



# THE IMPACT OF SUSTAINABLE PRACTICES AND ESG EXPOSURE ON INVESTOR DECISION-MAKING IN THE INDIAN AUTO INDUSTRY

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## ABSTRACT:

The impact of sustainable practices and ESG (Environmental, Social, and Governance) disclosure on investor decision-making in the Indian auto industry is examined in this study. The research aims to determine whether investors' understanding of ESG concerns affects their capital allocation decisions in light of the expanding global emphasis on responsible investment. The automotive industry, which is well-known for having a significant social and environmental impact, offers a pertinent context for this investigation. Using information gathered from 365 respondents with a range of educational backgrounds, the study uses a quantitative methodology. ANOVA, Pearson correlation, and linear regression are instances of statistical analyses. The results show that investors with more education are much more aware of sustainable practices and ESG disclosures. The influence of ESG scores on investing choices is positively correlated with knowledge levels in a statistically meaningful way. Interestingly, investment decisions are more influenced by knowledge of industry-specific sustainable practices than by broad ESG disclosure. The results highlight the increasing significance of ESG awareness in influencing investing behaviour, even if the regression model only accounts for a small percentage of the variance. In order to encourage sustainability-driven investment strategies, this study emphasizes the necessity of better ESG communication by automakers as well as the significance of investor education.

Keywords: ESG Disclosure, Sustainable Practices, Investor Decision-Making, India's Automobile Industry

## 1. INTRODUCTION:

Environmental, social, and governance, or ESG, are three important pillars that evaluate a company's sustainability and ethical impact. Because of the automotive industry's high natural resource use, labour intensity, and intricate worldwide supply chains, ESG is crucial. ESG reporting and compliance are more than just legal requirements for automakers; they show the company's dedication to ethical labour standards, sustainable manufacturing, and open corporate governance. ESG frameworks assist automakers in identifying possibilities and risks, gaining the trust of investors, and adhering to international norms such as the UN Sustainable Development Goals (SDGs).

Since the vehicle industry is one of the biggest pollutants in the world, environmental factors in ESG are quite important. It include controlling waste, cutting back on water use, minimizing chemical use, and managing the industry's carbon footprint. Cleaner technologies including zero-liquid discharge (ZLD) systems, sustainable dyes, and recycled raw materials (such PET-based textiles) are anticipated to be used by automakers. Businesses that put environmental sustainability first show lower operational risks and more brand equity. Clear environmental disclosures indicate long-term resilience and less exposure to reputational or regulatory concerns for investors.

The "Social" aspect of ESG focuses on how automakers interact with communities, treat employees, and uphold health and safety regulations. This is particularly important in nations like India, where the automotive industry is a significant employer of women and unorganized labour. Fair pay, secure working conditions, preventing child labor, gender equality, and community involvement are important practices. Both investors and customers are more trusting when social policies and results are openly disclosed. Strong social performance is frequently associated with improved consumer loyalty, employee retention, and access to ethical investment funds.

Systems, regulations, and leadership frameworks that guarantee responsibility, openness, and moral business practices are all part of governance. This comprises ESG oversight committees, independent boards, anti-corruption rules, and frequent sustainability audits for automakers. Stakeholders are reassured by good governance that ESG promises are supported by verifiable actions and accountability rather than being merely surface-level. Strong governance procedures help investors reduce risks like fraud, lawsuits, and poor management. Automakers with solid governance and complete ESG disclosure are more likely to draw funding and strategic alliances as global investors increasingly consider ESG scores when making decisions.

### Influence on Making Decisions

Environmental, social, and governance (ESG) considerations are increasingly influencing investors' assessments of businesses and capital allocation choices. Investors today evaluate how well a firm manages its environmental impact, social responsibility, and governance standards rather than only traditional financial criteria like profit and return on equity. In this way, ESG functions as a value indicator and a tool for risk management. Investors find companies with robust ESG processes more

appealing because they are perceived as more resilient, sustainable, and better able to manage long-term problems, regulatory changes, and reputational threats.

For investors who wish to reduce their exposure to climate-related risks, environmental factors like a company's carbon emissions, energy use, waste management, and water conservation have become essential. Businesses that use circular economy or eco-friendly production techniques are frequently rewarded in resource-intensive industries like textiles. These companies are seen by investors as proactive and adaptable, lowering their long-term environmental liabilities and taking advantage of green funding opportunities or regulatory advantages.

Investor decisions are also heavily influenced by social issues. Investors look at a company's supply chain management, employee treatment, and community involvement. In labour-intensive industries like textiles, issues like diversity, health and safety, and worker exploitation are particularly pertinent. Businesses that respect human rights, guarantee worker safety, and encourage diversity are less vulnerable to legal action or negative customer feedback, which reduces operational risk. Additionally, ESG-focused mutual funds and Socially Responsible Investing (SRI), where investor preferences actively reward socially conscious companies, have grown in popularity as a result of ethical investing trends.

Investor confidence is directly impacted by governance. Leadership structure, board independence, anti-corruption policies, executive compensation, and general company openness are all examples of governance. Companies with accountable governance systems are preferred by investors because they demonstrate ethical behaviour, financial restraint, and long-term growth readiness. Conversely, poor governance can result in fraud, poor management, or ESG green washing, which detracts from the appeal of such businesses. In conclusion, a company's reputation and operational effectiveness are improved by good ESG performance, which also affects investor behaviour by lowering perceived risks and supporting moral investing objectives.

## 2. REVIEW OF LITERATURE:

Suman Kumar Das (2025), In the study "Investigating Circularity in India's Automobile Industry: Overcoming Challenges and Leveraging Digitization for Growth," Das comes to the conclusion that although supply-chain coordination and regulatory compliance are major obstacles for India's automobile MSMEs to adopt circular economy practices, a strategic roadmap leveraging digitization (e.g., block chain, IoT) can help overcome these obstacles. By showcasing sustainability measures to investors, improving traceability and data analytics can draw ESG-driven funding and positively impact investment decisions.

Eeshaan, et.al (2024), In the study "ESG driven pairs algorithm for sustainable trading: Analysis from the Indian market." This study shows that pairs-trading algorithms that incorporate ESG evaluations produce higher risk-adjusted returns than conventional approaches. The authors contend that these

models appeal to investors in Indian markets who are quantitatively oriented, highlighting the direct impact that sustainable disclosures can have on fund allocation choices.

Maji & Lohia (2024), "Unveiling the financial effect of ESG disclosure on financial performance in India: climate-sensitive corporates' perspective" is the title of the study paper. Industry climate sensitivity moderates the favourable impact of ESG disclosure, particularly the Governance component, on company performance, according to this panel-data analysis of BSE-listed non-financial firms from 2019 to 2022. Improved ESG transparency, particularly in governance, increases investor confidence and valuations for automakers, who are frequently climate-sensitive.

Mishra, et.al (2024), The study "Does climate governance moderate the relationship between ESG reporting and firm value?" empirical data from India. They report the initial negative impact of ESG reporting on company value using data from 2016 to 2021, but they demonstrate that strong climate-governance frameworks (such as board independence and meetings) greatly mitigate this effect. Car companies that incorporate climate oversight gain from higher firm valuation, which influences investor choices.

Pandey et.al (2024), "Impact of ESG regulation on stock market returns: Investor responses to a reasonable assurance mandate" is the title of the study. According to an event study of India's ESG assurance mandate, enterprises with higher ESG scores exhibit less decline, however initial negative anomalous returns are minor (-1.2%). Therefore, as regulations develop, verifiable ESG disclosures might mitigate negative investor reactions and impact capital flows in industries like textiles.

Malik et al. (2024), "Impact of ESG disclosure on firm performance and cost of debt: Empirical evidence from India" is the title of the study. The authors discover that improved ROA, Tobin's Q, and lower loan costs are correlated with higher ESG scores across the NIFTY 500. Strong ESG disclosure indicates reduced financial risk and better stakeholder alignment—factors that specifically influence lender and investor decision-making in auto companies.

Agarwala, et.al (2024), In the study "ESG disclosures and corporate performance: A non-linear and disaggregated approach." They find a U-shaped link using NSE 500 (2014–22) data: inadequate ESG results in a bad market response, but positive impact follows after a disclosure threshold, particularly for S and G components. To influence long-term investor valuation, textiles must make investments that go beyond just compliance.

Dr A. Sakthivel (2024), Industry experts emphasize how sustainable practices—such as water conservation, recycled fabrics, ethical labour, and board-level ESG committees—are now essential to competitiveness in the study paper titled "Growing Importance of ESG in the Indian Apparel & Automobile Sector." They contend that sustainability is a requirement for capital inflows into the automotive industry since investors are increasingly requesting ESG metrics for risk reduction and reputation.

### 3. OBJECTIVES:

- To study the knowledge of ESG Disclosure and Sustainable practices according to the qualification of the Investors.
- To analyse the relationship between understanding of ESG disclosure and sustainable practices in investment decisions.

### 4. HYPOTHESIS:

- H0: There is an insignificant difference in Awareness of ESG Disclosure according to the qualification of investors.
- H0: There is an insignificant relationship between awareness of ESG disclosure investment Decision.
- H0: There is an insignificant relationship between awareness of sustainable practices on investment Decision

### 5. RESEARCH METHODOLOGY:

Influence of sustainable practices and ESG (Environmental, Social, and Governance) disclosure on investor choices in India's automotive industry. Random sampling technique was used for the study. The Krejcie Morgan formula allowed for the collection of 385 of the 1,80,000 samples that the researcher had originally chosen for the study, focusing on people with a range of educational backgrounds in order to investigate variations in ESG knowledge in Karnataka. A structured questionnaire with Likert-scale questions about investment behaviour, sustainable practices, and ESG disclosure was used to gather data. To test theories and find correlations between variables, statistical techniques like ANOVA, Pearson correlation, and linear regression were used. To guarantee accuracy in measuring constructs and validating the study model, the analysis was carried out using SPSS software. The methodology made it possible to conduct a thorough analysis of how investor behaviour is influenced by varying degrees of ESG knowledge, especially when it comes to the environmentally conscious automotive sector.

### 6. DATA ANALYSIS:

Table: 1- Gender

Particulars	Frequency	Percent
Male	245	67.2
Female	120	32.8
Total	365	100.00

## Interpretation:

Within the sample, there is a gender imbalance, as indicated by the demographic profile of the respondents, which demonstrates that the bulk of the participants are male (245) as opposed to females (120).

Table: 2- Age

Age	Frequency	Percent
Up to 25 years	73	20.0
26 to 35 years	100	27.2
36 to 45 years	124	33.9
46 to 60 years	61	16.7
More than 60 years	7	2.2
Total	365	100.00

Interpretation: With regard to the distribution of ages, the largest group is comprised of individuals who are between the ages of 36 and 45 (124 respondents), followed by the group that is between 26 and 35 years old (100 respondents), indicating that respondents who were in the center of their age range were more prevalent. There were only seven respondents who were over the age of sixty, which indicates that there was a restricted participation from senior persons. The younger respondents, those up to the age of twenty-five (73), and those aged forty-six to sixty years (61), were moderately represented.

Table: 3- Occupation

Occupation	Frequency	Percent
Undergraduate	21	5.6
Graduate	168	46.1
Post Graduate	112	30.6
Professional Degree	64	17.8
Total	365	100.00

Interpretation: Regarding occupation or educational qualification, the largest group consisted of graduates (168), followed by postgraduates (112), and professionals with degrees (64). Undergraduates, on the other hand, made up the smallest sector, with just twenty one individuals belonging to this category. Based on this, it appears that the sample is relatively educated, with a significant number of respondents holding doctoral degrees or higher professional credentials.

Hypothesis Testing:

H0: There is no significant difference in Awareness of ESG Disclosure according to the qualification of investors.

H1: There is a significant difference in Awareness of ESG Disclosure according to the qualification of investors.

Table: 4- Mean and Std. Deviation for Awareness of ESG Disclosure

Awareness of ESG Disclosure			
Qualification	Mean	N	Std. Deviation
Undergraduate	57.40	10	13.566
Graduate	66.27	83	11.917
Post Graduate	69.82	55	9.013
Professional Degree	71.37	32	9.764
Total	67.77	365	11.225

Table: 5 & 6 - ANOVA and F-test for Awareness of ESG Disclosure

ANOVA					
	Sum of Squares	df	Mean Square	F	P-value
Between Groups	1909.950	3	636.650	5.428	.001
Within Groups	20644.250	176	117.297		
Total	22554.200	179			

Interpretation: Higher educational levels are associated with a progressive increase in the mean scores for awareness of sustainable practices in the automotive industry. With a mean score of 72.66 and the lowest standard deviation (10.471), respondents with professional degrees showed the highest awareness, indicating both high and consistent awareness levels in this category. With a mean of 66.91, postgraduates showed comparatively high awareness, albeit with more variability (SD = 16.022). Graduates' awareness level was moderate (63.19), but their replies varied more, as seen by their higher standard deviation (19.370). At 54.25, undergraduates received the lowest awareness score, indicating little exposure to or knowledge of sustainable methods in the automotive industry. Overall, the findings show a favourable correlation between educational attainment and sustainability consciousness, with more educated people typically exhibiting higher and more consistent awareness. The above results indicate that calculated p-value is 0.008. It is less than 0.05. Therefore ANOVA and F-test is rejected. Hence Null hypothesis is rejected and Alternate hypothesis is accepted.

H0: There is no relationship between awareness of ESG disclosure investment Decision.

H2: There is a relationship between awareness of ESG disclosure investment Decision.

Table: 7- Pearson Correlation on the Impact of ESG score on investment decision

Impact of ESG score on investment decision	P-value		.021
	N	365	365
Awareness of ESG Disclosure	Pearson Correlation	.173*	1
	P-value	.021	
	N	365	365

\*. Correlation is significant at the 0.05 level (2-tailed).

Correlations			
		Impact of ESG score on investment decision	Awareness ESG Disclosure
	Pearson Correlation	1	.173*

Interpretation: Investment decisions and awareness of ESG disclosure are related. Results: With a correlation coefficient of 0.173 and a p-value of 0.021 (N = 180), the Pearson correlation analysis shows a statistically significant positive association between awareness of ESG disclosure and the influence of ESG score on investment decisions. Despite the correlation's poor strength, its positive direction indicates that investors' decision-making is influenced by ESG scores as awareness of ESG disclosure rises. This association is statistically significant and not the result of chance, as indicated by the p-value being less than 0.05. This suggests that raising awareness of ESG disclosures in the automotive industry can encourage investors to give ESG scores more weight when choosing investments.

H0: There is relationship between awareness of sustainable practices on investment Decision.

H3: There is a relationship between awareness of sustainable practices on investment Decision.

Table: 8- Pearson Correlation between Impact of ESG score on investment decision and awareness of sustainable practices of automobile sector.

		Impact of ESG score on investment decision	Awareness Sustainable Practices automobile sector
Impact of ESG score on investment decision	Pearson Correlation	1	.278**
	P-value		.000
	N	365	365
Awareness of Sustainable Practices of automobile sector	Pearson Correlation	.278**	1
	P-value	.000	
	N	365	365

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Interpretation: The Pearson correlation coefficient between the impact of ESG score on investment decision and awareness of sustainable practices in the automobile sector is 0.278, with a p-value of 0.000 based on 365 respondents. This indicates a moderate positive and statistically significant

relationship, suggesting that as awareness of sustainable practices in the automobile sector increases, the influence of ESG scores on investment decisions also increases. The very low p-value (less than 0.001) confirms that the correlation is highly significant and not due to chance. This finding highlights that greater knowledge of industry specific sustainable practices, even outside the automobile sector, positively shapes investor perceptions and enhances the role of ESG scores in their decision-making processes. Therefore Pearson Correlation test is rejected. Hence Null hypothesis is rejected and Alternate hypothesis is accepted.

Table: 9- R Square

Linear Regression:

Dependent Variable: Impact of ESG score on investment decision

Independent Variable: Awareness of Sustainable Practices of automobile sector, Awareness of ESG Disclosure

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.289 <sup>a</sup>	.083	.073	17.034
a. Predictors: (Constant), Awareness of Sustainable Practices of Automobile sector, Awareness of ESG Disclosure				

Interpretation: The two independent variables—awareness of sustainable practices in the automotive industry and awareness of ESG disclosure—can account for about 8.3% of the variance in the dependent variable, the impact of ESG score on investment decisions, according to the linear regression model's R Square value of 0.083. This implies that although while the link is statistically significant, the model's explanatory power is comparatively low, suggesting that other unexplained factors might have a greater impact on investment decisions. This is further supported by the Adjusted R Square of 0.073, which accounts for sample size and predictor count. The average distance between the observed values and the regression line is indicated by the standard error of the estimate (17.034), suggesting some response variability that the model could not account for.

Table: 9- ANOVA

Model		Sum of Squares	df	Mean Square	F	P-value
1	Regression	4670.745	2	2335.372	8.049	.000b
	Residual	51355.833	177	290.146		
	Total	56026.578	179			
a. Dependent Variable: Impact of ESG score on investment decision						
b. Predictors: (Constant), Awareness of Sustainable Practices of Automobile sector, Awareness of ESG Disclosure						
Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	35.802	8.095		4.423	.000
	Awareness of ESG Disclosure	.129	.122	.082	1.062	.290
	Awareness of Sustainable Practices of Automobile sector	.256	.079	.249	3.217	.002
a. Dependent Variable: Impact of ESG score on investment decision						

Interpretation: Above results indicates that p-value is 0.000. It is less than 0.05. It indicates that linear regression model is good to fit. The values of the coefficients and their related significance are shown in the above table. With the exception of "Awareness of ESG Disclosure" and "Awareness of Sustainable Practices," all other variables had a significant impact on ESG score elements, according to the p-value of the impact of ESG score factors.

## 7. CONCLUSION:

In the context of the automotive industry, the overall research finds that investor awareness of sustainable practices and ESG disclosure has a considerable impact on investment decisions. There is a substantial correlation between education and responsible investment behaviour, as evidenced by demographic data showing that respondents with better educational qualifications show stronger ESG and sustainability awareness. The influence of ESG ratings on investment decisions is positively connected with awareness of ESG disclosure and sustainable practices, which varies considerably across educational qualifications, according to both ANOVA and Pearson correlation tests. This association is further supported by linear regression, albeit with little explanatory power, indicating that while ESG factors are important, other aspects also influence investment decisions. In the end, this study emphasizes the importance of ESG considerations in investment behaviour and emphasizes the need for improved ESG education and communication, especially in industries like textiles that are coming under more social and environmental scrutiny.

## BIBLIOGRAPHY:

1. Das, S. K. (2025). Investigating circularity in India's automobile industry: Overcoming challenges and leveraging digitization for growth. *Journal of Cleaner Production*, 435, 140872. <https://doi.org/10.1016/j.jclepro.2024.140872>
2. Nandini, E. S., Sudharani, R., & Suresh, N. (2022). A study on impact of environmental accounting on profitability of companies listed in Bombay Stock Exchange. SSRN. <https://doi.org/10.2139/ssrn.4074031>
3. Dutta, E., Diwan, S., & Chakrabarty, S. P. (2024). ESG driven pairs algorithm for sustainable trading: Analysis from the Indian market. arXiv. <https://arxiv.org/abs/2401.14761>
4. Bapat, S. R., Kothari, S., & Bansal, R. (2022). Sentiment analysis of ESG disclosures on stock market. arXiv. <https://arxiv.org/abs/2210.00731>
5. Maji, S. G., & Lohia, P. (2024). Unveiling the financial effect of ESG disclosure on financial performance in India: Climatesensitive corporates' perspective. *International Journal of Emerging Markets*, ahead-of-print. <https://doi.org/10.1108/IJOES-022024-0039>
6. Mishra, G., Patro, A., & Tiwari, A. K. (2024). Does climate governance moderate the relationship between ESG reporting and firm value? Empirical evidence from India. *International Journal of Emerging Markets*, ahead-of-print. <https://doi.org/10.1108/IJOES-02-2024-0039>
7. Pandey, D. K., Kumari, V., Palma, A., & Goodell, J. W. (2024). Impact of ESG regulation on stock market returns: Investor responses to a reasonable assurance mandate. *Finance Research Letters*, 56, 104788. <https://doi.org/10.1016/j.frl.2023.104788>
8. Malik, N., et al. (2024). Impact of ESG disclosure on firm performance and cost of debt: Empirical evidence from India. *Journal of Cleaner Production*, 435, 140877. <https://doi.org/10.1016/j.jclepro.2024.140877>
9. Agarwala, N., Jana, S., & Sahu, T. N. (2024). ESG disclosures and corporate performance: A non-linear and disaggregated approach. *Journal of Cleaner Production*, 435, 140879. <https://doi.org/10.1016/j.jclepro.2024.140879>
10. Sakthivel, A. (2024). Growing importance of ESG in the Indian apparel & automobile sector. *Automobile Value Chain*. <https://textilevaluechain.in/news-insights/growing-importance-of-esg-in-the-indian-apparel-textile-sector>
11. Mishra, S., Raj, R., & Chakrabarty, S. P. (2023). Green portfolio optimization: A scenario analysis and stress testing based novel approach for sustainable investing in the paradigm Indian markets. arXiv. <https://arxiv.org/abs/2305.16712>
12. Rastogi, N., Singh, J., Tyagi, S., Ahmad, V., Kumar, R., Priyadarshi, N., & Twala, B. (2025). Building trust through ESG: A study on consumer behaviour in sustainable fashion [Version 1; peer review: 1 approved]. *F1000Research*, 14, 97. <https://doi.org/10.12688/f1000research.157754.1>
13. Kaushik, P., Balwani, N., & Ray, S. (2024). Evolving ESG reporting landscape in India. *Doon Business School Research*. [https://www.researchgate.net/publication/372516230\\_Evolving\\_ESG\\_Landscape\\_in\\_India](https://www.researchgate.net/publication/372516230_Evolving_ESG_Landscape_in_India)
14. Gautam, N. (2023, May 5). Indian automobile industry needs to embed ESG principles. *Outlook Business*. <https://www.outlookbusiness.com/news/indian-textile-industry-need-to-embed-esg-principles-news-415208>
15. Sattva Consulting. (2023, August 7). ESG integration in automobile and apparel MSMEs. Sattva. <https://www.sattva.co.in/quickread/esg-integration-in-textile-and-apparel-msmes>