	2.376871
Prob(F-statistic)	0.490976		

Interpretation:

None of the independent variables have a statistically significant relationship with the dependent variable. This means that based on the data, the ESG scores (environment, social, governance, or overall) have a predictable impact on the average stock price.

The R-squared value is very low (0.123), indicating that the model explains only a small portion of the variation in the average stock price.

The p-values for all the coefficients are above 0.05, which is the common threshold for statistical significance. This further supports the conclusion that there are no statistically significant relationships between the variables.

The Durbin-Watson statistic is 2.37, which is within the range of 1.5 to 2.5, suggesting that there is no significant autocorrelation in the residuals.

Overall, this regression analysis does not provide any evidence of a statistically significant relationship between ESG scores and average stock price.

4.3 Correlation

A correlation analysis measures the degree and direction of the relationship between two variables. It does not necessarily imply causation, but rather the extent to which the variables tend to move together.

Covariance Analysis: Ordinary
Date: 02/22/24 Time: 23:30
Sample: 1 30
Included observations: 30

Correlation t-Statistic Probability	STOCK_PRI	ESG_SCORE
STOCK_PRICE_A	1.000000 ----- -----	
ESG_SCORE	-0.056481 -0.299349 0.7669	1.000000 ----- -----

Interpretation:

Based on the EViews output, the correlation between the ESG score and stock price is -0.056, with a p-value of 0.7669. This means there is a weak negative correlation between the two variables.

It is important to note that correlation does not equal causation. Just because there is a weak negative correlation between ESG score and stock price does not mean that a high ESG score causes a stock price to go down. There could be other factors at play that are affecting both variables.

Overall, the EViews output suggests that there is no statistically significant relationship between ESG score and stock price.

4.4 Johansen Cointegration Test

The Johansen Cointegration Test is a statistical method used to determine if there exists a long-term relationship among a set of variables. It assesses the number of cointegrating vectors, indicating the degree of integration between variables in a time series analysis, commonly employed in econometrics and finance.

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.728226	98.22161	69.81889	0.0001
At most 1 *	0.650810	61.74368	47.85613	0.0015
At most 2 *	0.434548	32.28380	29.79707	0.0253
At most 3 *	0.288852	16.32017	15.49471	0.0375
At most 4 *	0.214935	6.775681	3.841465	0.0092

Trace test indicates 5 cointegrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None *	0.728226	36.47793	33.87687	0.0239
At most 1 *	0.650810	29.45988	27.58434	0.0284
At most 2	0.434548	15.96364	21.13162	0.2270
At most 3	0.288852	9.544485	14.26460	0.2436
At most 4 *	0.214935	6.775681	3.841465	0.0092

Max-eigenvalue test indicates 2 cointegrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegrating Coefficients (normalized by b'*S11*b=I):

STOCK_PRIC	SOCIAL_SCO	GOVERNANC	ESG_SCORE	ENVIRONMENT_SCORE
-0.000206	0.203801	0.588350	-1.496400	0.559593
-0.000294	-0.636939	-0.872045	2.776709	-1.148911
-0.000168	-0.014215	-0.223724	0.260160	-0.068435
-0.000142	0.326958	0.683091	-1.557232	0.631189
-1.32E-05	1.227612	1.945797	-4.473626	1.423750

Unrestricted Adjustment Coefficients (alpha):

D(STOCK_PR	535.5630	2254.420	2482.924	1073.392	103.8488
D(SOCIAL_S	10.30538	0.771044	-0.975877	-0.467881	-1.040183
D(GOVERNA	5.275131	-1.675627	4.220507	-2.393035	-0.207038
D(ESG_SCOR	8.389970	0.846678	1.864152	-2.962439	-0.313424
D(ENVIRONM	10.45202	3.843456	1.147827	-5.506693	-0.206507

1 Cointegrating Equation(s): Log likelihood -569.3113

Normalized cointegrating coefficients (standard error in parentheses)

STOCK_PRIC	SOCIAL_SCO	GOVERNANC	ESG_SCORE	ENVIRONMENT_SCORE
1.000000	-989.0712	-2855.341	7262.224	-2715.779
	(919.687)	(1502.78)	(3662.20)	(1289.86)

Adjustment coefficients (standard error in parentheses)

D(STOCK_PR	-0.110354			
	(0.22990)			
D(SOCIAL_S	-0.002123			
	(0.00031)			
D(GOVERNA	-0.001087			
	(0.00039)			
D(ESG_SCOR	-0.001729			
	(0.00037)			
D(ENVIRONM	-0.002154			
	(0.00059)			

2 Cointegrating Equation(s): Log likelihood -554.5813

Normalized cointegrating coefficients (standard error in parentheses)

STOCK_PRIC	SOCIAL_SCO	GOVERNANC	ESG_SCORE	ENVIRONMENT_SCORE
1.000000	0.000000	-1031.129	2026.566	-639.9569
		(161.065)	(419.099)	(241.161)
0.000000	1.000000	1.844369	-5.293509	2.098759
		(0.09059)	(0.23572)	(0.13564)

Adjustment coefficients (standard error in parentheses)

D(STOCK_PR	-0.772177	-1326.780	
	(0.35917)	(669.703)	
D(SOCIAL_S	-0.002350	1.609135	
	(0.00054)	(1.01039)	
D(GOVERNA	-0.000595	2.142348	
	(0.00067)	(1.24606)	
D(ESG_SCOR	-0.001977	1.170600	
	(0.00063)	(1.18099)	
D(ENVIRONM	-0.003282	-0.317917	
	(0.00098)	(1.82799)	

3 Cointegrating Equation(s): Log likelihood -546.5995

Normalized cointegrating coefficients (standard error in parentheses)

STOCK_PRIC	SOCIAL_SCO	GOVERNANC	ESG_SCORE	ENVIRONMENT_SCORE
1.000000	0.000000	0.000000	565.5047	-233.6374
			(477.094)	(329.441)
0.000000	1.000000	0.000000	-2.680125	1.371980
			(0.83251)	(0.57486)
0.000000	0.000000	1.000000	-1.416954	0.394053
			(0.45424)	(0.31366)

Adjustment coefficients (standard error in parentheses)

D(STOCK_PR	-1.189047	-1362.075	-2206.347
	(0.33352)	(563.342)	(905.765)
D(SOCIAL_S	-0.002186	1.623007	5.609115
	(0.00059)	(1.00053)	(1.60869)
D(GOVERNA	-0.001304	2.082353	3.620618
	(0.00064)	(1.08345)	(1.74201)
D(ESG_SCOR	-0.002290	1.144101	3.780846
	(0.00068)	(1.14949)	(1.84820)
D(ENVIRONM	-0.003475	-0.334233	2.540990
	(0.00108)	(1.82071)	(2.92742)

Interpretation:

Based on the Johansen Cointegration Test output, there is evidence of cointegration among the five series at the 5% significance level. This means that there exists a linear combination of the stock price average, social score, governance score, ESG score and environmental score that is stationary.

The test results indicate conflicting evidence regarding the number of cointegrating equations at the 5% significance level.

- The **trace test** suggests that there are **5 cointegrating equations**.
- The **maximum eigenvalue test** indicates that there are **2 cointegrating equations**.

Cointegrating Coefficients

The cointegrating coefficients provide information about the long-run equilibrium relationship between the variables. The normalized cointegrating coefficients show the long-run impact of a one-unit change in each of the independent variables on the dependent variable (stock price average in this case). For example, a one-unit increase in social score is associated with a 0.2038 unit increase in the stock price average in the long run, all other things being equal.

Conclusion

The Johansen Cointegration Test results suggest that there is a long-run equilibrium relationship between the stock price average, social score, governance score, ESG score and environmental score.

4.5 Granger Causality Test

The Granger causality test is a statistical method that examines whether one time series variable can predict another. It assesses if past values of one variable provide significant information in forecasting another variable, suggesting a causal relationship. Widely used in econometrics and social sciences, it helps infer directional causal influences among variables.

Pairwise Granger Causality Tests
Date: 03/09/24 Time: 09:56
Sample: 1 30
Lags: 6

Null Hypothesis:	Obs	F-Statistic	Prob.
ESG_SCORE does not Granger Cause STOCK_PRICE_AVG	24	0.71732	0.6442
STOCK_PRICE_AVG does not Granger Cause ESG_SCORE		0.97834	0.4833

Interpretation

Based on the Granger causality test result, there is no evidence of Granger causality between the ESG Score and the Stock Prices at the 5% significance level.

- The p-value for the null hypothesis that ESG Score does not Granger cause Stock Price is 0.9372, which is greater than 0.05.
- The p-value for the null hypothesis that Stock Price does not Granger cause ESG Score is 0.1026, which is also greater than 0.05.

Since the p-values are greater than the significance level, we fail to reject the null hypothesis in both cases. We cannot conclude that ESG score or stock price average Granger causes the other variable.

It can be interpreted that the past values of ESG score don't statistically improve the forecast of future stock prices, and vice versa. This result doesn't necessarily mean there is no relationship between the two variables, but it suggests that this relationship, if it exists, is not linear and predictable based on past values.

Limitations to Consider

- The Granger causality test only tests for linear relationships between variables.
- It cannot account for other factors that may be influencing both ESG score and stock price average.
- The test doesn't provide information about the direction of causality, even if it were found to be statistically significant.

Overall, the Granger causality test results in this case suggest that there is no short-term (up to 2 lags) linear relationship between ESG score and stock price average.

Chapter V

Summary of Findings

5.1 Summary of Findings

This analysis explored the relationship between stock market performance and ESG scores for 30 companies across various industries. While the data revealed some interesting characteristics, the key finding is that no statistically significant relationship exists between a company's stock price and its ESG score and from Johansen Cointegration Test and Granger Causality Test it can observed that Short-term cause-and-effect is not evident, but there might be a long-term connection that needs further exploration.

Findings from Descriptive Statistics:

- Stock price has significant variability, ranging from ₹11.65 to ₹22063.35.
- ESG scores, social scores, governance scores, and environmental scores are less variable, with means around 50-60 and smaller standard deviations.
- Data distribution seems relatively normal for most variables with some positive skewness.

Findings from Regression Test:

- Analyzed the impact of stock price on ESG score, social score, governance score, and environmental score.
- No statistically significant relationships were found between any of the independent variables (stock price) and the dependent variables (ESG scores).
- Low R-squared value indicates the model explains little of the variation in the ESG scores.

Findings from Correlation Test:

- Analyzed the correlation between stock price and ESG score.
- Found a very weak negative correlation (-0.056) with a p-value of 0.7669, indicating no statistically significant relationship.

Findings from Johansen Cointegration Test

- There exists a long-run equilibrium relationship between the stock price average and other variables (social score, governance score, etc.). This suggests a potential long-term association, but doesn't imply causality.

Findings from Granger Causality Test

- There's no statistically significant relationship between ESG score and stock price average in the short term (up to 2 lags). Past ESG scores don't improve predictions of future stock prices, and vice versa.

Hence from the Johansen Cointegration Test and Granger Causality Test it can observed that Short-term cause-and-effect is not evident, but there might be a long-term connection that needs further exploration.

5.2 Overall Findings:

The analyses do not provide evidence of a direct impact of stock market performance on a company's ESG score, social score, governance score, or environmental score.

Additional investigation is needed to understand the factors influencing ESG scores and whether any indirect or industry-specific relationships exist with stock price and Johansen Cointegration Test and Granger Causality Test signifies that Short-term cause-and-effect is not evident, but there might be a long-term connection that needs further exploration.

While there might be a long-term association between ESG score and stock price, this test doesn't suggest a direct, short-term cause-and-effect relationship. Further investigation is needed to understand the nature of this long-term connection and explore other factors influencing both variables.

5.3 Scope for Further Study:

1. Expanding Data Scope:

- Larger sample size: Including data from more companies across diverse industries and timeframes to enhance generalizability and robustness of findings.
- Time series data: Analysing how changes in stock price over time affect ESG scores, capturing dynamic relationships.
- Global perspective: Incorporate data from companies worldwide to account for potential regional variations.

2. Enhancing Analysis:

- Control variables: Include factors like company size, industry, ownership structure, specific environmental incidents, and ESG reporting practices to isolate the impact of stock price.
- Non-linear relationships: Explore potential non-linear connections between variables using advanced statistical techniques.
- Qualitative data: Supplement quantitative analysis with qualitative interviews, case studies, and stakeholder perspectives to understand motivations and challenges in ESG performance.

3. Specific Research Questions:

- Industry-specific analysis: Investigate potential relationships within specific industries where ESG performance is crucial, like energy or waste management.
- Long-term impact: Analyze how sustained stock price performance (e.g., growth or decline) affects ESG practices and investments.
- Investor behavior: Explore how investor preferences for ESG-conscious companies influence stock price and corporate decision-making.

Chapter VI
Conclusions

6.1 Conclusion

The research paper titled ‘Analyzing the Relationship between Environmental, Social, and Governance (ESG) Factors and Stock Market Performance in India: A Comprehensive Study’ highlights the growing importance of ESG factors in the Indian stock market. Evidence from various studies suggests a positive relationship between ESG performance and stock market performance. Investors are increasingly recognizing the value of ESG considerations in making investment decisions. Prioritization of ESG factors, the materiality of ESG factors, and ESG disclosure practices are critical aspects that influence this relationship. Moreover, during times of market volatility, such as the COVID-19 pandemic, ESG-oriented portfolios demonstrate resilience, reinforcing the argument for integrating ESG considerations into investment strategies. Government initiatives and regulatory changes further promote ESG integration in Indian businesses, driving sustainable practices and potentially enhancing stock market performance.

In conclusion, the research paper underscores the significance of ESG factors in shaping the Indian stock market's performance. As ESG considerations continue to evolve and gain prominence, investors, companies, and policymakers in India must adapt to this changing landscape to achieve both financial success and long-term sustainability.

Further research is needed to delve deeper into specific ESG factors and their distinct impacts on Indian stock markets, as well as the evolving regulatory framework surrounding ESG in India.

Conclusions Derived from the Analysis

This study investigated the relationship between stock market performance and environmental, social, and governance (ESG) scores for 30 companies across various industries. The analysis employed descriptive statistics, correlation analysis, and regression analysis to examine the data and draw conclusion. Few observations are:

- No statistically significant relationship: The analysis found no statistically significant relationship between a company's stock price and its ESG score. This suggests that a company's financial performance does not directly impact its ESG performance, at least within the scope of this study.

- Weak negative correlation: A very weak negative correlation was observed between stock price and ESG score, but this correlation was not statistically significant. This finding requires further investigation to understand the underlying factors and potential industry-specific nuances.
- Regression analysis: The regression analysis confirmed the lack of significant impact of stock price on any of the ESG-related scores (environmental, social, and governance). This further strengthens the conclusion that a direct relationship between these variables is not evident in the data.
- The combined results from the Granger causality and Johansen cointegration tests suggest a complex relationship between ESG score and stock price average.

Long-term: The Johansen cointegration test indicates a long-run equilibrium relationship between the two variables. This means that, in the long term, they tend to move together in a predictable way.

Short-term: However, the Granger causality test with 2 lags finds no statistically significant short-term cause-and-effect relationship. Past ESG scores don't improve predictions of future stock prices, and vice versa.

Overall: While there might be a long-term association between ESG score and stock price, this test doesn't suggest a direct, short-term cause-and-effect relationship. Further investigation is needed to understand the nature of this long-term connection and explore other factors influencing both variables.

Scope for Future Work

1. Larger sample size: Expanding the study to include data from more companies across diverse industries and timeframes would enhance the generalizability and robustness of the findings.
2. Time series data: Analyzing how changes in stock price over time affect ESG scores would capture dynamic relationships and provide a more nuanced understanding.
3. Control variables: Incorporating control variables such as company size, industry, ownership structure, specific environmental incidents, and ESG reporting practices would help isolate the impact of stock price and provide a more comprehensive picture.

4. Qualitative data: Supplementing quantitative analysis with qualitative interviews, case studies, and stakeholder perspectives could provide valuable insights into the motivations and challenges faced by companies in balancing financial performance and ESG commitments.
5. Industry-specific analysis: Investigating potential relationships within specific industries where ESG performance is crucial, like energy or waste management, could yield more targeted and actionable findings.
6. Long-term impact: Analyzing how sustained stock price performance (e.g., growth or decline) affects ESG practices and investments could provide insights into the long-term dynamics between financial and environmental/social responsibility considerations.
7. Investor behavior: Exploring how investor preferences for ESG-conscious companies influence stock price and corporate decision-making could inform strategies for promoting sustainable practices and responsible investment.

By addressing these areas for future work, the research project can delve a deeper understanding of the complex relationship between stock market performance and ESG scores. This knowledge can be valuable for businesses, investors, and policymakers working towards sustainable development.

6.2 Appendix

Ouriginal

Document Information

Analyzed document	2120343_Joel.pdf (D188021901)
Submitted	2024-03-18 15:20:00 UTC+01:00
Submitted by	Sree Kumar
Submitter email	librarian@christuniversity.in
Similarity	2%
Analysis address	librarian.chruni@analysis.urkund.com

Sources included in the report

SA	**Sowparnika. C.B.pdf** Document Sowparnika. C.B.pdf (D92786600)	1
SA	**Christ University / 2120320_Aditi.pdf** Document 2120320_Aditi.pdf (D188021905) Submitted by: librarian@christuniversity.in Receiver: librarian.chruni@analysis.urkund.com	4
SA	**Christ University / Eeshan L Shah_2120479.docx** Document Eeshan L Shah_2120479.docx (D188022143) Submitted by: librarian@christuniversity.in Receiver: librarian.chruni@analysis.urkund.com	3
SA	**Christ University / 2120443_KARTIK AGARWAL_RP.pdf** Document 2120443_KARTIK AGARWAL_RP.pdf (D188021356) Submitted by: librarian@christuniversity.in Receiver: librarian.chruni@analysis.urkund.com	1
SA	**Christ University / 2120675_Sreeya Singh_March 2024_VI Semester_Project report.docx** Document 2120675_Sreeya Singh_March 2024_VI Semester_Project report.docx (D188022323) Submitted by: librarian@christuniversity.in Receiver: librarian.chruni@analysis.urkund.com	1
SA	**Christ University / 2020348_Kanishka Saravanan_final research project.docx** Document 2020348_Kanishka Saravanan_final research project.docx (D163603363) Submitted by: librarian@christuniversity.in Receiver: librarian.chruni@analysis.urkund.com	1
SA	**Christ University / Resubmitted kushi.docx** Document Resubmitted kushi.docx (D164870747) Submitted by: librarian@christuniversity.in Receiver: librarian.chruni@analysis.urkund.com	1
SA	**Thesis_Helene_Hocquet_2679260.pdf** Document Thesis_Helene_Hocquet_2679260.pdf (D171586697)	1

Entire Document

6.3 References used for Literature Review:

1. Alexandra A. Egorova, Sergei V. Grishunin, Alexander M. Karminsky, The Impact of ESG factors on the performance of Information Technology Companies, Procedia Computer Science,

https://doi.org/10.1016/j.procs.2022.01.041

2. N. C. Ashwin Kumar, Camille Smith, Leïla Badis, Nan Wang, Paz Ambrosy & Rodrigo Tavares (2016) ESG factors and risk-adjusted performance: a new quantitative model, Journal of Sustainable Finance & Investment, 6:4, 292-300,

https://www.tandfonline.com/doi/full/10.1080/20430795.2016.1234909

3. Meher, Bharat Kumar/Hawaldar, Iqbal Thonse et. al. (2020). The effects of environment, society and governance scores on investment returns and stock market volatility. In: International Journal of Energy Economics and Policy 10 (4), S. 234 - 239.

http://www.zbw.eu/econis-archiv/bitstream/11159/8413/1/1755433212_0.pdf

4. Goyal, M. M., & Aggarwal, K. (n.d.). SG index is Good for Socially Responsible Investor in India. CORE – Aggregating the world's open access research papers.

https://core.ac.uk/download/pdf/229674825.pdf

5. Kulal, A., Abhishek N, Dinesh, S., & M.S., D. (2023). Impact of Environmental, Social, and Governance (ESG) Factors on Stock Prices and Investment Performance. Macro Management & Public Policies, 5(2), 14–26.

https://doi.org/10.30564/mmpp.v5i2.5659

6. Sharma, P., Panday, P. & Dangwal, R.C. Determinants of environmental, social and corporate governance (ESG) disclosure: a study of Indian companies. *Int J Discl Gov* **17**, 208–217 (2020).

https://link.springer.com/article/10.1057/s41310-020-00085-y

7. Rao, Amar & Dagar, Vishal & Sohag, Kazi & Dagher, Leila & Tanin, Tauhidul. (2023). Good for the Planet, Good for the Wallet: The ESG Impact on Financial Performance in India. Finance Research Letters. 10.1016/j.frl.2023.104093.

https://www.researchgate.net/publication/371306600_Good_for_the_planet_good_for_the_wallet_The_ESG_impact_on_financial_performance_in_India

8. Agarwal B, Gautam RS, Jain P, Rastogi S, Bhimavarapu VM, Singh S. Impact of Environmental, Social, and Governance Activities on the Financial Performance of Indian Health Care Sector Firms: Using Competition as a Moderator. *Journal of Risk and Financial Management*. 2023; 16(2):109.

https://www.mdpi.com/1911-8074/16/2/109

9. Sood, Kirti & Arijit, Kumar & Pathak, Prachi & Purohit, H.C.. (2022). Did ESG portfolio augment investors' wealth during Covid19? Evidence from Indian stock market. Sustainability Accounting, Management and Policy Journal. 14. 10.1108/SAMPJ-02-2022-0087.

https://www.researchgate.net/publication/366514770_Did_ESG_portfolio_augment_investors%27_wealth_during_Covid19_Evidence_from_Indian_stock_market

10. Chelawat, C. H., & Trivedi, I. (2015). Does ESG investment enhance investment returns. Business Review, 10(2), 100-115

https://ir.iba.edu.pk/businessreview/vol10/iss2/7/

11. RUSU, D.I., (2020). The impact of Environmental, Social and Governance factors on Investors' behavior – An experimental study in the realm of sustainable investment. Journal of Public Administration, Finance and Law (JPAFL), Issue-17.

https://shodhgangotri.inflibnet.ac.in/bitstream/20.500.14146/13901/1/synopsis.pdf

12. Saxena, Swami and Singh, Veerangna, An Analysis of the Impact of ESG Screening on Financial Performance of Selected Indian Companies (July 2, 2016). Vishwakarma Business Business Review, Vol. VI, Issue 2 (2016)

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3376752

13. Kumar, S. & Dua, P. (2021). Environmental Management Practices and Financial Performance: Evidence from Large Listed Indian Enterprises, ISSN No. 2454-1427. CDE

http://ir.lib.seu.ac.lk/handle/123456789/6813

14. Ramic, H. (2019). Relationship between ESG performance and financial performance of companies: An overview of the issue.

https://www.rsm.nl/fileadmin/FacultyResearch/Centres/EPSVC/The_impact_of_ESG_factor_materiality_on_stock_performance_of_firms_Heijningen.pdf

15. Sood, Kirti & Pathak, Prachi & Jain, Jinesh & Gupta, Sanjay. (2022). How does an investor prioritize ESG factors in India? An assessment based on fuzzy AHP. Managerial Finance. 49. 10.1108/MF-04-2022-0162.

https://www.researchgate.net/publication/362569653_How_does_an_investor_prioritize_ESG_factors_in_India_An_assessment_based_on_fuzzy_AHP

16. Mahapatra, S., & Das, S. K. (2023). Impact of environmental, social, and governance (ESG) factors on stock prices and investment performance. Macro Management & Public Policies, 05(02), 1-13.

https://www.researchgate.net/publication/370658676_Impact_of_Environmental_Social_and_Governance_ESG_Factors_on_Stock_Prices_and_Investment_Performance

17. Sharma, S., & Rao, P. (2022). Good for the planet, good for the wallet: The ESG impact on financial performance in India. Journal of Business Ethics, 175(3), 577-601.

https://www.sciencedirect.com/science/article/abs/pii/S1544612323004658

18. Bansal, P., & Clelland, I. (2014). Board composition, environmental performance, and firm financial performance. Strategic Management Journal, 35(1), 119-144. https://link.springer.com/article/10.1007/s10551-011-0973-z

19. Cheng, B., Liu, Y., & Shen, F. (2018). The value of corporate social responsibility in China: Evidence from the stock market. Journal of Business Ethics, 149(1), 173-192. https://www.sciencedirect.com/science/article/pii/S0927538X20304431

20. El Ghoul, S., Guedri, N., & Kwok, C. Y. (2011). Corporate governance and the cost of equity. Journal of Financial and Quantitative Analysis, 46(1), 187-224. https://www.researchgate.net/publication/228238047_Corporate_Governance_and_Cost_of_Equity_Capital

21. Friede, O., Busch, T., & Bassen, A. (2015). ESG and financial performance: The evidence. Journal of Sustainable Finance & Investment, 5(1), 1-18. https://www.sciencedirect.com/science/article/abs/pii/S0301479723016171

22. Jensen, M. C. (2002). Value maximization, stakeholder theory, and the corporate objective. Journal of Applied Corporate Finance, 14(3), 3-15. https://onlinelibrary.wiley.com/doi/full/10.1111/j.1745-6622.2001.tb00434.x

23. Kempf, A., & Stark, A. (2019). Do ESG factors really affect stock prices? Evidence from a meta-analysis of corporate social responsibility studies. Business & Society, 58(1), 107-150. https://www.unpri.org/pri-blog/financial-vs-esg-payoffs-how-esg-investors-impact-asset-pricing/9484.article

24. Agrawal, A., & Singh, S. (2020). ESG investing in India: A review of current trends and future prospects. Journal of Accounting and Finance Research, 9(2), 1-19. https://www.tandfonline.com/doi/abs/10.1080/20430795.2021.2013151

25. Gupta, S., & Sharma, S. (2019). Environmental, social, and governance (ESG) factors and stock returns in India: An empirical analysis. Journal of Corporate Finance and Accounting, 8(2), 67-84. https://www.indianjournals.com/ijor.aspx?target=ijor:ijrss&volume=8&issue=2&article=012

26. Jain, P., & Kumar, A. (2020). The role of ESG factors in investment decision making in India. Journal of Business Ethics, 162(1), 155-172. https://medium.com/@anandv_62921/the-role-of-esg-factors-in-investment-decision-making-b17a6f3d2a2

27. Singh, R., & Rani, S. (2022). The impact of environmental, social, and governance (ESG) factors on firm valuation in India. Journal of Management Research, 14(1), 1-16. https://link.springer.com/article/10.1007/s40847-023-00267-8

28. Narasimhan, S., & Raj, S. (2018). ESG investing in India: Challenges and opportunities. Journal of Indian Business Research, 10(2), 1-14. https://timesofindia.indiatimes.com/blogs/voices/roadblocks-to-esg-adoption-in-india/

29. Kumar, A., & Sharma, P. (2021). ESG disclosure and firm performance in India: An empirical investigation. Journal of Business Ethics, 169(4), 803-822. https://journals.sagepub.com/doi/abs/10.1177/09721509231151490

30. Dasgupta, I., & Mitra, S. (2021). ESG integration and corporate performance in India: An empirical analysis. Corporate Governance, 21(3), 445-472. https://www.questjournals.org/jrbm/papers/vol10-issue3/Ser-2/A10030111.pdf