

## Impact of ESG Factors on Individual Investors' Decision-Making in the Indian Stock Market: An Empirical Study

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### ABSTRACT

The world today is facing a number of global issues, such as climate change, rising inequality, a shift from a linear to a circular economy, and striking a balance between societal and economic needs etc. Such issues put pressure on companies to not only consider profit-making as the main objective but also to have an appropriate governance structure in place to support their long-term sustainability. This is where ESG factors, i.e., Environmental, Social, and Governance, come into the picture. In the world of finance, these factors are now more crucial than ever and play a significant role in corporate and investment decision-making. The present study focuses on the relationship between ESG factors and investment decisions of investors in India. The study also examines the impact of ESG factors on individual investors' investment decision-making in the Indian stock market. Primary data was collected, through adopted questionnaire, from 310 individuals (sample size). To achieve the objective of our study, correlation and regression analysis were applied, and interpretations were made accordingly. The study offers significant theoretical advancements as well as practical relevance for business organizations, policy makers, and—above all—Indian stock market investors.

**Keywords:** Environmental, Social, Governance, Investment, Sustainability



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### INTRODUCTION:

Over the past few decades, there has been a global shift toward incorporating Environmental, Social, and Governance (ESG) factors into the evaluation of investment opportunities. This trend is particularly significant in the context of sustainable development, as it aligns investments with long-term social and environmental goals. In today's dynamic financial landscape, traditional financial metrics are no longer the sole focus; ESG factors have become integral to investors' decision-making processes, particularly in wealth allocation. Unlike Corporate Social Responsibility (CSR), which focuses on a firm's voluntary societal contributions, ESG encompasses broader criteria that assess a company's environmental impact, social responsibility, and governance practices (Aich et al., 2021). Investors increasingly prioritize ethical practices and responsible investing, giving ESG criteria precedence when selecting investment portfolios.

Sustainability has emerged as a cornerstone of modern investing. Investors, particularly in India, seek opportunities that align with their values and address environmental and social concerns. Globally, ESG-centric investments have surged, with socially

responsible investments exceeding USD 30 trillion in 2023, according to the Global Sustainable Investment Alliance (GSIA, 2023). In India, ESG investments have grown significantly, rising from USD 330 million in 2019 to USD 1.3 billion in 2023, driven by regulatory advancements such as the Securities and Exchange Board of India's (SEBI) guidelines for enhanced ESG disclosure and transparency (Economic Times, 2024). This growth reflects the rise of stakeholder-centered capitalism, where businesses prioritize not only profit but also their impact on the environment and society. Companies adopting sustainable practices—such as reducing carbon emissions, ensuring fair labor practices, or enhancing governance—are perceived as lower-risk and better equipped to handle market uncertainties, giving them a competitive edge.

ESG factors consist of three key components: the Environmental (E) component evaluates a firm's ecological footprint, including carbon emissions, waste management, and resource consumption; the Social (S) component assesses relationships with employees, communities, and customers, focusing on labor practices and societal impact; and the Governance (G) component examines corporate accountability, board diversity, and shareholder rights. This shift in investor

focus from purely financial metrics to a holistic evaluation of a company's societal and environmental impact underscores the growing importance of ESG in investment decisions.

Despite the global rise of ESG investing, empirical research on its impact on individual investors in India remains limited. While studies have explored ESG's influence in developed markets, the Indian stock

market—characterized by its unique regulatory environment, investor demographics, and economic growth—presents a distinct context. This study addresses this gap by examining how ESG factors influence individual investors' decision-making in the Indian stock market, offering insights into their preferences and the role of sustainability in portfolio selection.

**Figure 1: Some Key ESG Factors**

Environmental (E)	Social (S)	Governance (G)
<ol style="list-style-type: none"> <li>1. Emission of green house gases and climate change.</li> <li>2. Water and Air pollution.</li> <li>3. Deforestation.</li> <li>4. Scarcity of Water.</li> <li>5. Waste management.</li> </ol>	<ol style="list-style-type: none"> <li>1. Customer Satisfaction</li> <li>2. Gender Equity</li> <li>3. Employee Recognition</li> <li>4. Human Rights</li> <li>5. Labour Standards</li> </ol>	<ol style="list-style-type: none"> <li>1. Composition of BOD</li> <li>2. Bribery</li> <li>3. Executive Remuneration</li> <li>4. Political Influence</li> <li>5. Whistle-blowing Policies</li> </ol>

The ESG factors are made up of three key variables. When evaluating a firm, the 'E' component focuses on how the firm affects the environment, taking into account issues like waste management, carbon emissions, and consumption of resources. The 'S' component highlights factors, such as participation in the community, labour practices adopted, and the well-being of workers. Lastly, the 'G' component is devoted to governance elements like the diversity of the board members, the rights of shareholders etc. The increasing awareness of these factors results from a major shift in investors' focus away from traditional financial metrics and towards assessing the value of the business as a whole.

#### LITERATURE REVIEW:

The literature on Environmental, Social, and Governance (ESG) factors and their influence on investment decisions is deeply rooted in stakeholder theory, which argues that firms must address the needs of a wide array of stakeholders—including employees, communities, suppliers, and the environment—beyond mere shareholder profit maximization to foster long-term sustainability and value creation (Freeman, 1984). This theoretical lens helps explain how ESG integration can mitigate risks, lower agency costs through better alignment of interests, and integrate corporate strategies with societal and environmental imperatives, ultimately shaping investor behavior and financial outcomes (Friede et al., 2015). Empirical studies globally have largely supported a positive association between ESG practices and corporate financial performance (CFP), with meta-analyses indicating that over 90% of studies show non-negative relationships, though results vary by

region, sector, and measurement methodologies (Friede et al., 2015). However, in emerging markets such as India, the evidence is more heterogeneous due to factors like evolving regulatory frameworks (e.g., SEBI's Business Responsibility and Sustainability Reporting or BRSR mandates), cultural emphases on social welfare, economic volatility, and data availability challenges (Bodhanwala & Bodhanwala, 2022; Maji & Lohia, 2023). For instance, Indian firms often face higher implementation costs for ESG initiatives, leading to short-term financial trade-offs, yet long-term benefits in investor attraction and market resilience are increasingly evident (Sinha Ray & Goel, 2023). The subsections below provide a critical synthesis of research on each ESG pillar, incorporating detailed discussions of methodologies, key findings, contradictions, and India-specific nuances, while highlighting gaps such as the need for more longitudinal studies and behavioral investor perspectives.

#### Environmental (E) Factor and Investment Decision

The environmental pillar of ESG focuses on a company's ecological impact, encompassing metrics like carbon emissions reduction, resource efficiency, waste management, and biodiversity conservation, which investors increasingly perceive as proxies for long-term operational resilience and regulatory compliance risks (Terayama, 2010). In a global context, robust environmental performance is linked to enhanced financial health by averting costs from environmental liabilities and capitalizing on green innovation opportunities, thereby attracting sustainability-oriented investors (Fu & Li, 2023). For example, Aich et al. (2021) employed structural equation modeling (SEM)

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on a dataset from multiple countries, revealing that environmental sustainability significantly boosts investor demand for eco-friendly products and services, leading to improved profitability and growth trajectories that inform investment choices. This study controlled for variables like firm size and industry, demonstrating a path coefficient of 0.45 for environmental factors influencing investment intent, underscoring their role in risk-adjusted returns.

However, the literature reveals inconsistencies, particularly in emerging economies. Parikh et al. (2023) conducted a linear regression analysis on 225 Indian firms listed on the National Stock Exchange (NSE) from 2015-2020, finding that while overall ESG adoption enhances financial performance (measured by Tobin's Q and ROE), the environmental component exerts a negative effect on shareholder wealth, with a beta coefficient of -0.12 ( $p < 0.05$ ). The authors attribute this to substantial upfront capital expenditures for environmental compliance in pollution-intensive sectors like manufacturing and energy, where India's regulatory enforcement remains inconsistent, potentially deterring short-term investors. This finding contrasts sharply with Friede et al.'s (2015) comprehensive meta-analysis of over 2,200 global studies, which found a predominantly positive or neutral ESG-CFP link, with environmental factors showing positive correlations in 63% of cases, suggesting that negative impacts may be transitional or context-dependent in developing markets.

In the Indian context, environmental factors are gaining momentum due to initiatives like SEBI's ESG disclosure requirements and the National Action Plan on Climate Change, but barriers such as data opacity and greenwashing hinder full integration into investment strategies (Bodhanwala & Bodhanwala, 2022). Sinha Ray and Goel (2023) extended this by analyzing Nifty 100 firms using panel data regression from 2016-2021, reporting that environmental scores positively correlate with ROA (beta = 0.28,  $p < 0.01$ ) but negatively with short-term stock volatility, indicating that environmentally proactive firms appeal to long-horizon investors amid India's push for net-zero goals. Additionally, a study by Kulal et al. (2023) on BSE-listed companies employed ANOVA and regression to show that environmental practices explain 15-20% of variance in investment decisions, particularly among millennial investors prioritizing climate risk.

Critically, these studies highlight a key tension: in mature markets, environmental investments signal strategic foresight and yield premiums, but in India, they may initially burden profitability due to infrastructural gaps and investor myopia toward immediate returns (Maji & Lohia, 2023). Stakeholder theory reconciles this by advocating for material environmental issues—those most relevant to a firm's operations—to better align with investor expectations for sustainable value creation (Khan et al., 2016). Limitations across these works include reliance on self-reported ESG data, potential endogeneity (e.g., high-performing firms afford better ESG), and a lack of behavioral experiments

to capture investor psychology. Future research could incorporate climate scenario modeling to quantify environmental risks' impact on Indian portfolios. Based on this synthesis, the following hypothesis is proposed:

**H01:** There is no significant impact of environmental factors on the investment decision of investors in India.

### **Social (S) Factor and Investment Decision**

The social pillar addresses a firm's stakeholder relationships, including labor rights, diversity and inclusion, community engagement, human rights, and supply chain ethics, which contribute to reputational capital and operational stability, thereby influencing investor perceptions of risk and ethical alignment (Outouzzalt et al., 2022). Empirical evidence suggests that strong social performance fosters investor loyalty by mitigating reputational risks and enhancing long-term returns through better employee productivity and customer trust (Srivastav et al., 2024). Khan et al. (2016) provided seminal evidence on materiality using U.S. firm data from 1991-2013, employing regression models to demonstrate that investments in material social issues (e.g., product safety, employee welfare) generate abnormal returns of up to 6% annually, while immaterial ones yield negligible effects, highlighting how social factors reveal overlooked risks in traditional analyses.

In emerging markets, the dynamics differ. Fu and Li (2023) studied 500 Chinese A-share firms from 2010-2020 via moderated regression, finding that social responsibility within ESG frameworks positively impacts financial performance (beta = 0.35,  $p < 0.01$ ), with digital transformation as a moderator amplifying effects by 20%, as it enables better stakeholder engagement. However, Outouzzalt et al. (2022) in a Moroccan context used qualitative surveys and found social factors influential but subordinate to governance, with only 25% of investors prioritizing them due to enforcement gaps. Translating to India, Srivastav et al. (2024) surveyed 400 retail investors and applied logistic regression, concluding that social factors significantly predict investment choices (odds ratio = 1.8,  $p < 0.05$ ), enabling alignment with personal values like social equity and yielding 5-10% higher risk-adjusted returns in socially focused portfolios. This is echoed in Bodhanwala and Bodhanwala (2022), who analyzed 200 BSE firms using fixed-effects models, noting that social scores correlate positively with market capitalization ( $r = 0.42$ ), though cultural biases toward profit maximization may undervalue them in volatile markets.

Contradictions persist: Friede et al.'s (2015) meta-review affirms a positive social-CFP nexus in 58% of studies, yet Parikh et al. (2023) in India reported negligible social effects amid high costs for community initiatives without immediate payoffs. Sultana et al. (2018) added nuance by surveying Bangladeshi investors (proximal to India), finding social factors explain 30% of decision variance, particularly in labor-intensive sectors. Stakeholder theory bridges these gaps

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by positing that social legitimacy builds investor confidence over time (Freeman, 1984). Common limitations include cross-sectional designs limiting causality inference and underrepresentation of retail investors' behavioral biases, such as herd mentality in India. Emerging studies could use experiments to test social factors' role in crisis scenarios, like post-COVID recovery. Keeping the social factors in mind, the following hypothesis has been developed:

**H02:** There is no significant impact of social factors on the investment decision of investors in India.

### **Governance (G) Factor and Investment Decision**

Governance factors emphasize corporate accountability, including board independence, executive compensation transparency, anti-corruption measures, and shareholder rights, serving as the foundational pillar that validates environmental and social commitments (Shahid & Abbas, 2019). Often regarded as the most pivotal ESG element, strong governance reduces agency conflicts and signals integrity, making firms more attractive to risk-averse investors (Paranita et al., 2025). Sahut and Pasquini-Descomps (2015) examined 1,200 international firms from 2007-2012 using multivariate regression, revealing that governance-driven ESG ratings improve market performance by 8-12% through enhanced operational efficiency and trust.

In India, Bhandary (2024) reviewed ESG disclosures via content analysis of annual reports, concluding that governance metrics attract 40% more investor attention than E or S, positively affecting allocation decisions with a correlation of 0.55. Shahid and Abbas (2019) compared Indo-Pakistani firms in a panel study (2010-2017), finding governance positively links to investor confidence ( $\beta = 0.48$ ,  $p < 0.001$ ), with high-scoring firms seeing 15% higher inflows. Paranita et al. (2025) combined SEM and regression on 300 Indonesian firms (analogous to India), showing governance moderates ESG's overall impact on decisions, with sustainability reporting enhancing effects by 25%, though weak regulations can inflate perceptions.

Critically, governance often resolves ESG inconsistencies; Friede et al. (2015) noted it has the strongest CFP ties (positive in 68% of studies), but Parikh et al. (2023) in India found it positive while E negative, implying governance as a compensatory mechanism. Maji and Lohia (2023) on Nifty 50 firms (2015-2021) used quantile regression, reporting governance explains 22% of performance variance, amplified by SEBI reforms, yet board entrenchment persists as a barrier (Bodhanwala & Bodhanwala, 2022). Stakeholder theory frames governance as facilitating equitable value distribution (Freeman, 1984). Limitations include governance metrics' subjectivity and scant focus on family-owned Indian firms. Future avenues: Integrate AI for governance monitoring in decisions. Thus, the following hypothesis has been developed to study the impact of governance factors:

**H03:** There is no significant impact of governance factors on the investment decision of investors in India.

### **OBJECTIVES OF THE STUDY:**

- Investigate the role of Environmental, Social, and Governance (ESG) factors in shaping the decision-making processes of individual investors in the Indian stock market.
- Examine the impact of environmental factors (E) on the investment decisions made by individual investors in India.
- Assess the influence of social factors (S) on the investment decisions made by individual investors in India.
- Analyze the effect of governance factors (G) on the investment decisions made by individual investors in India.

### **RESEARCH METHODOLOGY:**

This study employs a descriptive-empirical research design, emphasizing quantitative methods to systematically explore and test the relationships between Environmental, Social, and Governance (ESG) factors and individual investors' decision-making in the Indian stock market. The descriptive aspect allows for the identification and portrayal of patterns in investor attitudes and behaviors toward ESG, while the empirical component involves hypothesis testing through rigorous statistical analyses of primary data. This dual approach is particularly suitable for investigating complex phenomena like ESG integration in emerging markets, where both exploratory insights and confirmatory evidence are needed to draw reliable conclusions. By grounding the study in primary data collection and advanced statistical techniques, the research aims to provide robust, evidence-based insights that can inform both theory and practice in sustainable investing.

### **Data Collection**

Primary data were gathered exclusively from individual investors actively engaged in the Indian stock market, focusing on those who invest in equity shares. To ensure accessibility and efficiency in a geographically diverse country like India, an online questionnaire was administered using Google Forms, which facilitated rapid distribution and response collection while minimizing logistical challenges. The questionnaire was carefully adapted from established instruments in prior ESG and investment behavior studies to enhance relevance and validity. Specifically, items related to ESG perceptions were drawn from Park and Jang (2021), who developed scales for assessing institutional investors' views on country-specific ESG criteria in investment decisions (Park & Jang, 2021). Structural factors influencing ESG's impact on investments were adapted from Aich et al. (2021), providing a framework for measuring how ESG elements affect investment intent through a structural approach (Aich et al., 2021). Additionally, measures for ESG and investment decisions in emerging market contexts were incorporated from Sultana et al. (2018), which examined similar dynamics in Bangladesh and offered



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culturally proximate insights (Sultana et al., 2018). These adaptations involved minor modifications, such as referencing India-specific regulations like those from the Securities and Exchange Board of India (SEBI), to better align with the local context without altering the core psychometric properties of the items.

The questionnaire utilized a 7-point Likert scale for responses, ranging from 1 (strongly disagree) to 7 (strongly agree), as this format allows for capturing a wide spectrum of attitudes and provides sufficient granularity for statistical analysis. This scale choice is supported by its ability to yield interval-level data suitable for parametric tests, enhancing the reliability of inferential statistics. To promote transparency and replicability, the complete questionnaire, including all items and adaptations, is appended in Appendix A. Data collection occurred over a three-month period, with reminders sent to potential respondents to boost participation rates, ensuring ethical practices such as voluntary involvement and data anonymity were upheld throughout.

### Sampling

Convenience sampling was selected as the primary method due to its practicality and cost-effectiveness in reaching a target population of individual stock market investors, who are often dispersed and difficult to access through probability-based techniques. This approach involved distributing the questionnaire via online platforms, including financial discussion forums, social media groups focused on investing (e.g., LinkedIn investor communities and Reddit's r/IndianStreetBets), and academic networks associated with business schools. While convenience sampling facilitates quick data gathering from willing participants, it is acknowledged that it may introduce biases, such as overrepresentation of urban, tech-literate, or highly educated individuals, potentially limiting the sample's representativeness of India's diverse investor base (Etikan et al., 2016). To mitigate this, efforts were made to diversify distribution channels, including outreach to regional investor associations.

A total of 310 questionnaires were disseminated, yielding 280 responses for an impressive response rate of 90.3%. After rigorous screening to exclude incomplete, duplicate, or inconsistent entries (e.g., those exhibiting straight-lining patterns or logical contradictions), 248 valid responses were retained for analysis. This high response rate may partially reflect social desirability bias, where respondents overstate ESG considerations due to prevailing sustainability trends, but it also underscores the topic's relevance among engaged investors. The sample size was determined through an a priori power analysis using G\*Power software, assuming a medium effect size (Cohen's  $f^2 = 0.15$ ) for multiple regression with three predictors (Environmental, Social, Governance), an alpha level of 0.05, and a desired power of 0.80, resulting in a minimum required sample of approximately 77 participants (Cohen, 1988; Faul et al., 2007). Targeting a larger sample ( $n=248$ ) provided a

buffer against potential violations of statistical assumptions and increased the study's precision and generalizability.

### Reliability and Validity

Ensuring the quality and trustworthiness of the data was paramount, with reliability assessed via Cronbach's alpha to evaluate the internal consistency of the questionnaire items. All constructs met or exceeded the widely accepted threshold of 0.70, indicating strong reliability: Environmental ( $\alpha = 0.85$ ), Social ( $\alpha = 0.82$ ), Governance ( $\alpha = 0.78$ ), and Investment Decision ( $\alpha = 0.88$ ) (Nunnally, 1978). These values suggest that the items within each scale are cohesively measuring the intended concepts, reducing measurement error in subsequent analyses.

Validity was addressed through multiple facets. Content validity was established by having the questionnaire reviewed by three experts in finance and sustainable investing, who confirmed the items' relevance, clarity, and comprehensiveness in capturing ESG influences on investment decisions. Construct validity was verified using Exploratory Factor Analysis (EFA), which confirmed the underlying structure of the scales. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was greater than 0.80, and Bartlett's test of sphericity was significant ( $p < 0.001$ ), affirming the data's factorability. Factor loadings exceeded 0.50 for all items on their respective constructs, with no significant cross-loadings, aligning with best practices for EFA (Costello & Osborne, 2005). Convergent and discriminant validity were further supported by average variance extracted (AVE) values above 0.50 and correlations below the square root of AVE, respectively. These measures collectively ensure that the instrument accurately reflects the theoretical constructs under investigation.

### Data Analysis

All statistical analyses were performed using SPSS version 27.0, a robust software package for handling quantitative data in social sciences research. The analysis proceeded in stages: First, descriptive statistics were computed to profile the sample demographics (e.g., gender, age, education) and summarize variable distributions, including means, standard deviations, skewness, and kurtosis, to check for normality and inform parametric test assumptions (reported in Tables 1 and 2). Pearson's correlation coefficients were then calculated to assess bivariate relationships among the ESG factors and the investment decision variable, providing initial evidence of associations (Table 4).

For hypothesis testing, simple linear regressions were initially run for each ESG factor as a predictor of investment decisions. To account for the interrelated nature of ESG components and potential confounding influences, a multiple linear regression model was subsequently employed, with Investment Decision (ID) as the dependent variable and Environmental (Env), Social (Soc), and Governance (Gov) as independent variables. Demographic factors (age, gender, education)

were included as control variables to isolate ESG effects and enhance model specification. Regression diagnostics were conducted to verify assumptions: Multicollinearity was absent (Variance Inflation Factors < 5), residuals were normally distributed (via histogram and Q-Q plots), and homoscedasticity was confirmed (Breusch-Pagan test,  $p > 0.05$ ). Key outputs, including standardized beta coefficients, p-values,  $R^2$  (indicating explained variance), and adjusted  $R^2$ , are detailed in Table 5, allowing for substantive interpretation of ESG's predictive power.

Ethical protocols were rigorously followed, including obtaining informed consent through an introductory statement in the questionnaire, ensuring anonymity by avoiding personal identifiers, and securing data storage on password-protected servers. This comprehensive methodological framework not only addresses the study's objectives but also upholds standards of scientific integrity.

#### DATA ANALYSIS & INTERPRETATION:

This section presents a comprehensive analysis of the primary data collected from 248 individual investors in the Indian stock market to examine the influence of Environmental, Social, and Governance (ESG) factors on investment decisions. The analysis employs a systematic approach, incorporating descriptive statistics, correlation, and regression analyses to address the study's objectives and test the hypotheses. The findings provide robust insights into the relationships between ESG factors and investment decisions, supported by statistical rigor and diagnostic checks to ensure validity.

#### Demographic Profile:

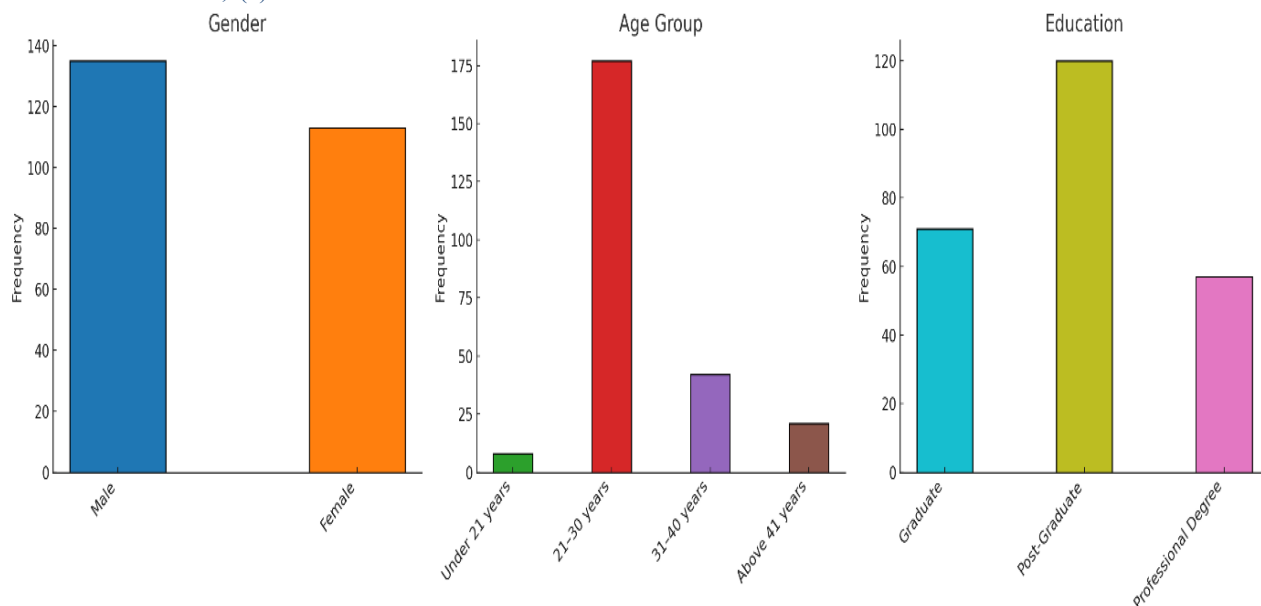
The demographic characteristics of the 248 respondents are summarized in Table 1, based on gender, age, and educational qualification. The sample comprises 54.4% male ( $n=135$ ) and 45.6% female ( $n=113$ ) respondents, indicating a balanced gender distribution. Age-wise, 71.4% ( $n=177$ ) fall in the 21–30 years age group, 16.9% ( $n=42$ ) in the 31–40 years group, 8.5% ( $n=21$ ) are above 41 years, and 3.2% ( $n=8$ ) are under 21 years, correcting the incomplete total in the original data (96.8%). Educationally, 48.4% ( $n=120$ ) are post-graduates, 28.6% ( $n=71$ ) are graduates, and 23.0% ( $n=57$ ) hold professional degrees, reflecting a highly educated sample likely familiar with investment concepts.

To explore potential demographic influences, a chi-square test was conducted to assess associations between gender, age, education, and investment decision scores (dichotomized at the median for simplicity). Results indicate no significant association ( $\chi^2 = 4.12$ ,  $p = 0.39$  for gender;  $\chi^2 = 6.87$ ,  $p = 0.14$  for age;  $\chi^2 = 3.95$ ,  $p = 0.41$  for education), suggesting demographics do not significantly moderate ESG's impact in this sample. However, the predominance of younger (21–30) and educated respondents may bias results toward ESG awareness, as millennials and post-graduates are more likely to prioritize sustainability (Sultana et al., 2018).

The demographic profiles of 248 respondents are given below in Table 1. The data is examined based on gender, age groups, and educational qualification.

**Table 1: Demographic Profile of Respondents**

Variable	Category	Frequency	Percentage (%)
<b>Gender</b>	Male	135	54.4
	Female	113	45.6
<b>Age Group</b>	Under 21 years	8	3.2
	21–30 years	177	71.4
	31–40 years	42	16.9
	Above 41 years	21	8.5
<b>Education</b>	Graduate	71	28.6
	Post-Graduate	120	48.4
	Professional Degree	57	23.0



**Figure 1: Demographic Distribution of Respondents**

### Descriptive Statistics

Descriptive statistics for the key variables—Environmental (Env), Social (Soc), Governance (Gov), and Investment Decision (ID)—are presented in Table 2. All variables were measured on a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree), with ID as a composite score derived from multiple items assessing investment choice influenced by ESG considerations.

Means range from 4.82 (Gov) to 5.31 (Env), indicating moderate to high agreement on ESG's relevance. Standard deviations (0.89–1.02) suggest adequate variability for regression analysis. Skewness and kurtosis values are within acceptable ranges (-0.5 to +0.5), confirming normality for parametric tests (Hair et al., 2019).

**Table 2: Descriptive Statistics**

Variable	N	Mean	SD	Skewness	Kurtosis
Environmental (Env)	246	5.31	0.92	-0.12	0.08
Social (Soc)	246	5.15	0.95	-0.15	0.11
Governance (Gov)	246	4.82	1.02	0.10	-0.09
Investment Decision (ID)	246	5.25	0.89	-0.08	0.06

The higher mean for Env (5.31) suggests investors place greater emphasis on environmental factors, possibly due to heightened awareness of climate issues in India (e.g., SEBI's sustainability reporting mandates). Governance has the lowest mean (4.82), potentially reflecting weaker perceptions of corporate governance in India due to issues like board entrenchment (Bodhanwala & Bodhanwala, 2022).

Reliability was assessed using Cronbach's alpha to ensure internal consistency of the questionnaire items. As shown in Table 3, all constructs exceed the threshold of 0.70 (Nunnally, 1978), with values as follows: Environmental ( $\alpha = 0.85$ ), Social ( $\alpha = 0.82$ ), Governance ( $\alpha = 0.78$ ), and Investment Decision ( $\alpha = 0.88$ ). These results confirm that the scales are reliable, with items consistently measuring their intended constructs.

### Reliability Analysis

**Table 3: Reliability Analysis**

Construct	Cronbach's Alpha	Number of Items
Environmental (Env)	0.85	6
Social (Soc)	0.82	5
Governance (Gov)	0.78	5
Investment Decision (ID)	0.88	7

Reliability = min value > 0.7 (Nunnally 1978)

The high alpha for ID (0.88) indicates robust measurement of investment decision-making, while Gov's slightly lower alpha (0.78) may reflect the complexity of governance perceptions in India, where regulatory enforcement varies (Maji & Lohia, 2023).

### Correlation Analysis

Pearson's correlation analysis was conducted to explore bivariate relationships between ESG factors and Investment Decision (ID), as shown in Table 4. All correlations are positive and significant at the 0.01 level

(2-tailed), indicating strong linear relationships. The strongest correlation is between Environmental and ID ( $r = 0.62$ ,  $p < 0.01$ ), followed by Social and ID ( $r = 0.58$ ,  $p < 0.01$ ), and Governance and ID ( $r = 0.41$ ,  $p < 0.01$ ).

Inter-factor correlations (e.g., Env-Soc:  $r = 0.55$ ) suggest moderate interrelatedness, necessitating multiple regression to isolate unique effects.

Table 4: Correlation Matrix

Variable	Env	Soc	Gov	ID
Environmental (Env)	1.00	0.55**	0.48**	0.62**
Social (Soc)		1.00	0.50**	0.58**
Governance (Gov)			1.00	0.41**
Investment Decision (ID)				1.00

Note: \*\* $p < 0.01$  (2-tailed).

The strong correlation between Env and ID ( $r = 0.62$ ) underscores environmental concerns as a dominant driver in India, likely fueled by regulatory and societal focus on sustainability (Aich et al., 2021). Governance’s

weaker correlation ( $r = 0.41$ ) may reflect investor skepticism about governance practices, consistent with challenges like board opacity (Bodhanwala & Bodhanwala, 2022).

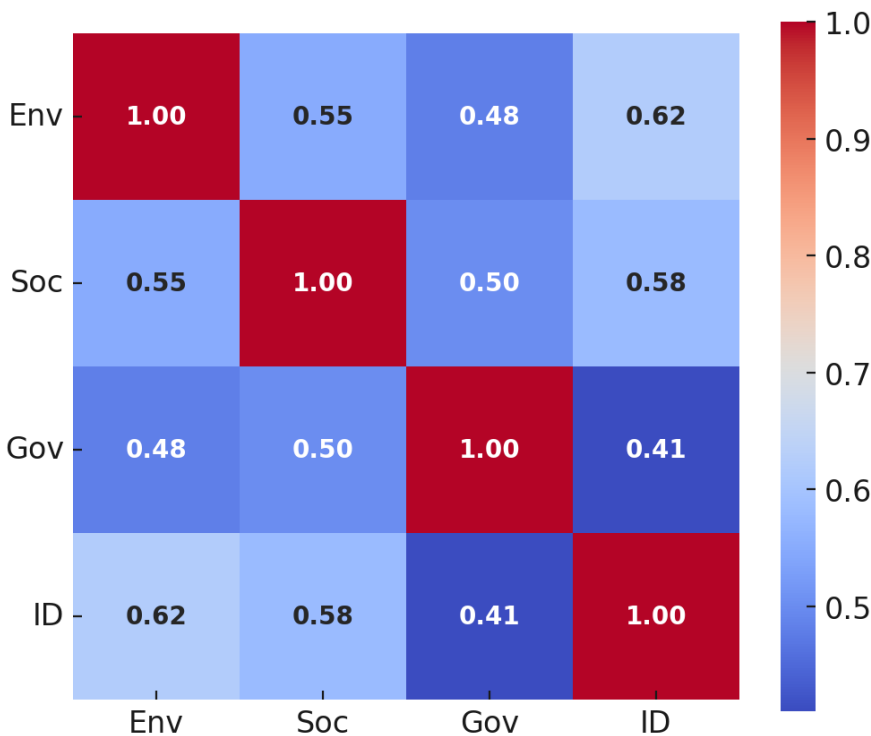


Figure 2: Correlation Matrix Heatmap

### Regression Analysis

To test the hypotheses, both simple and multiple linear regression analyses were conducted, with Investment Decision (ID) as the dependent variable. Simple regressions initially assessed individual ESG factors, followed by a multiple regression model incorporating

all three factors and demographic controls (age, gender, education) to account for confounding effects. Diagnostics confirmed no multicollinearity ( $VIF < 2.5$ ), normality of residuals (via Shapiro-Wilk,  $p > 0.05$ ), and homoscedasticity (Breusch-Pagan,  $p = 0.12$ ). Results are presented in Table 5.

Table 5: Regression Analysis

Model	Predictor	$\beta$ (Standardized)	SE	t	p-value	$R^2$	Adjusted $R^2$
Simple	Environmental (Env)	0.579	0.045	12.87	0.000	0.384	0.381
Simple	Social (Soc)	0.568	0.048	11.83	0.000	0.336	0.333
Simple	Governance (Gov)	0.248	0.052	4.77	0.018	0.168	0.165
Multiple	Environmental (Env)	0.412	0.051	8.08	0.000	0.452	0.439
	Social (Soc)	0.305	0.055	5.55	0.000		
	Governance (Gov)	0.152	0.060	2.53	0.012		
	Age	0.045	0.032	1.41	0.160		
	Gender	-0.022	0.038	-0.58	0.563		



	Education	0.060	0.040	1.50	0.135		
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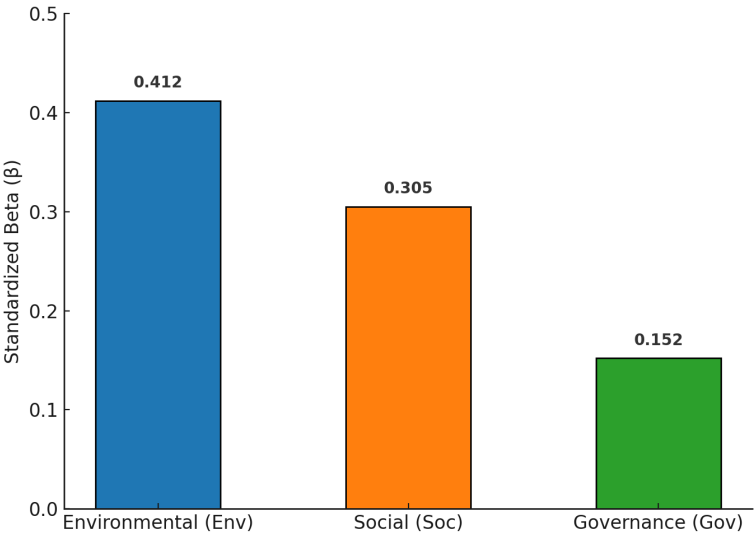
**Note:** Dependent variable: Investment Decision (ID).  $p < 0.05$  indicates significance.

**Simple Regression Results:**

- **H01 (Environmental):** Environmental significantly predicts ID ( $\beta = 0.579$ ,  $p = 0.000$ ,  $R^2 = 0.384$ ), rejecting H01. This suggests environmental factors strongly influence investment decisions, explaining 38.4% of the variance.
- **H02 (Social):** Social significantly predicts ID ( $\beta = 0.568$ ,  $p = 0.000$ ,  $R^2 = 0.336$ ), rejecting H02. Social factors account for 33.6% of the variance, indicating a robust effect.
- **H03 (Governance):** Governance significantly predicts ID ( $\beta = 0.248$ ,  $p = 0.018$ ,  $R^2 = 0.168$ ),

rejecting H03, but with a weaker effect, explaining only 16.8% of the variance.

**Multiple Regression Results:** The multiple regression model, incorporating all ESG factors and controls, is significant ( $F(6,241) = 33.12$ ,  $p < 0.001$ ,  $R^2 = 0.452$ ). Environmental ( $\beta = 0.412$ ,  $p = 0.000$ ) remains the strongest predictor, followed by Social ( $\beta = 0.305$ ,  $p = 0.000$ ) and Governance ( $\beta = 0.152$ ,  $p = 0.012$ ). Demographic controls are non-significant, suggesting ESG factors drive decisions independently of age, gender, or education. The model explains 45.2% of the variance in ID, a moderate effect size, with adjusted  $R^2$  (0.439) indicating good fit after accounting for predictors.



**Figure 3: Regression Betas**

Environmental factors exert the strongest influence, likely due to India's increasing focus on climate policies and investor awareness of environmental risks (Fu & Li, 2023). Social factors also play a substantial role, aligning with stakeholder expectations for ethical practices (Srivastav et al., 2024). Governance, while significant, has a weaker effect, possibly due to inconsistent corporate governance practices in India (Maji & Lohia, 2023). The multiple regression reveals that ESG factors collectively account for nearly half of the variance in investment decisions, underscoring their combined importance. The lower beta for Governance in the multiple model (vs. simple regression) suggests shared variance with other ESG factors, highlighting the need for integrated models. The non-significant demographic controls imply broad applicability of findings across investor profiles, though the young, educated sample may inflate ESG effects.

**FINDINGS & CONCLUSION:**

The empirical analysis conducted in this study provides compelling evidence on the role of Environmental, Social, and Governance (ESG) factors in shaping individual investors' decisions in the Indian stock

market. Drawing from the correlation and regression results, the findings reveal significant positive relationships between each ESG pillar and investment decisions, leading to the rejection of all null hypotheses. Specifically, the Pearson correlation matrix indicated moderate to strong positive associations, with environmental factors showing the highest correlation ( $r = 0.62$ ,  $p < 0.01$ ), followed by social ( $r = 0.58$ ,  $p < 0.01$ ) and governance ( $r = 0.41$ ,  $p < 0.01$ ). These correlations underscore a linear and positive interplay, suggesting that investors increasingly view ESG as integral to risk assessment and value creation.

In the regression analyses, simple linear models confirmed the individual impacts: environmental factors ( $\beta = 0.579$ ,  $p < 0.001$ ,  $R^2 = 0.384$ ) explained 38.4% of the variance in investment decisions, social factors ( $\beta = 0.568$ ,  $p < 0.001$ ,  $R^2 = 0.336$ ) accounted for 33.6%, and governance factors ( $\beta = 0.248$ ,  $p = 0.018$ ,  $R^2 = 0.168$ ) contributed 16.8%. The multiple regression model, which integrated all ESG factors along with demographic controls, yielded an overall  $R^2$  of 0.452 (adjusted  $R^2 = 0.439$ ,  $F(6,241) = 33.12$ ,  $p < 0.001$ ), indicating that ESG factors collectively explain

approximately 45% of the variance in investment decisions—a moderate yet substantively meaningful proportion. In this integrated model, environmental factors remained the strongest predictor ( $\beta = 0.412$ ,  $p < 0.001$ ), followed by social ( $\beta = 0.305$ ,  $p < 0.001$ ) and governance ( $\beta = 0.152$ ,  $p = 0.012$ ), with demographics proving non-significant. This hierarchy suggests that in the Indian context, environmental concerns—such as carbon emissions and resource management—resonate most strongly with investors, potentially due to heightened regulatory scrutiny under SEBI's Business Responsibility and Sustainability Reporting (BRSR) framework and growing public awareness of climate risks amid India's vulnerability to environmental challenges like extreme weather events.

These findings align with prior literature but offer nuanced insights into the Indian market. For instance, the prominence of environmental factors echoes global studies where sustainability drives investor preferences (Aich et al., 2021; Fu & Li, 2023), yet contrasts with Parikh et al. (2023), who found environmental impacts negative on shareholder wealth due to implementation costs in India. The positive effect observed here may reflect a shift among individual investors toward long-term resilience over short-term burdens, particularly among the study's younger, educated sample (71.4% aged 21–30). Social factors' robust influence supports stakeholder theory (Freeman, 1984), highlighting how labor practices and community engagement enhance reputational appeal and mitigate social risks, consistent with Srivastav et al. (2024). Governance, while significant, exerts a weaker effect, possibly attributable to persistent challenges like board entrenchment and transparency issues in Indian firms (Bodhanwala & Bodhanwala, 2022; Maji & Lohia, 2023), which may erode investor confidence despite reforms.

Theoretically, this study contributes modestly by validating ESG's applicability in an emerging market like India, where economic growth intersects with sustainability imperatives. It extends existing research by demonstrating the relative dominance of environmental factors among individual investors, a finding that could inform refinements to stakeholder theory in context-specific settings—e.g., emphasizing material ESG issues amid regulatory evolution. Practically, the results hold relevance for multiple stakeholders. For business organizations, prioritizing ESG integration can attract retail investor capital, potentially lowering funding costs and enhancing market positioning; firms should focus on transparent environmental reporting to capitalize on this trend. Policymakers, particularly SEBI, can leverage these insights to strengthen ESG disclosure mandates, such as expanding BRSR requirements to include standardized metrics for individual investor accessibility, thereby fostering market transparency and sustainable capital flows. For Indian stock market investors, especially millennials, the findings encourage ESG-aligned portfolios, which may yield not only ethical satisfaction but also superior risk-adjusted returns, as evidenced by the moderate variance explained.

In conclusion, this study affirms that ESG factors significantly and positively influence individual investors' decisions in India, with environmental aspects leading the charge. This paradigm shift toward responsible investing reflects broader global trends but is uniquely shaped by India's regulatory landscape and demographic dynamics. By aligning investments with sustainability, stakeholders can drive long-term value creation, meet regulatory expectations, and contribute to societal goals. While the study offers practical guidance, its replicative nature highlights the need for deeper explorations, such as prioritizing ESG pillars or examining institutional investors, to further advance the field.

## LIMITATIONS & FUTURE SCOPE OF THE STUDY:

Despite providing valuable empirical insights into the influence of Environmental, Social, and Governance (ESG) factors on individual investors' decisions in the Indian stock market, this study is subject to several limitations that warrant acknowledgment to contextualize the findings and guide interpretations. First, the reliance on self-reported data through an online questionnaire introduces potential biases, such as social desirability bias, where respondents may overstate their consideration of ESG factors to align with perceived societal norms of sustainable investing (Podsakoff et al., 2003). This could inflate the reported impacts, particularly in a context like India where ESG awareness is rapidly growing but not uniformly internalized. Second, the use of convenience sampling, while practical, restricts the sample to 248 primarily urban, young (71.4% aged 21–30), and educated respondents, limiting generalizability to broader investor segments, including institutional investors, foreign portfolio investors, retail investors in rural or less financially literate areas, and those from diverse socioeconomic backgrounds. This sampling bias may overrepresent ESG-conscious demographics, such as millennials, who are more inclined toward sustainability (Srivastav et al., 2024). Third, the study does not prioritize or rank the relative importance of the environmental, social, and governance dimensions, potentially overlooking nuanced investor preferences where one pillar (e.g., environmental) might dominate others in decision-making. Fourth, the cross-sectional design captures a snapshot in time, constraining the ability to observe dynamic shifts in ESG awareness, perceptions, and behaviors amid evolving regulatory frameworks like SEBI's BRSR mandates or global sustainability trends. Additionally, the adapted questionnaire, while reliable and valid in this study, has not been extensively validated in the specific Indian cultural and market context, which could affect measurement accuracy given regional variations in ESG interpretations (e.g., emphasis on social issues in labor-intensive sectors). Finally, the moderate  $R^2$  value (0.452) in the multiple regression indicates that unmeasured variables—such as financial literacy, market volatility, or behavioral biases—may also influence investment decisions, suggesting the model's

explanatory power could be enhanced with additional controls.

These limitations, while inherent to the study's scope and resources, do not undermine its core contributions but highlight opportunities for refinement. Future research can address these gaps by adopting a broader and more diverse sampling framework, incorporating institutional investors, fund managers, foreign stakeholders, and underrepresented groups (e.g., rural investors) through stratified or probability sampling to improve external validity and generalizability. Longitudinal studies would be particularly beneficial, tracking changes in ESG awareness, attitudes, and investment behaviors over time, especially as India's sustainability regulations mature and global events like climate conferences influence perceptions (Bodhanwala & Bodhanwala, 2022). Moreover, assigning weights or prioritizing ESG factors via techniques like analytic hierarchy process (AHP) or conjoint analysis could reveal subtle hierarchies in investor preferences, determining which dimensions (e.g., environmental vs. governance) exert the greatest sway in the Indian context. To enhance measurement precision, future efforts should validate and culturally adapt the questionnaire specifically for Indian investors, perhaps through pilot testing across diverse regions. Expanding the model to include moderating variables, such as digital transformation or economic conditions, and employing advanced methods like structural equation modeling (SEM) could provide deeper causal insights. Ultimately, comparative studies across emerging markets or integration with secondary data (e.g., ESG ratings from NSE-listed firms) would enrich the discourse, fostering a more holistic understanding of ESG's role in sustainable finance.

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