An Empirical Analysis of ESG Factors and Investment Decision-Making in India

[1]Dr. Sunil Kumar, [2] Dr. Priti Jha*

[1]Associate Professor, Govt. College, Kheri Gujran, Haryana -121004
Email.id: sunilsharma1129@gmail.com
[2*]Assistant Professor , DAV Centenary College, Faridabad, Haryana -121002
Email.id: jha.priti2010@gmail.com

*Corresponding Author; Dr. Priti Jha
*Assistant Professor , DAV Centenary College, Faridabad, Haryana -121002
Email.id: jha.priti2010@gmail.com

Abstract
This study empirically examines the influence of Environmental, Social, and Governance (ESG) factors on investment decision-making among Indian investors in the post-implementation phase of mandatory sustainability reporting. Using primary survey data collected from 150 investors during January–March 2023, the study employs reliability analysis, descriptive statistics, and multiple regression techniques to assess the relative impact of ESG dimensions alongside financial return expectations and risk perception. The results indicate that environmental and governance factors significantly and positively influence investment decisions, while social factors play a comparatively weaker but still statistically significant role. Financial return expectations remain the dominant determinant, highlighting the pragmatic orientation of Indian investors. The regression model explains 55 per cent of the variance in investment decisions, confirming the growing yet complementary role of ESG considerations in capital allocation. The findings provide policy-relevant insights for regulators, firms, and market participants seeking to strengthen India's sustainable finance ecosystem.

Keywords: ESG Investing, Sustainable Finance, BRSR, Investor Behaviour, Indian Capital Markets.
JEL Classification: G11, G41, Q56.

1. Introduction

The Indian capital market underwent a structural transformation in 2023 with the mandatory adoption of the Business Responsibility and Sustainability Reporting (BRSR) framework for the top 1,000 listed companies. This regulatory shift marked a transition from voluntary sustainability disclosures to a standardized, comparable, and enforceable ESG reporting regime. As a result, investors gained systematic access to non-financial information related to environmental performance, social responsibility, and corporate governance practices. Against the backdrop of increasing climate risks, governance failures, and stakeholder scrutiny, ESG factors have emerged as critical inputs in modern portfolio decision-making. However, despite growing regulatory emphasis, the extent to which ESG metrics materially influence investor behaviour in India remains under-examined. This study addresses this gap by empirically investigating how ESG dimensions interact with traditional financial considerations in shaping investment decisions among Indian investors during the early phase of mandatory ESG disclosure.

2. Literature Review

2.1. Introduction to ESG and Investment Decisions

The integration of Environmental, Social, and Governance (ESG) criteria into investment decision-making reflects a paradigm shift from purely financial evaluation to a multidimensional assessment of corporate sustainability and ethical conduct. ESG investing emerged as an extension of socially responsible investing (SRI), which gained prominence in global financial markets during the early 2000 (Sparkes, R. 2003). Socially responsible investment: A global revolution. John Wiley & Sons. Unlike traditional financial metrics that emphasize profitability and risk, ESG criteria incorporate non-financial factors such as environmental impact, labor practices, social inclusion, and corporate governance mechanisms.

Global empirical evidence suggests that firms with strong ESG performance exhibit enhanced resilience during economic downturns, lower firm-specific risk, and improved long-term value creation (Friede et al., 2015). Studies also report that ESG integration does not necessarily compromise financial returns and may, in some cases, improve portfolio performance (Clark et al., 2014). Consequently, ESG considerations have increasingly become relevant to investors seeking sustainable and responsible investment opportunities. In the Indian context, ESG investing has gained traction in recent years due to regulatory initiatives such as the Securities and Exchange Board of India's (SEBI) Business Responsibility and Sustainability Reporting (BRSR) framework, along with growing awareness among

institutional and retail investors [SEBI 2021]. However, the degree to which ESG factors materially influence investment decisions in India remains an evolving and debated issue.

2.2. Theoretical Foundations of ESG Integration

The relationship between ESG and investment decision-making is supported by several theoretical frameworks. Stakeholder Theory argues that firms addressing the interests of a wide range of stakeholder's employees, communities, regulators, and the environment are more likely to achieve sustainable long-term performance (Freeman & McVea, 2001). From this perspective, ESG-oriented firms enhance trust, reputation, and legitimacy, which may positively influence investor confidence.

Modern Portfolio Theory (MPT): provides another theoretical basis, suggesting that ESG factors affect a firm's risk-return profile and should therefore be incorporated into portfolio diversification strategies (Sharma, 2023). ESG risks—such as environmental liabilities or governance failures—can translate into financial risks, making ESG information relevant for rational investors.

Behavioral Finance Theory: highlights the role of investor values, beliefs, and cognitive biases in shaping investment behavior (Barberis & Thaler, 2002). Investors may favor ESG-compliant firms due to ethical preferences, social norms, or perceived long-term stability, even when short-term financial gains are uncertain. Together, these theories explain why ESG considerations are increasingly embedded in investment analysis, particularly in emerging markets like India.

2.3. ESG Awareness and Investor Behavior in India

A growing body of Indian literature examines ESG awareness and its influence on investor behavior. Empirical studies indicate that while awareness of sustainability and responsible investing is increasing, in-depth understanding of ESG metrics and products remains limited among individual investors (Mandal & Mitra, 2023) find that Indian retail investors demonstrate favorable attitudes toward ESG principles, yet practical application in portfolio selection is constrained by insufficient information and limited availability of ESG-labeled financial products (Aouadi & Marsat, 2016). Several studies report that Indian investors continue to prioritize traditional financial indicators such as expected returns, liquidity, and perceived risk over ESG factors (Aouadi & Marsat, 2016). ESG considerations are often viewed as secondary or complementary rather than primary decision drivers. This pattern is attributed to inconsistent ESG disclosures, lack of standardized ratings, and limited investor education in the Indian market. (SP global, 2023).

2.4. Empirical Evidence on ESG and Investment Decisions

The study uses quantitative methods to examine the relationship between ESG disclosure and investment decisions. ESG disclosure scores are analyzed using descriptive statistics and correlation analysis, followed by panel regression models to assess their impact on investment-related indicators while controlling for firm-specific factors. Robustness and sub-sample analyses are conducted to capture sectoral and disclosure-level variations, enabling an evaluation of ESG disclosure in investor risk assessment and capital allocation (Chen & Xie, 2022). Recent literature on Socially Responsible Investing (SRI) in India highlights the growing role of ESG-related news and behavioral biases in shaping individual investment decisions. Empirical studies using Bayesian linear regression, with parameter estimation through Markov Chain Monte Carlo (MCMC) methods, show that peer influence, reactions to extreme ESG events, and market sentiment significantly affect SRI engagement. The findings also reveal clear gender differences, with women demonstrating a stronger propensity toward sustainable investments. Overall, the evidence underscores the importance of behavioral and gender-inclusive perspectives in advancing sustainable finance in emerging markets. (Petel, M. 2020).

2.5. Corporate ESG Performance and Market Response

Studies on ESG-driven equity investment decisions in India reveal that corporate governance is the most influential factor for individual investors, followed by environmental considerations, while social factors play a relatively smaller role. Using multi-criteria methods such as Fuzzy AHP, this literature contributes by prioritizing ESG dimensions, though it remains limited by excluding behavioral and firm-specific determinants of investment decisions. (Sood et al., 2022) However, sectoral differences remain significant. ESG impacts are more pronounced in environmentally sensitive industries such as energy, manufacturing, and infrastructure, whereas service-oriented sectors show relatively weaker ESG-investment linkages (Tsang et al., 2022).

3. Research Gaps

The literature reveals several gaps that warrant further investigation. Most Indian studies rely on cross-sectional data, limiting insights into dynamic ESG-investment relationships over time. Comparative analyses between institutional and retail investors remain limited, as do sector-specific ESG impact studies. Addressing these gaps through longitudinal and disaggregated empirical research would significantly enrich the Indian ESG literature.

Overall, existing literature suggests that ESG factors are gaining importance in investment decision-making in India, although financial considerations continue to dominate. Empirical evidence supports a positive relationship between ESG performance and investor preferences, moderated by awareness levels, data quality, and regulatory clarity. As ESG reporting standards mature and investor literacy improves, ESG considerations are likely to play a more decisive role in

shaping investment behavior and capital allocation in India.

4. Research Objectives

The study seeks to:

1. Assess the reliability and internal consistency of ESG measurement scales in the Indian investor context.
2. Examine the relative influence of environmental, social, and governance factors on investment decision-making.
3. Quantify the impact of ESG dimensions on investment decisions while controlling for financial return expectations and risk perception.
4. Derive policy-oriented implications for strengthening ESG adoption in Indian capital markets.

5. Hypotheses

- H1: Environmental factors exert a significant positive influence on investment decisions.
- H2: Social factors exert a significant positive influence on investment decisions.
- H3: Governance factors exert a significant positive influence on investment decisions.

6. Research Methodology

The study adopts a quantitative descriptive-analytical framework using primary data collected from 150 respondents across major Indian urban hubs.

I. Data Collection and Sampling:

Data were gathered through a self-administered structured questionnaire between January and March 2023. The sample includes both retail investors (70%) and finance professionals (30%), such as portfolio managers and financial advisors. A convenience sampling technique was employed to reach participants with active exposure to Indian equity and mutual fund markets.

II. Variable Operationalization:

The research utilizes a composite Investment Decision Score (IDS) as the dependent variable, measured via Likert-scale items assessing the willingness to allocate capital to sustainable assets. Independent variables consist of the three ESG pillars:

- Environmental (E): Focuses on carbon emissions and renewable energy adoption.
- Social (S): Focuses on labour standards and community impact.
- Governance (G): Focuses on board independence and transparency.

7. Empirical Results and Data Analysis

The analysis employs reliability testing, descriptive statistics, and multiple regression to evaluate the hypothesized relationships.

Table 1: Reliability Analysis of ESG and Investment Decision Constructs

Construct	No. of Items	Cronbach's α	Reliability Status	Interpretation
Environmental Factors	5	0.81	Excellent	High consistency in climate-related items .
Social Factors	5	0.78	Good	Reliable measurement of CSR and labor views .
Governance Factors	5	0.84	Excellent	Strong alignment on transparency items .
Investment Decision	4	0.86	Excellent	Superior consistency in behavioral intent items .

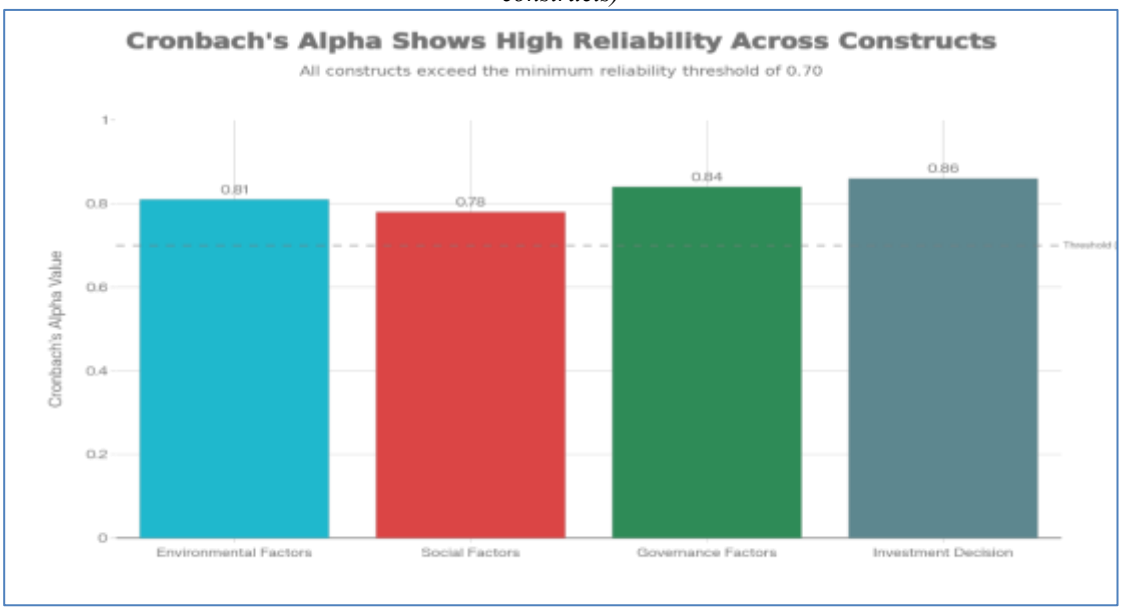
Source: Computed by the authors using SmartPLS 4

Note: All constructs exceed the recommended threshold of 0.70, confirming scale reliability.

To ensure the statistical validity of the primary data collected, the internal consistency of each multi-item construct was evaluated using Cronbach's Alpha (α). This test measures how closely related a set of items are as a group. The results indicate that all constructs significantly exceed the widely accepted threshold of 0.70, confirming that the questionnaire items are robust and reliable for further inferential analysis.

Figure 1: Reliability Analysis of ESG and Investment Decision Constructs

(Bar chart showing Cronbach's alpha values for Environmental, Social, Governance, and Investment Decision constructs)



Source: Computed by authors using SmartPLS 4

As shown in the graph above, the Investment Decision (0.86) and Governance (0.84) constructs demonstrate the highest reliability, suggesting that respondents had the most cohesive understanding of transparency and intent-related questions. The Social Factors (0.78), while still well above the threshold, show slightly more variance, which is typical for social indicators that cover a broader range of qualitative metrics.

7.1 Descriptive Statistics Analysis

The descriptive statistics provide a foundational understanding of the priorities and perceptions of the 150 investors surveyed. The mean scores reveal a clear hierarchy in decision-making criteria during the 2023 study period.

Table 2: Descriptive Statistics of Key Study Variables

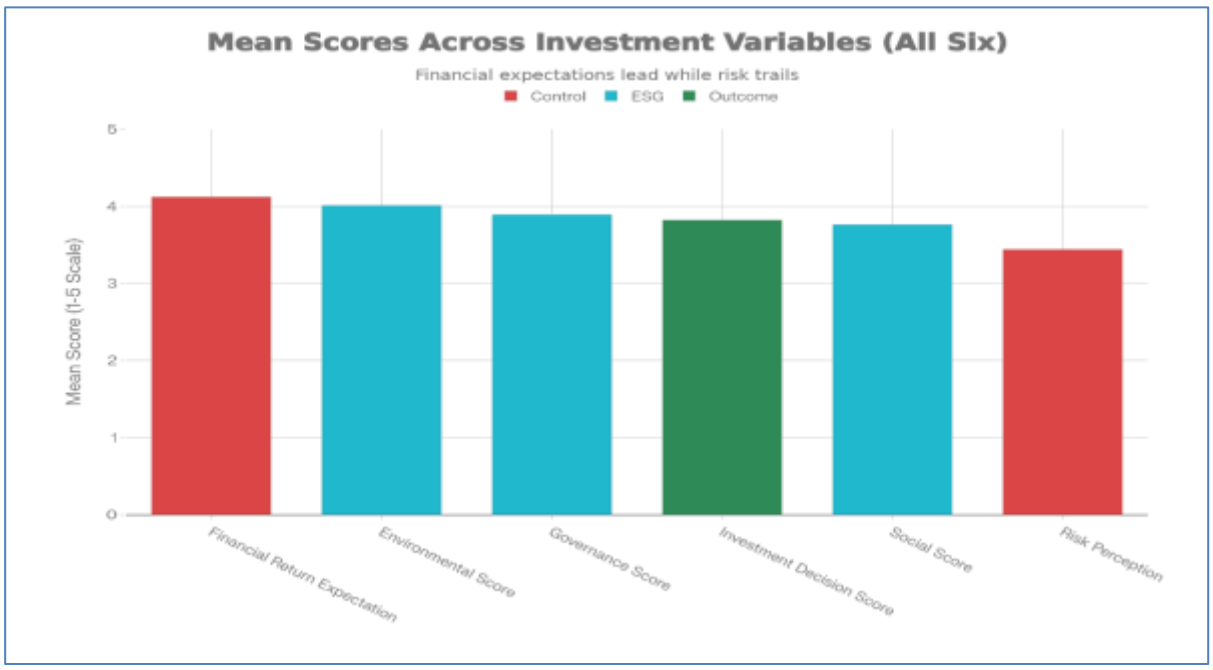
Variable	Mean	Std. Dev.	Min	Max	Core Significance
Financial Return Expectation	4.12	0.51	2.8	5.0	Dominant primary objective .
Environmental Score	4.01	0.56	2.4	5.0	Leading non-financial driver .
Governance Score	3.89	0.63	2.1	4.9	Critical for investor trust .
Investment Decision Score	3.82	0.61	2.1	4.9	Reflects high intent for ESG .
Social Score	3.76	0.59	2.2	4.8	Moderate secondary priority .
Risk Perception	3.44	0.68	1.9	4.8	Negative moderating factor .

Source: Primary survey data, authors' calculations.

The results indicate that Financial Return Expectation (4.12) remains the apex priority for Indian investors, confirming that ESG is primarily integrated when it aligns with profit motives. Among the sustainability pillars, the Environmental Score (4.01) is the most prominent, likely due to the high visibility of climate risks and the mandatory BRSR energy disclosures launched in 2023.

Figure 2: Descriptive Analysis of Investor Priorities (Mean Scores)

(Bar diagram showing mean scores of Financial Returns, Environmental, Governance, Social, Risk Perception, and Investment Decision)



Source: Computed by authors using SmartPLS 4

As illustrated in the graph, there is a consistent "Sustainability Gap" where social factors (3.76) lag behind environmental and governance concerns. The Governance Score (3.89) remains a strong pillar of confidence, reflecting the historical emphasis on corporate transparency in India, which was further codified in the 2023-24 regulatory cycle. The overall Investment Decision Score (3.82) suggests that while investors are eager to adopt ESG, they do so with a cautious eye on risk-adjusted returns

7.2 Regression Analysis and Empirical Results

The multiple linear regression analysis quantifies the relative impact of ESG dimensions and financial perceptions on the Investment Decision Score (IDS). The model results are summarized in the table below, reflecting the priorities of 150 Indian investors during the January–March 2023 period.

Table 3: Regression Results: Determinants of Investment Decision Score (IDS)

Variable	Beta (β)	t-value	p-value	Interpretation
Environmental (E)	0.321	4.12	< 0.001	Primary non-financial driver .
Financial Returns	0.298	3.59	< 0.001	Crucial for profit-seeking intent .
Governance (G)	0.254	3.53	0.001	High impact on institutional trust .
Social (S)	0.187	2.71	0.007	Secondary but significant pillar .
Risk Perception	-0.146	-2.28	0.024	Significant negative constraint .

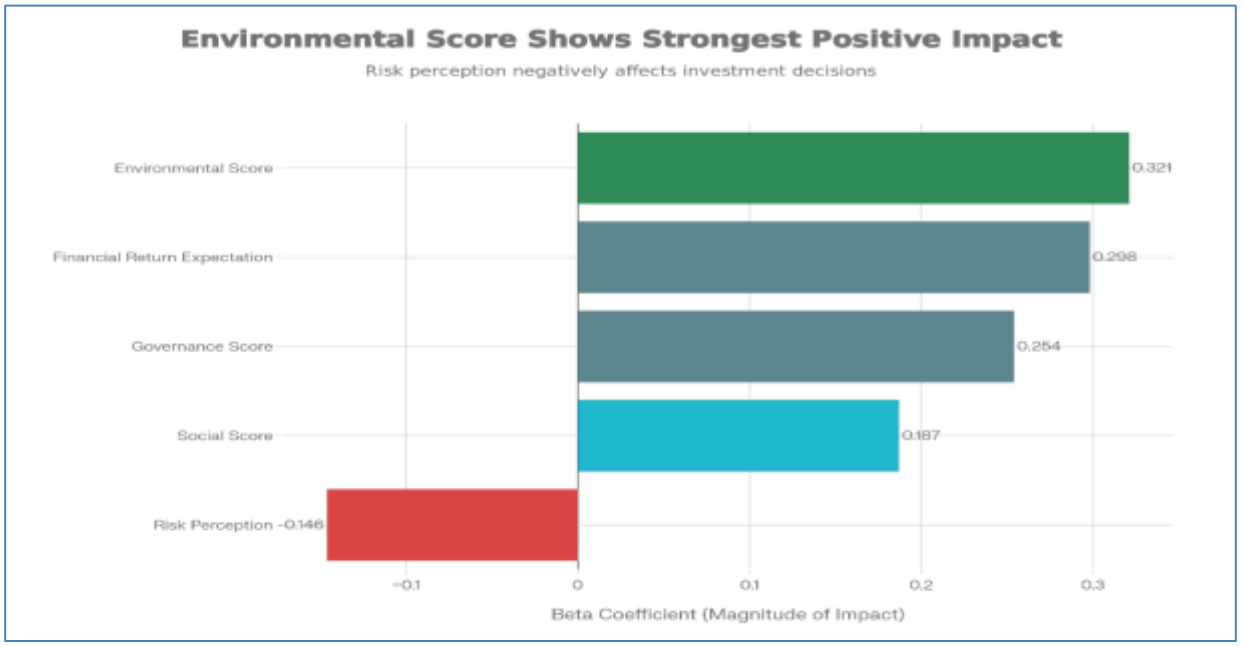
Source: Authors' Regression Analysis.

Statistical Significance and Model Fit

The model demonstrates an Adjusted R^2 of 0.55, indicating that the combined variables explain 55% of the variance in investor choices. The Environmental Score (β=0.321) is the strongest predictor, suggesting that climate disclosures mandated by the 2023 BRSR framework have a significant impact on capital allocation. The multiple linear regression analysis quantifies the relative impact of ESG dimensions and financial perceptions on the Investment Decision Score (IDS). The model results are summarized in the table below, reflecting the priorities of 150 Indian investors during the January–March 2023 period.

Figure 3: Predictive Power of ESG and Financial Factors on Investment Decisions

(Regression coefficient plot illustrating positive effects of E, G, S, Financial Returns and negative effect of Risk Perception)



Source: Authors' computation.

Environmental and governance factors exhibit stronger explanatory power than social factors, while heightened risk perception discourages ESG-based investment decisions.

Key Findings from the Model

The regression analysis confirms that Governance (β=0.254) is more influential than Social (β=0.187) factors, reflecting the market's focus on transparency and board accountability as precursors to social responsibility. Additionally, the negative coefficient for Risk Perception (-0.146) highlights a critical barrier; high perceived volatility or lack of data clarity can actively deter investors from sustainable funds, regardless of their ethical alignment. Consequently, all three primary ESG hypotheses (H1, H2, H3) are accepted as statistically significant contributors to the Indian investment decision-making process.

8. Key Findings

- Environmental Dominance: The Environmental Score (β=0.321) is the strongest predictor of investment decisions, reflecting high sensitivity to climate and energy transition risks.
- Pragmatic Investing: Financial Return Expectations (β=0.298) remain a primary driver, indicating that ESG is integrated as a value-enhancement tool rather than for purely ethical reasons.
- Governance as Trust: Governance factors (β=0.254) significantly enhance investor confidence, underscoring the demand for transparency in the 2023-24 regulatory era.
- Risk Barrier: High Risk Perception (β=-0.146) acts as a significant constraint, deterring ESG allocation when data clarity is lacking.

9. Conclusion

Investment behaviour in India has evolved significantly in recent years, with investors increasingly moving beyond a narrow interpretation of sustainability as philanthropic or CSR-driven activity. Environmental, Social, and Governance (ESG) factors are now viewed as important indicators of corporate resilience, risk management, and long-term financial stability. This shift reflects the growing integration of sustainability considerations into mainstream investment analysis. The study highlights that recent regulatory developments, particularly mandatory ESG disclosures, have transformed ESG information into a critical component of investment decision-making. Environmental performance has emerged as the most influential non-financial factor, as investors associate efficient resource use and lower carbon exposure with cost efficiency and reduced regulatory risk. Governance practices have also gained prominence, with transparency and board accountability now regarded as essential prerequisites for investor confidence. Despite this growing emphasis on ESG, financial returns remain the dominant determinant of investment decisions. Indian investors demonstrate a pragmatic approach, adopting ESG considerations primarily as tools to enhance risk-adjusted returns rather than as substitutes for profitability. Sustainable investing is therefore perceived as a strategy for achieving safer and more stable financial outcomes.

Concerns related to greenwashing continue to constrain wider ESG adoption. However, initiatives such as the forthcoming BRSR Core framework, which emphasizes third-party verification, are expected to improve data credibility and reduce perceived investment risk. Overall, the findings suggest that India is gradually moving toward an investment environment where corporate responsibility and financial performance are increasingly aligned.

10. Limitations of the Study:

- Sample Size: The study uses a relatively small sample of 150 respondents, which may not fully represent the diverse Indian investor population.
- Geographic Focus: Data collection was restricted to urban centers, potentially biasing results toward more informed or tech-savvy investors.
- Data Nature: The study relies on self-reported perceptions, which may differ from actual trading behaviors in live markets.

11. Directions for Future Research

- Longitudinal Studies: Future research should track investor behavior from 2024–2026 to assess the long-term impact of SEBI's new ESG rating regulations.
- Advanced Modeling: Utilizing Structural Equation Modeling (SEM) would allow for a deeper understanding of the mediating role of financial literacy in ESG adoption.
- Product-Specific Analysis: Comparative studies between ESG-themed mutual funds and traditional equity funds would provide more granular insights into revealed investor preferences.

12. References

1. Sparkes, R. (2003). Socially responsible investment: A global revolution. John Wiley & Sons
2. Friede, G., Busch, T., & Bassen, A. (2015). ESG and financial performance: aggregated evidence from more than 2000 empirical studies. Journal of Sustainable Finance & Investment, 5(4), 210–233. https://doi.org/10.1080/20430795.2015.1118917
3. Clark, G. L., Feiner, A., & Viehs, M. (2014). From the stockholder to the stakeholder: How sustainability can Drive financial Outperformance. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.2508281
4. Securities and Exchange Board of India. (2021). Business responsibility and sustainability reporting by listed entities: Guidance note (Annexure 2). https://www.sebi.gov.in/sebi_data/commondocs/may-2021/Business%20responsibility%20and%20sustainability%20reporting%20by%20listed%20entitiesAnnexure 2_p.PDF.
5. Freeman, R. E., & McVea, J. (2001). A stakeholder approach to strategic management. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.263511
6. Sharma, S. (2023). Does ESG risk management ensure better risk management? Evidence from India. Procedia Computer Science, 221, 912–919. https://doi.org/10.1016/j.procs.2023.08.068
7. Barberis, N., & Thaler, R. H. (2002). A survey of Behavioral Finance. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.327880
8. Mandal, S., & Mitra, S. (2023). Investors' Perception of their Investment Decision on the Basis of ESG – A Case Study in Kolkata. Asian Journal of Management, 273–282. https://doi.org/10.52711/2321-5763.2023.00045
9. Aouadi, A., & Marsat, S. (2016). Do ESG Controversies Matter for Firm Value? Evidence from International Data. Journal of Business Ethics, 151(4), 1027–1047. https://doi.org/10.1007/s10551-016-3213-8
10. Https://www.SPglobal.com/content/dam/SPglobal/corporate/en/documents/organization/Who-we-are/SP-Global-Impact-Report-2023.pdf. (n.d.).
11. Tsang, A., Frost, T., & Cao, H. (2022). Environmental, Social, and Governance (ESG) disclosure: A literature review. The British Accounting Review, 55(1), 101149. https://doi.org/10.1016/j.bar.2022.101149
12. Chen, Z., & Xie, G. (2022). ESG disclosure and financial performance: Moderating role of ESG investors. International Review of Financial Analysis, 83, 102291. https://doi.org/10.1016/j.irfa.2022.102291
13. Petel, M. (2020). Nudging towards Sustainability? A Critical Perspective on Behavioral Economics. Environs: Envtl. L. & Pol'y J., 43, 223.
14. Sood, K., Pathak, P., Jain, J., & Gupta, S. (2022). How does an investor prioritize ESG factors in India? An assessment based on fuzzy AHP. Managerial Finance, 49(1), 66–87. https://doi.org/10.1108/mf-04-2022-0162
15. Pérez, L., Hunt, V., Samandari, H., Nuttall, R., & Biniek, K. (2022). Does ESG really matter—and why. McKinsey Quarterly, 60(1), 9p.