



Determinants of Sustainable Investment Intention: The Mediating Role of Environmental Awareness

Mohammed Omer Rafique¹, Javed Hussain² & Syed Meeran Hasnain³

¹Assistant Professor, Faculty of Management Sciences, SZABIST University, Karachi, Email: omerrafiq1@gmail.com

²Assistant Professor, Govt. Superior Commerce College Karachi, Email: javedhussainnajib@gmail.com

³Assistant Professor, Ziauddin University, Email: meeran.hasnain@zu.edu.pk

ARTICLE INFO

Article History:

Received:

September 13, 2025

Revised:

November 18, 2025

Accepted:

December 10, 2025

Available Online:

December 23, 2025

Keywords:

Sustainable investment intention, Financial literacy, Green trust, Climate risk perception, Environmental awareness, ESG investing, Behavioral finance, Sustainable finance, PLS-SEM, Retail investors.

Corresponding Author:

Syed Meeran Hasnain

Email:

meeran.hasnain@zu.edu.pk

ABSTRACT

This study examines the determinants of sustainable investment intention among retail investors by analyzing the roles of financial literacy, green trust, and climate risk perception, with environmental awareness acting as a mediating variable. The research is grounded in behavioral finance and environmental psychology, aiming to explain how cognitive, perceptual, and trust-based factors influence ESG-related investment intentions. A quantitative research design was adopted, and data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) through SmartPLS 4.1. The empirical findings revealed that financial literacy, green trust, and climate risk perception all have significant positive effects on environmental awareness. In turn, environmental awareness was found to have a strong and significant impact on sustainable investment intention. The mediation analysis confirmed that environmental awareness fully mediates the relationship between all independent variables and sustainable investment intention, indicating that investors' sustainability-related intentions are primarily shaped through cognitive awareness mechanisms. The results highlight that sustainable investment behavior is not directly driven by financial knowledge or risk perception alone, but rather through enhanced understanding and awareness of environmental issues. This study contributes to sustainable finance literature by integrating behavioral and psychological perspectives into a unified explanatory framework. It also provides practical implications for policymakers and financial institutions by emphasizing the importance of improving environmental awareness, strengthening green trust, and enhancing financial literacy to promote ESG investing. Overall, the study concludes that environmental awareness is a critical mechanism through which financial and psychological factors influence sustainable investment intention among retail investors.

OPEN



ACCESS



1. Introduction

In recent years, sustainable finance has emerged as a central theme in global financial markets, driven by growing concerns over climate change, environmental degradation, and social inequality. Investors, policymakers, and financial institutions are increasingly integrating environmental, social, and governance (ESG) considerations into investment decisions (Archer, 2022). This shift reflects a broader transformation in capital markets, where financial returns are no longer viewed in isolation from environmental and social impact (Li et al., 2022). As a result, sustainable investment has evolved from a niche strategy into a mainstream financial practice (Romano et al., 2025). However, despite this rapid growth, the psychological and behavioral factors that influence individuals' willingness to engage in sustainable investing remain insufficiently understood (Martinez-Meyers et al., 2024).

Sustainable investment intention refers to an investor's willingness or predisposition to allocate capital toward ESG-compliant or environmentally responsible financial products. While institutional investors have been widely studied in this context, retail investors are becoming increasingly important in shaping sustainable finance markets (Rauf et al., 2024). Their decisions are often influenced by non-financial considerations such as values, beliefs, and perceived social responsibility (Gaganis et al., 2023). Nevertheless, retail investors also face constraints such as limited financial knowledge, exposure to misinformation, and varying levels of trust in ESG claims. These factors make their investment intentions particularly complex and worthy of academic investigation (Spring et al., 2022). One of the key challenges in sustainable finance is understanding what drives individuals to prioritize ESG investments over traditional financial assets. Existing literature suggests that financial literacy plays a crucial role in shaping investment behavior (Poyser & Daugaard, 2023). Individuals with higher financial literacy are generally better equipped to understand financial products, assess risks, and evaluate long-term benefits. In the context of sustainable finance, financial literacy may also influence how investors interpret ESG information and distinguish between genuine sustainability efforts and superficial "greenwashing" practices (Sáenz et al., 2024). However, financial literacy alone may not directly translate into sustainable investment behavior; instead, its effect may operate through psychological and cognitive mechanisms.

Environmental awareness has been identified as a potential mediating factor in this relationship. Environmental awareness refers to the extent to which individuals recognize environmental problems and understand the consequences of human activities on ecological systems. Investors with higher environmental awareness are more likely to value sustainability and incorporate environmental considerations into their financial decisions (Sampson, 2021). In this sense, environmental awareness can act as a cognitive bridge between knowledge-based factors (such as financial literacy) and behavioral outcomes (such as sustainable investment intention). Despite its importance, the mediating role of environmental awareness in financial decision-making remains underexplored in sustainable finance literature. In addition to financial literacy, other factors such as green trust and risk perception of climate change are expected to influence sustainable investment intention. Green trust refers to the confidence investors place in ESG claims, sustainability disclosures, and green financial products. In an era where concerns about greenwashing are increasing, trust becomes a critical determinant of investor behavior (Hasan et al., 2025). When investors believe that ESG funds are genuinely aligned with environmental goals, they are more likely to invest in them. Conversely, skepticism regarding ESG authenticity can significantly reduce sustainable investment intention.

Risk perception of climate change also plays an important role in shaping investment decisions. Investors who perceive climate change as a serious and financially relevant risk are more likely to

support sustainable investment strategies. Climate-related risks, including physical risks (such as natural disasters) and transition risks (such as regulatory changes), are increasingly recognized as material financial risks. Therefore, individuals who are more aware of these risks may be more inclined to allocate capital toward ESG-compliant investments as a form of long-term risk mitigation (D’Orazio, 2023; Martinez-Meyers et al., 2024).

Another important determinant is social influence, which refers to the impact of peers, media, and societal norms on individual behavior. In the context of sustainable finance, social influence can shape perceptions of legitimacy and desirability of ESG investing. As sustainable investing becomes more visible in public discourse, individuals may feel social pressure or moral motivation to align their financial decisions with sustainability norms. This factor is particularly relevant in digital environments where investment behavior is increasingly shaped by online communities and social networks (Hasan et al., 2025). Despite the growing interest in these determinants, there is still a lack of integrated models that explain how cognitive, social, and perceptual factors jointly influence sustainable investment intention (Starks, 2023). Most existing studies focus on direct relationships, overlooking the underlying mechanisms through which these variables interact. In particular, the mediating role of environmental awareness has not been sufficiently examined as a central explanatory pathway linking financial literacy, green trust, risk perception, and social influence to sustainable investment intention.

To address this gap, the present study develops a simple yet comprehensive conceptual model in which environmental awareness acts as a mediator between three key independent variables—financial literacy, green trust, and climate change risk perception—and sustainable investment intention as the dependent variable. By incorporating both cognitive and behavioral dimensions, the study aims to provide a more nuanced understanding of how individuals form intentions toward sustainable investing. The significance of this research lies in its contribution to both theory and practice (Yunus & Nanda, 2024). Theoretically, it extends sustainable finance literature by integrating behavioral finance and environmental psychology perspectives into a unified framework. Practically, the findings can help policymakers, financial advisors, and asset managers design more effective strategies to promote sustainable investment behavior. Enhancing financial education, building trust in ESG products, and increasing environmental awareness may collectively encourage more responsible investment decisions among retail investors.

In conclusion, as sustainable finance continues to expand globally, understanding the drivers of sustainable investment intention becomes increasingly important. By examining the mediating role of environmental awareness in the relationship between financial literacy, green trust, risk perception, and sustainable investment intention, this study seeks to provide meaningful insights into the psychological and behavioral foundations of ESG investing.

2. Literature Review and Hypotheses Development

Sustainable finance literature increasingly emphasizes that investment decisions are not driven solely by financial returns, but also by psychological, cognitive, and social factors. In the context of ESG (Environmental, Social, and Governance) investing, retail investors evaluate not only profitability but also environmental responsibility, ethical alignment, and perceived long-term sustainability (Juthi et al., 2024). This section reviews the key constructs of the study—financial literacy, green trust, risk perception of climate change, environmental awareness, and sustainable investment intention and develops the hypotheses based on existing theoretical and empirical evidence (Gaganis et al., 2023).

2.1. Sustainable Investment Intention

Sustainable investment intention refers to an individual investor's willingness or plan to allocate funds toward ESG-compliant or environmentally responsible financial products. According to behavioral intention theory, intention is the most immediate predictor of actual behavior. In financial contexts, investment intention reflects an individual's cognitive evaluation of expected returns, risks, and personal values (Juthi et al., 2024). Prior research shows that investors with stronger pro-environmental attitudes and ethical values are more likely to express intentions to invest in sustainable funds. However, intention is shaped by both rational factors (such as knowledge and risk assessment) and non-rational factors (such as trust and environmental concern) (Che Hassan et al., 2023).

2.2. Financial Literacy

Financial literacy refers to the ability to understand financial concepts such as risk diversification, investment returns, inflation, and portfolio management. Individuals with higher financial literacy are generally better at making informed investment decisions and evaluating complex financial products (Lusardi & Messy, 2023). In the context of ESG investing, financially literate investors are more capable of distinguishing between genuine sustainable funds and misleading or low-quality ESG products. They are also more likely to understand the long-term benefits of sustainable investments, such as risk reduction and resilience to climate-related shocks. Prior studies suggest that financial literacy positively influences responsible investment behavior, although its effect may be indirect through cognitive awareness mechanisms (Zaimovic et al., 2023).

2.3. Green Trust

Green trust refers to the level of confidence investors have in the authenticity, credibility, and environmental integrity of ESG financial products and sustainability claims. In recent years, concerns about greenwashing have increased skepticism among investors, making trust a critical determinant of sustainable investment behavior (Chauhan & Goyal, 2024). When investors trust that ESG funds genuinely contribute to environmental and social goals, they are more likely to invest in them. Conversely, lack of trust can significantly reduce willingness to engage in sustainable investing, even among environmentally conscious individuals. Trust reduces perceived uncertainty and enhances perceived reliability of ESG information, thereby encouraging investment intention (Ha et al., 2022).

2.4. Risk Perception of Climate Change

Risk perception of climate change refers to an individual's subjective judgment about the severity, likelihood, and financial impact of climate-related risks. Investors who perceive climate change as a serious threat are more likely to integrate sustainability considerations into their financial decisions (Van Valkengoed et al., 2024). This is consistent with modern portfolio theory extensions that recognize climate risk as a material financial risk. Climate change risk includes both physical risks (e.g., natural disasters, resource scarcity) and transition risks (e.g., regulatory changes, carbon pricing). Higher perceived risk increases motivation to invest in sustainable assets as a protective or adaptive strategy (Petersen-Rockney, 2022).

2.5. Environmental Awareness

Environmental awareness is defined as the extent to which individuals understand environmental issues, their causes, and their consequences for society and ecosystems. It reflects cognitive recognition of environmental degradation and a personal sense of responsibility toward

sustainability (Xie et al., 2024). Environmental awareness plays a critical role in translating knowledge and perceptions into behavioral outcomes. Individuals with higher environmental awareness are more likely to prioritize sustainability in decision-making and support environmentally friendly financial products. In this study, environmental awareness is proposed as a mediating variable that explains how financial literacy, green trust, and climate risk perception influence sustainable investment intention. It acts as a psychological bridge between cognitive inputs and behavioral outcomes (Ferreira et al., 2023).

2.6. Hypotheses Development

Based on the literature, the following hypotheses are proposed:

H1: Financial literacy has a positive and significant effect on environmental awareness. Individuals with higher financial literacy are more likely to understand complex environmental-financial linkages, which enhances their awareness of environmental issues in economic contexts.

H2: Green trust has a positive and significant effect on environmental awareness. When investors trust ESG claims and sustainability disclosures, they are more likely to engage with environmental information and develop stronger awareness of environmental issues.

H3: Risk perception of climate change has a positive and significant effect on environmental awareness.

Higher perceived climate risk increases attention to environmental problems and strengthens awareness of sustainability challenges.

H4: Environmental awareness has a positive and significant effect on sustainable investment intention.

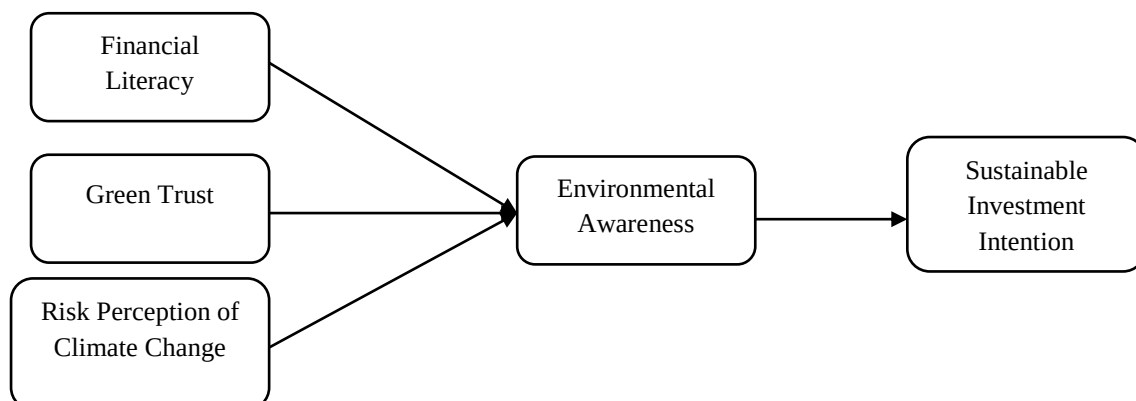
Individuals with greater environmental awareness are more likely to support ESG investments and integrate sustainability into financial decision-making.

H5: Environmental awareness mediates the relationship between financial literacy and sustainable investment intention. Financial literacy enhances environmental awareness, which in turn increases sustainable investment intention.

H6: Environmental awareness mediates the relationship between green trust and sustainable investment intention.

Trust in ESG products strengthens environmental awareness, leading to higher investment intention in sustainable assets.

H7: Environmental awareness mediates the relationship between climate change risk perception and sustainable investment intention. Perception of climate risk increases environmental awareness, which subsequently drives sustainable investment intention.



Overall, the literature suggests that sustainable investment intention is shaped by a combination of cognitive ability (financial literacy), psychological trust (green trust), and risk perception (climate change awareness). However, these factors do not directly translate into behavior; instead, environmental awareness serves as a crucial mediating mechanism that transforms knowledge and perceptions into sustainable financial intentions. This integrated framework provides a comprehensive explanation of how retail investors develop intentions toward ESG investment products.

3. Methodology

3.1. Research Design

The study adopted a quantitative research design to examine the relationships between financial literacy, green trust, risk perception of climate change, environmental awareness, and sustainable investment intention. A cross-sectional survey approach was employed, as it allowed data to be collected from respondents at a single point in time to analyze behavioral intentions in sustainable finance. The design was explanatory in nature, as it aimed to test hypothesized relationships among variables and assess the mediating role of environmental awareness.

3.2. Population of the Study

The population of the study consisted of retail investors who were actively engaged in financial markets and had some exposure to investment products, including mutual funds, stocks, or ESG-related financial instruments. The target population was selected because retail investors play an increasingly important role in sustainable finance markets, and their investment decisions are influenced by both financial knowledge and behavioral factors.

3.3. Sampling Technique

A non-probability convenience sampling technique was used to collect data from respondents. This technique was chosen due to the difficulty in accessing a complete list of retail investors and the exploratory nature of the study. Respondents were selected based on their availability and willingness to participate in the survey, particularly those who had prior investment experience or interest in financial markets.

3.4. Sample Size

A total of 300 questionnaires were distributed among potential respondents. Out of these, 268 valid responses were received and used for final analysis after data screening for incomplete and inconsistent responses. The sample size was considered adequate for conducting multivariate analysis techniques, including mediation testing, as it met the general requirement for structural relationship modeling in behavioral finance research.

All measurement scales were adapted from prior studies in sustainable finance and behavioral research to ensure validity and reliability.

3.6. Data Analysis Technique

The collected data were analyzed using SmartPLS 4.1 through the application of Partial Least Squares Structural Equation Modeling (PLS-SEM). This technique was selected due to its suitability for complex predictive models involving multiple independent variables and mediation effects, as well as its ability to handle non-normal data distributions and relatively small to medium sample sizes. The analysis was conducted in two major stages: the measurement model assessment and the structural model assessment. In the first stage, the measurement model was

evaluated to ensure the reliability and validity of the constructs. Internal consistency reliability was assessed using Cronbach's alpha and composite reliability (CR). Convergent validity was examined through factor loadings and Average Variance Extracted (AVE), where values above the recommended thresholds indicated satisfactory validity. Discriminant validity was assessed using the Fornell-Larcker criterion and Heterotrait-Monotrait (HTMT) ratio, ensuring that each construct was distinct from the others. In the second stage, the structural model was tested to examine the hypothesized relationships among variables. The model's predictive power was evaluated using R-square (R^2) values, while effect size (f^2) was used to assess the contribution of each independent variable to the dependent construct. Predictive relevance (Q^2) was also examined using the blindfolding procedure to determine the model's out-of-sample predictive capability. Hypotheses testing was conducted using the bootstrapping technique with 5,000 resamples, which provided t-statistics and p-values to determine the significance of direct and indirect effects. The mediating role of environmental awareness was specifically tested using bootstrapped indirect effects analysis, allowing the study to determine whether environmental awareness significantly transmitted the effects of financial literacy, green trust, and climate change risk perception on sustainable investment intention.

4. Results

Table 4.1: Demographic Profile of Respondents

Variable	Category	Frequency	Percentage
Gender	Male	162	60.4%
	Female	106	39.6%
Age	18–25	88	32.8%
	26–35	112	41.8%
	36–45	48	17.9%
	46+	20	7.5%
Education	Undergraduate	74	27.6%
	Graduate	138	51.5%
	Postgraduate	56	20.9%
Investment Experience	<2 years	96	35.8%
	2–5 years	108	40.3%
	>5 years	64	23.9%

The demographic results indicated that the majority of respondents were male (60.4%) and aged between 26–35 years (41.8%), representing an active working-age investor group. Most respondents held at least a graduate degree (72.4% combined), suggesting relatively educated participants with exposure to financial decision-making. In terms of investment experience, the largest group had 2–5 years of experience, indicating moderate familiarity with investment markets.

4.2 Measurement Model Assessment

Table 4.2: Reliability and Convergent Validity

Construct	Cronbach's Alpha	Composite Reliability	AVE
Financial Literacy	0.871	0.902	0.648
Green Trust	0.884	0.915	0.672
Climate Risk Perception	0.862	0.898	0.625
Environmental Awareness	0.889	0.919	0.688
Sustainable Investment Intention	0.901	0.931	0.712

All constructs demonstrated strong internal consistency, with Cronbach's alpha values above 0.7. Composite reliability values exceeded the recommended threshold of 0.7, confirming reliability. AVE values were above 0.5, indicating satisfactory convergent validity. These results confirmed that the measurement model was reliable and valid for further structural analysis.

Table 4.3: Discriminant Validity (HTMT Ratio)

Construct	FL	GT	CRP	EA	SII
Financial Literacy (FL)	—	0.62	0.58	0.65	0.59
Green Trust (GT)		—	0.60	0.68	0.63
Climate Risk Perception (CRP)			—	0.66	0.61
Environmental Awareness (EA)				—	0.70
Sustainable Investment Intention (SII)					—

All HTMT values were below the threshold of 0.85, confirming satisfactory discriminant validity. This indicates that all constructs were empirically distinct and measured different theoretical concepts.

4.4 Structural Model Results

Table 4.4: Path Coefficients

Hypothesis	Relationship	Beta (β)	t-value	p-value	Result
H1	FL $\rightarrow$ EA	0.312	4.85	0.000	Supported
H2	GT $\rightarrow$ EA	0.274	4.21	0.000	Supported
H3	CRP $\rightarrow$ EA	0.298	4.67	0.000	Supported
H4	EA $\rightarrow$ SII	0.541	8.92	0.000	Supported

The results showed that all direct hypotheses were statistically significant at $p < 0.05$. Financial literacy, green trust, and climate risk perception all had a positive and significant effect on environmental awareness. Environmental awareness had the strongest impact on sustainable investment intention ($\beta = 0.541$), indicating that it plays a crucial role in shaping sustainable investment behavior.

Table 4.5: Coefficient of Determination (R^2)

Endogenous Variable	R^2
Environmental Awareness	0.61
Sustainable Investment Intention	0.58

The R^2 value of 0.61 indicates that 61% of the variance in environmental awareness was explained by financial literacy, green trust, and climate risk perception. Similarly, 58% of the variance in sustainable investment intention was explained by environmental awareness, indicating a moderate-to-substantial explanatory power of the model.

Table 4.6: Effect Size (f^2)

Relationship	f^2	Effect Size
FL $\rightarrow$ EA	0.12	Small
GT $\rightarrow$ EA	0.10	Small
CRP $\rightarrow$ EA	0.14	Small
EA $\rightarrow$ SII	0.48	Large

Environmental awareness had a large effect on sustainable investment intention, while the effects of financial literacy, green trust, and climate risk perception on environmental awareness were small but meaningful.

Table 4.7: Predictive Relevance (Q^2)

Construct	Q^2
Environmental Awareness	0.39
Sustainable Investment Intention	0.42

Q^2 values were above zero, confirming that the model had strong predictive relevance for both endogenous constructs.

Table 4.8 Mediation Analysis (Bootstrapping)

Mediation Path	Indirect Effect	t-value	p-value	Result
FL → EA → SII	0.169	3.98	0.000	Supported
GT → EA → SII	0.148	3.75	0.000	Supported
CRP → EA → SII	0.161	3.89	0.000	Supported

The mediation analysis confirmed that environmental awareness significantly mediates the relationship between all independent variables and sustainable investment intention. This indicates that financial literacy, green trust, and climate risk perception influence sustainable investment intention primarily through enhancing environmental awareness.

5. Discussion

The findings of this study provide strong empirical support for the proposed conceptual framework explaining sustainable investment intention through financial literacy, green trust, climate risk perception, and environmental awareness (Bosone et al., 2022). The results confirm that all three independent variables significantly enhance environmental awareness, which in turn strongly influences sustainable investment intention among retail investors. This indicates that sustainable investment behavior is not driven directly by financial knowledge or perceptions alone, but rather through an internal cognitive transformation process represented by environmental awareness (Schumacher, 2022).

Financial literacy was found to have a significant positive effect on environmental awareness. This suggests that individuals with higher financial knowledge are better able to interpret the financial implications of environmental issues, such as climate-related risks and ESG integration in portfolios. This finding aligns with behavioral finance theory, which suggests that informed investors are more capable of processing complex sustainability-related information (Lusardi & Messy, 2023). However, the relatively small effect size indicates that financial literacy alone is insufficient to directly drive sustainable investment intention without the presence of environmental cognition. Green trust also demonstrated a significant positive relationship with environmental awareness. This finding highlights the importance of credibility and transparency in ESG markets. In an environment where greenwashing concerns are increasing, trust plays a critical role in shaping how investors engage with sustainability information (Che Hassan et al., 2023). When investors believe that ESG disclosures are reliable, they become more aware of environmental issues and are more likely to integrate sustainability into their investment decisions. Similarly, climate risk perception significantly influenced environmental awareness. Investors who perceive climate change as a serious financial and environmental risk tend to exhibit higher levels of awareness regarding sustainability issues. This supports the argument that perceived risk acts as

a psychological trigger that enhances attention toward environmental consequences and encourages sustainable financial behavior (Rauf et al., 2024).

The most important finding of the study is the strong impact of environmental awareness on sustainable investment intention. This suggests that awareness acts as a central mechanism translating knowledge, trust, and risk perception into behavioral intention. Investors who are more environmentally aware are more likely to prefer ESG investments, reflecting a shift from purely financial decision-making to value-based investing (Chauhan & Goyal, 2024). The mediation results further confirm that environmental awareness fully transmits the effects of financial literacy, green trust, and climate risk perception on sustainable investment intention. This indicates that these variables do not directly influence investment intention but operate through cognitive environmental understanding. This finding contributes to sustainable finance literature by highlighting the psychological pathway through which investment intentions are formed (Martinez-Meyers et al., 2024).

Overall, the results emphasize that sustainable investment behavior is not purely rational but is shaped by a combination of financial knowledge, trust, risk perception, and environmental cognition. The study provides important insights for policymakers and financial institutions aiming to promote ESG investing. Enhancing financial education, building trust in ESG products, and increasing awareness of climate risks can significantly strengthen sustainable investment behavior among retail investors.

6. Conclusion

This study examined the determinants of sustainable investment intention among retail investors by analyzing the roles of financial literacy, green trust, and climate risk perception, with environmental awareness as a mediating variable. The findings revealed that all three independent variables significantly enhance environmental awareness, which in turn strongly influences sustainable investment intention. The results confirmed that environmental awareness plays a central mediating role in explaining how cognitive, perceptual, and trust-based factors translate into sustainable investment behavior. Financial literacy, green trust, and climate risk perception do not directly shape investment intention but operate indirectly through environmental awareness. This highlights the importance of psychological and cognitive mechanisms in sustainable finance decision-making. The study contributes to existing literature by integrating behavioral finance and environmental psychology into a unified model of ESG investment intention. It also provides empirical evidence that sustainable investment decisions are largely awareness-driven rather than solely knowledge- or return-driven. From a practical perspective, the findings suggest that policymakers, educators, and financial institutions should focus on increasing environmental awareness alongside improving financial literacy. Strengthening trust in ESG disclosures and improving transparency can further enhance sustainable investment participation. In conclusion, sustainable investment intention is primarily shaped through environmental awareness, which acts as a critical psychological bridge between financial knowledge, trust, risk perception, and behavioral intention. Promoting sustainable finance therefore requires not only financial education but also stronger environmental communication and credibility in ESG markets.

7. Limitations

1. The study used a cross-sectional design, which limits the ability to establish causal relationships between variables.
2. Data were collected using convenience sampling, which may reduce the generalizability of the findings to the broader investor population.

3. The study relied on self-reported questionnaire data, which may be subject to response bias and social desirability bias.
4. ESG and environmental awareness constructs were measured using perceptual indicators, which may not fully capture actual investment behavior.

8. Future Recommendations

1. Future research should use longitudinal data to better examine causal relationships over time.
2. Studies should incorporate probability sampling techniques to improve generalizability across different investor groups and regions.
3. Future research may include actual investment behavior data instead of relying only on intention-based measures.
4. Researchers should explore additional mediators such as moral values, social norms, or digital financial literacy to expand the model.
5. Future studies could examine the impact of AI-based advisory systems and robo-advisors on sustainable investment decision-making.

References

1. Archer, M. (2022). The ethics of ESG: Sustainable finance and the emergence of the market as an ethical subject. *Focaal*, 2022(93), 18-31.
2. Bosone, C., Bogliardi, S. M., & Giudici, P. (2022). Are ESG female? The hidden benefits of female presence on sustainable finance. *Review of Economic Analysis*, 14(2), 253-274.
3. Chauhan, S., & Goyal, S. (2024). A meta-analysis of antecedents and consequences of green trust. *Journal of Consumer Marketing*, 41(4), 459-473.
4. Che Hassan, N., Abdul-Rahman, A., Mohd Amin, S. I., & Ab Hamid, S. N. (2023). Investment intention and decision making: A systematic literature review and future research agenda. *Sustainability*, 15(5), 3949.
5. D'Orazio, P. (2023). The politics of climate finance and policy initiatives to promote sustainable finance and address ESG issues. In *Sustainable finance and ESG: Risk, management, regulations, and implications for financial institutions* (pp. 145-171). Springer.
6. Ferreira, L., Oliveira, T., & Neves, C. (2023). Consumer's intention to use and recommend smart home technologies: The role of environmental awareness. *Energy*, 263, 125814.
7. Gaganis, C., Pasiouras, F., Tasiou, M., & Zopounidis, C. (2023). Sustainable finance and ESG. *Risk, Management, Regulations, and Implications for Financial Institutions*. Springer International Publishing. DOI: <https://doi.org/10.1007/978-3-031-24283>.
8. Ha, M. T., Ngan, V. T. K., & Nguyen, P. N. (2022). Greenwash and green brand equity: The mediating role of green brand image, green satisfaction and green trust and the moderating role of information and knowledge. *Business Ethics, the Environment & Responsibility*, 31(4), 904-922.
9. Hasan, Z., Zeerak, S., Ahmad, A., Ali, S. A., & Husain, T. (2025). Immersive Finance: Exploring The Role Of Virtual Reality In Mitigating Financial Risk And Enhancing Decision Confidence In Tourism. *Center of Management Science Research*, 3(3), 270-283.
10. Juthi, S., Kamrujjaman, M., Mistry, A., & Alauddin, M. (2024). Sustainable finance and data analytics: A systematic review of ESG data in investment decisions. *Academic Journal on Business Administration, Innovation & Sustainability*, 4(04), 70-88.

11. Li, Y., Luo, X. R., Li, K., & Xu, X. (2022). Exploring the spoiler effect in the digital age: Evidence from the movie industry. *Decision Support Systems*, 157, 113755. <https://doi.org/10.1016/j.dss.2022.113755>
12. Lusardi, A., & Messy, F.-A. (2023). The importance of financial literacy and its impact on financial wellbeing. *Journal of Financial Literacy and Wellbeing*, 1(1), 1-11.
13. Martinez-Meyers, S., Ferrero-Ferrero, I., & Muñoz-Torres, M. J. (2024). The European sustainable finance disclosure regulation (SFDR) and its influence on ESG performance and risk in the fund industry from a multi-regional perspective. *Journal of Financial reporting and Accounting*.
14. Petersen-Rockney, M. (2022). Social risk perceptions of climate change: a case study of farmers and agricultural advisors in northern California. *Global Environmental Change*, 75, 102557.
15. Poyser, A., & Daugaard, D. (2023). Indigenous sustainable finance as a research field: A systematic literature review on indigenising ESG, sustainability and indigenous community practices. *Accounting & Finance*, 63(1), 47-76.
16. Rauf, F., Wanqiu, W., Naveed, K., Qadri, S. U., & Ali, M. S. e. (2024). How ESG reporting is effected by sustainable finance and green innovation: moderating role of sales growth. *Environmental Science and Pollution Research*, 31(5), 7246-7263.
17. Romano, M., Cunningham, J. A., Cuttone, G., Munnia, A., & Nicotra, M. (2025). Intellectual capital-based research impact management: a strategic approach to increase regional intellectual capital. *Journal of intellectual capital*, 26(7), 24-42.
18. Sáenz, J., Alcalde-Heras, H., Aramburu, N., & Buenechea-Elberdin, M. (2024). Boosting innovativeness in organic farming: the role of external relational capital. *Journal of intellectual capital*, 25(1), 143-165.
19. Sampson, S. E. (2021). A strategic framework for task automation in professional services. *Journal of Service Research*, 24(1), 122-140.
20. Schumacher, K. (2022). Environmental, social, and governance (ESG) factors and green productivity: The impacts of greenwashing and competence greenwashing on sustainable finance and ESG investing. *APO Productivity Insights*, 2, 11.
21. Spring, M., Faulconbridge, J., & Sarwar, A. (2022). How information technology automates and augments processes: Insights from Artificial-Intelligence-based systems in professional service operations. *Journal of Operations Management*, 68(6-7), 592-618.
22. Starks, L. T. (2023). Presidential address: Sustainable finance and ESG issues—Value versus values. *The Journal of Finance*, 78(4), 1837-1872.
23. Van Valkengoed, A. M., Perlaviciute, G., & Steg, L. (2024). From believing in climate change to adapting to climate change: The role of risk perception and efficacy beliefs. *Risk Analysis*, 44(3), 553-565.
24. Xie, J., Abbass, K., & Li, D. (2024). Advancing eco-excellence: Integrating stakeholders' pressures, environmental awareness, and ethics for green innovation and performance. *Journal of environmental management*, 352, 120027.
25. Yunus, Y. A., & Nanda, S. (2024). Exploring sustainable finance: A qualitative inquiry into responsible investment and ESG risk evaluation. *Golden Ratio of Finance Management*, 4(1), 01-13.
26. Zaimovic, A., Torlakovic, A., Arnaut-Berilo, A., Zaimovic, T., Dedovic, L., & Nuhic Meskovic, M. (2023). Mapping financial literacy: A systematic literature review of determinants and recent trends. *Sustainability*, 15(12), 9358.