The Impact of ESG Factors and Behavioral Biases on Investment Decisions: Evidence from Private Sector Employees in North Western Province of Sri Lanka

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ABSTRACT

Environmental, Social, and Governance (ESG) factors and behavioral biases have become important considerations in understanding individual investment decision-making. This study examines the impact of ESG factors and behavioral biases on investment decisions among private sector employees in the North Western Province of Sri Lanka. Specifically, the study investigates the effects of environmental factors, social factors, governance factors, and behavioral biases on investment decisions. A quantitative research approach was adopted, and primary data were collected through a structured questionnaire from 200 private sector employees in the North Western Province, particularly in the Kurunegala and Puttalam districts. The collected data were analyzed using descriptive statistics, reliability and validity tests, Pearson correlation analysis, and multiple regression analysis with SPSS. The findings revealed that environmental factors and governance factors have

significant positive effects on investment decisions, with environmental factors emerging as the strongest predictor, followed by governance factors. However, social factors and behavioral biases did not demonstrate statistically significant individual effects in the multiple regression model. The final regression model explained 88.2% of the variance in investment decisions. The study provides context-specific evidence on the role of ESG factors and behavioral biases in investment decision-making among private sector employees in Sri Lanka and highlights the importance of environmental and governance considerations in investment decisions.

Keywords: *Behavioral Biases; Environmental Factors; Governance Factors; Investment Decisions; Social Factors*

1. INTRODUCTION

Investment decisions influence individual financial security and the allocation of capital across financial and non-financial assets. Traditionally, investors have relied on profitability, expected return, liquidity, and risk. Environmental exposure, social responsibility, and corporate governance can provide additional information about an organisation's sustainability and management quality. Environmental, Social, Governance considerations have consequently become an important topic in corporate finance and investment research (Friede et al., 2015; Gillan et al., 2021). Behavioral finance recognizes that investment decisions may be influenced by psychological tendencies rather than objective analysis alone. Overconfidence, herding, and loss aversion can affect how investors interpret information, assess risk, and make investment choices (Abideen et al., 2023; Islam et al., 2024).

These perspectives are relevant in developing financial markets, where ESG information, disclosure practices, investor experience, and access to financial advice may differ across populations. Sri Lankan studies have examined behavioural biases among household and Colombo Stock Exchange investors, while ESG-related studies have considered corporate reporting, performance, green investment, and investment-management practices. Subramaniam and Velnampy (2017) examined behavioural factors among household investors in the Northern Province, while Lasantha and Kumara (2021) investigated behavioural biases among active Colombo Stock Exchange investors. However, findings from these groups cannot automatically be generalised to private sector employees in other regions or to a model combining ESG factors and behavioural biases.

This study addresses this gap by examining environmental factors, social factors, governance factors, and behavioural biases together in relation to investment decisions among private sector employees in the North Western Province of Sri Lanka.

Despite the growing importance of ESG considerations and behavioral finance in investment decision-making, limited empirical evidence is available regarding how these factors jointly relate to investment decisions among private sector employees in the North Western Province of Sri Lanka. Existing studies have examined behavioral biases and ESG-related investment considerations in different investor groups and contexts; however, examining Environmental, Social, and Governance factors together with behavioral biases within a specific regional population provides an opportunity to extend the existing literature. Private sector employees may differ in their financial knowledge, investment experience, income characteristics, and exposure to financial information, which may influence their investment decisions. Therefore, examining these relationships among private sector employees in the North Western Province can provide context-specific evidence regarding the role of sustainability considerations and behavioral factors in investment decision-making within Sri Lanka.

2. AIMS/ OBJECTIVES

The main objective of this study was to investigate the impact of Environmental, Social, and Governance (ESG) factors and behavioral biases on investment decisions among private sector employees in the North Western Province Sri Lanka.

The specific objectives were:

- To investigate the impact of environmental factors on investment decisions among private sector employees in the North Western Province of Sri Lanka.
- To investigate the impact of social factors on investment decisions among private sector employees in the North Western Province of Sri Lanka.
- To investigate the impact of governance factors on investment decisions among private sector employees in the North Western Province of Sri Lanka.
- To investigate the impact of behavioral biases on investment decisions among private sector employees in the North Western Province of Sri Lanka.

3. THEORY

This study is based on five theoretical perspectives: Modern Portfolio Theory, Prospect Theory, the Theory of Planned Behavior, Behavioral Finance Theory, and Stakeholder Theory. These theories provide a foundation for examining the impact of Environmental, Social, and Governance (ESG) factors and behavioral biases on investment decisions among private sector employees in the North Western Province of Sri Lanka. Modern Portfolio Theory, developed by Markowitz (1952), explains how investors evaluate investment opportunities by considering risk, expected return, and portfolio diversification. In this study, the theory provides a financial perspective for understanding investment decisions, while ESG information offers additional insights into the sustainability and potential risks of investment opportunities. Prospect Theory, introduced by Kahneman and Tversky (1979), explains how individuals evaluate potential gains and losses under uncertainty. This theory is particularly relevant to loss aversion, as investors may give greater importance to avoiding losses than achieving equivalent gains. Therefore, Prospect Theory helps explain how psychological responses to risk may influence investment decisions. The Theory of Planned Behavior, developed by Ajzen (1991), emphasizes the influence of attitudes, subjective norms, and perceived behavioral control on behavioral intentions. In the context of this study, investors' attitudes toward ESG practices and the influence of peers and social environments may affect their investment preferences and decisions. Behavioral Finance Theory explains how psychological and cognitive factors influence financial decision-making. It provides the theoretical basis for examining overconfidence bias, herding behavior, and loss aversion. These biases may affect how investors interpret information, assess risks, and select investment opportunities, potentially causing them to deviate from rational decision-making. Stakeholder Theory, proposed by Freeman (1984), emphasizes the importance of considering the interests of stakeholders, including employees, customers, investors, communities, and society. This theory supports the ESG dimension of the study by explaining why investors may consider companies' environmental responsibility, social practices, and corporate governance when making investment decisions.

The integration of these five theories provides a comprehensive framework for understanding investment decisions by combining financial, psychological, behavioral, and sustainability perspectives. Modern Portfolio Theory explains the role of risk and return, while Prospect Theory and Behavioral Finance Theory explain how psychological biases, particularly overconfidence, herding behavior, and loss aversion, may influence investors’ choices. The Theory of Planned Behavior highlights the importance of attitudes and social

influences, while Stakeholder Theory supports the consideration of environmental responsibility, social practices, and corporate governance. Based on this integration, the present study examines environmental, social, and governance factors and behavioral biases as independent variables influencing investment decisions among private sector employees in the North Western Province of Sri Lanka. This integrated approach enables the study to assess the individual and combined relationships of these factors with investment decisions.

Research Hypotheses

Based on the theoretical framework and the objectives of the study, the following hypotheses were developed:

H1: Environmental factors have a significant positive relationship with Investment Decisions among private sector employees in the North Western Province of Sri Lanka.

H2: Social factors have a significant positive relationship with Investment Decisions among private sector employees in the North Western Province of Sri Lanka.

H3: Governance factors have a significant positive relationship with Investment Decisions among private sector employees in the North Western Province of Sri Lanka.

H4: Behavioral Biases have a significant positive relationship with Investment Decisions among private sector employees in the North Western Province of Sri Lanka.

4. METHODS

The study adopted a quantitative research approach with a deductive research design to examine the impact of Environmental, Social, and Governance (ESG) factors and behavioral biases on investment decisions. The target population consisted of private sector employees in the North Western Province of Sri Lanka, particularly in the Kurunegala and Puttalam districts, who were engaged in investment activities. Since a comprehensive sampling frame was unavailable, convenience sampling was employed. A sample of 200 respondents was selected using convenience sampling because a complete sampling frame of the target population was not available. Respondents were selected based on their accessibility and willingness to participate in the study. Data were collected from private sector employees working in organizations

across the Kurunegala and Puttalam districts. The selection of these respondents was intended to obtain information from individuals with exposure to investment decision-making. Convenience sampling enabled the researcher to collect primary data from the target population within the available time and resources; however, the non-probability sampling approach limits the generalizability of the findings beyond the respondents included in the study.

Primary data were collected using a structured questionnaire consisting of close-ended questions measured on a five-point Likert scale. The questionnaire measured the independent variables, namely environmental factors, social factors, governance factors, and behavioral biases, and the dependent variable, investment decisions. Behavioral biases were examined through overconfidence bias, herding behavior, and loss aversion.

The reliability and validity of the research instrument were assessed using Cronbach's alpha and exploratory factor analysis. The Kaiser-Meyer-Olkin (KMO) measure and Bartlett's test of sphericity were used to evaluate the suitability of the data for factor analysis. Data analysis was conducted using IBM SPSS Statistics. Descriptive statistics were used to summarize the respondent characteristics and study variables, while Pearson correlation analysis examined the relationships between the independent and dependent variables. Multiple regression analysis was employed to assess the individual impact of the four independent variables on investment decisions. The hypotheses were tested at the 5% significance level.

The multiple regression model was specified as follows:

$$\mathbf{ID = \beta_0 + \beta_1 ENV + \beta_2 SOC + \beta_3 GOV + \beta_4 BB + \varepsilon}$$

Where Investment Decisions (ID) represent the dependent variable; Environmental Factors (ENV), Social Factors (SOC), Governance Factors (GOV), and Behavioral Biases (BB) represent the independent variables; β_0 represents the constant; β_1 to β_4 represent the regression coefficients; and ε represents the error term.

5. RESULTS

The final analysis was based on 200 respondents. Pearson correlation analysis revealed significant positive relationships between all four independent variables and investment decisions. Environmental factors demonstrated the strongest positive correlation with investment decisions ($r = .922$, $p < .001$), followed by governance factors ($r = .900$, $p < .001$), social factors ($r = .877$, p

< .001), and behavioral biases (r = .856, p < .001). These findings indicate that all four variables were positively associated with investment decisions among private sector employees in the North Western Province of Sri Lanka.

5.1 Multicollinearity Assessment

The correlation analysis revealed relatively high positive correlations among the independent variables. Environmental factors were highly correlated with Social factors (r = .885), Governance factors (r = .891), and Behavioral Biases (r = .881). Similarly, Social factors demonstrated a strong correlation with Governance factors (r = .898) and Behavioral Biases (r = .846), while Governance factors were also strongly correlated with Behavioral Biases (r = .884). These findings indicate considerable shared variance among the predictors and raise concerns regarding potential multicollinearity in the multiple regression model.

Although the correlation matrix provides an initial indication of overlap among the independent variables, correlation coefficients alone are insufficient to establish the presence or severity of multicollinearity. Therefore, tolerance values and Variance Inflation Factor (VIF) statistics should be examined to further assess multicollinearity and determine the extent to which the regression coefficients can be interpreted independently. These results should be considered when interpreting the individual contributions of Environmental, Social, Governance, and Behavioral Biases to investment decisions.

Table 01. Multicollinearity Statistics

Predictor	Tolerance	VIF
Environmental Factors	.145	6.915
Social Factors	.158	6.343
Governance Factors	.129	7.729
Behavioral Biases	.175	5.717

Although the correlation matrix provides an initial indication of overlap among the independent variables, correlation coefficients alone are insufficient to establish the presence or severity of multicollinearity. Therefore, tolerance values and Variance Inflation Factor (VIF) statistics were examined to further assess multicollinearity. The tolerance values ranged from .129 to .175, while the VIF values ranged from 5.717 to 7.729. These results indicate considerable multicollinearity among the independent variables, which may affect the stability and interpretation of individual regression

coefficients. Accordingly, the individual contributions of the predictors should be interpreted cautiously.

Multiple regression analysis was conducted to examine the individual impact of environmental factors, social factors, governance factors, and behavioral biases on investment decisions. The regression model demonstrated a strong relationship between the independent variables and investment decisions (R = .939). The coefficient of determination (R^2 = .882) indicated that the four independent variables collectively explained 88.2% of the variation in investment decisions. The adjusted R^2 was .880, while the overall regression model was statistically significant (F = 365.076, p < .001).

Table 02. Multiple Regression Results

Variable	B	SE	β	t	p-value	95% CI	Hypothesis Decision
Environmental Factors	.492	.061	.522	8.079	.001	[.372, .612]	Supported
Social Factors	.109	.057	.118	1.909	.058	[-.004, .222]	Not supported
Governance Factors	.281	.062	.309	4.519	.001	[.159, .404]	Supported
Behavioral Biases	.021	.055	.023	.383	.702	[-.088, .130]	Not supported

Source: Survey Data (2026).

The regression results indicate that environmental factors had a positive and statistically significant impact on investment decisions (B = .492, β = .522, p = .001). Environmental factors were the strongest predictor among the four independent variables. Governance factors also demonstrated a positive and statistically significant impact (B = .281, β = .309, p = .001), making them the second-strongest predictor.

In contrast, social factors did not demonstrate a statistically significant individual impact on investment decisions at the 5% significance level (B = .109, β = .118, p = .058). Similarly, behavioral biases did not have a statistically significant individual impact (B = .021, β = .023, p = .702). Therefore, the hypotheses relating to environmental and governance factors were supported, whereas the hypotheses relating to social factors and behavioral biases were not supported.

Although social factors and behavioral biases showed significant positive correlations with investment decisions, they were not statistically significant in the multiple regression model when the other independent variables were

considered simultaneously. This indicates that their individual contributions were not statistically significant after accounting for the other variables in the model.

5.2 Reliability and Validity Analysis

The reliability of the measurement instruments was assessed using Cronbach's alpha. The results indicated high internal consistency across all five constructs. Environmental Factors recorded a Cronbach's alpha of .947, Social Factors .935, Governance Factors .947, Behavioral Biases .959, and Investment Decisions .956. All values exceeded the commonly accepted threshold of .70, indicating satisfactory internal consistency of the measurement scales.

The suitability of the data for factor analysis was assessed using the Kaiser-Meyer-Olkin (KMO) measure and Bartlett's Test of Sphericity. The KMO value was .908, indicating adequate sampling suitability. Bartlett's Test of Sphericity was statistically significant ($\chi^2 = 1443.527$, df = 10, p \(\lt\) .001), indicating that the correlation matrix was suitable for factor analysis. The communalities obtained through principal component analysis ranged from .879 to .925, while the component loadings ranged from .938 to .962. These results provide evidence of strong shared variance among the examined constructs and support the suitability of the data for further analysis.

6. DISCUSSION

The findings indicate that environmental and governance factors are significant predictors of investment decisions among private sector employees in the North Western Province of Sri Lanka. Environmental factors emerged as the strongest predictor, followed by governance factors. This suggests that respondents place considerable importance on environmental responsibility, energy efficiency, waste management, transparency, and board independence when evaluating investment opportunities. These findings are consistent with Li et al. (2024), who found that retail investors respond to ESG-related information particularly when they consider it financially material to company performance. Similarly, Kräussl et al. (2024) highlighted the importance of investors' expectations, beliefs, and perceptions in understanding ESG investment decisions. However, the findings should be interpreted in the context of the present sample because the previous studies examined different investor populations and research settings.

The significant effect of environmental factors suggests that environmental practices may be relevant to investors' assessments of a company's long-term sustainability and financial prospects. Nevertheless, the present study

measured employees' reported investment decisions rather than actual portfolio transactions. Therefore, the results indicate an association within the study model and should not be interpreted as proof that environmental responsibility directly causes investors to select particular investments. The significance of governance factors also highlights the relevance of transparency and sound corporate oversight. These findings are consistent with the broader ESG literature, which emphasizes the importance of sustainability information and corporate disclosure in investment-related evaluations (Kräussl et al., 2024). Together, the results suggest that environmental and governance considerations deserve attention when examining investment decisions among private sector employees in this Sri Lankan context.

In contrast, social factors showed a strong positive correlation with investment decisions but did not demonstrate a statistically significant unique effect in the multiple regression analysis ($p = .058$). This does not mean that social factors are unimportant to investors. Rather, their independent contribution was not statistically established after environmental factors, governance factors, and behavioral biases were considered simultaneously. One possible explanation is that respondents evaluate social responsibility alongside other aspects of corporate sustainability, creating shared explanatory information among the predictors. Research on ESG investing also indicates that investor responses to ESG information can vary according to the perceived relevance of that information to investment outcomes (Li et al., 2024; Kräussl et al., 2024). Consequently, social factors may remain relevant to investment preferences even though their unique effect was not statistically significant in the present model.

Behavioral biases also demonstrated a strong positive correlation with investment decisions but were not statistically significant in the multiple regression analysis ($p = .702$). This finding contrasts with Abideen et al. (2023), who examined behavioral biases in investment decision-making in the Pakistani equity market. It also differs from Islam et al. (2024), who reported that behavioral biases were related to financial risk propensity and that risk propensity significantly influenced investment decisions. These studies suggest that behavioral influences may operate through different mechanisms and may depend on the variables and analytical models used. In the present study, the non-significant regression result indicates that behavioral biases did not explain a statistically significant additional proportion of investment decisions after the other predictors were controlled for. However, this result should not be interpreted as evidence that behavioral biases have no relationship with investment decisions. Differences in investor populations,

measurements, and model specifications may contribute to variations between studies.

6.1 Interpretation of Regression Model

The multiple regression model demonstrated strong explanatory power, with an R^2 value of .882, indicating that the four independent variables collectively explained 88.2% of the variation in Investment Decisions within the sample. Although this represents a high level of explanatory power, the result should be interpreted cautiously because the study employed self-reported questionnaire data and the independent variables demonstrated strong intercorrelations. The high explanatory power may partly reflect shared variance among the predictors and similarities in respondents' perceptions across the constructs. Therefore, the R^2 value should not be interpreted as evidence of causal relationships. Furthermore, the interpretation of individual regression coefficients requires consideration of the potential multicollinearity identified among the independent variables.

Overall, the findings provide context-specific evidence that environmental and governance factors were the strongest statistically significant predictors of investment decisions among the respondents. Although social factors and behavioral biases were positively correlated with investment decisions, their individual effects were not statistically significant in the regression model. By examining ESG dimensions and behavioral biases together, the study contributes to the limited context-specific evidence on investment decision-making among private sector employees in North Western Province, Sri Lanka. Future research could examine whether financial literacy, risk propensity, and the separate dimensions of behavioral bias help explain these relationships in different investor groups and regions.

7. IMPLICATIONS AND LIMITATIONS

The findings of this study provide practical implications for individual investors, financial institutions, companies, and policymakers in Sri Lanka. The significant influence of Environmental Factors suggests that investors may benefit from greater awareness of environmental performance when evaluating investment opportunities. Financial institutions and investment advisers could provide educational materials that explain environmental disclosures, sustainability risks, resource efficiency, and the long-term implications of environmental practices.

The significant relationship identified for Governance Factors highlights the importance of corporate transparency, accountability, ethical conduct, and

effective governance practices. Companies may strengthen investor confidence by improving the quality of financial and non-financial disclosures, promoting accountability, and maintaining transparent governance structures. Policymakers and regulatory institutions could further support responsible investment by promoting consistent ESG reporting practices and improving investor access to reliable corporate information.

Although Social Factors and Behavioral Biases were not statistically significant unique predictors in the multiple regression model, their strong positive correlations with Investment Decisions indicate that they remain relevant considerations within the study context. Therefore, investor education programs could incorporate social responsibility considerations and behavioral awareness to encourage investors to evaluate investment opportunities more comprehensively and avoid relying solely on a single source of information or market sentiment.

This study has several limitations that should be considered when interpreting its findings. First, the study employed convenience sampling and focused on private sector employees in the North Western Province of Sri Lanka. Therefore, the findings may not be generalizable to all investors in Sri Lanka. Second, the cross-sectional research design examined relationships at a single point in time and does not establish causal relationships between the independent variables and Investment Decisions. Third, the study relied on self-reported questionnaire responses, which may be subject to response bias and common method bias. Fourth, Behavioral Biases were examined as a combined construct incorporating overconfidence, herding behavior, and loss aversion. Consequently, the individual contribution of each behavioral bias was not separately established. Future studies could extend the research to different provinces, employ probability-based sampling methods where feasible, conduct longitudinal investigations, and examine individual behavioral biases separately. Future research could also incorporate additional factors such as financial literacy, investment experience, risk tolerance, and access to financial advice to provide a more comprehensive understanding of investment decision-making.

REFERENCES

Abideen, Z.U.I., Ahmed, Z., Qiu, H. and Zhao, Y. (2023) ‘Do behavioral biases affect investors’ investment decision making? Evidence from the Pakistani equity market’, *Risks*, 11(6), Article 109.

Aich, S., Thakur, A., Nanda, D., Tripathy, S. and Kim, H.-C. (2021) 'Factors affecting ESG towards impact on investment: A structural approach', *Sustainability*, 13(19), Article 10868.

Ajzen, I. (1991) 'The theory of planned behavior', *Organizational Behavior and Human Decision Processes*, 50(2), pp. 179–211.

Amgain, P.N. (2024) 'Examining the behavioral biases influencing on ESG investing: A systematic review using PRISMA', *Journal of Interdisciplinary Studies*, 13(1), pp. 182–211.

Barber, B.M. and Odean, T. (2001) 'Boys will be boys: Gender, overconfidence, and common stock investment', *The Quarterly Journal of Economics*, 116(1), pp. 261–292.

Berg, F., Kölbel, J.F. and Rigobon, R. (2022) 'Aggregate confusion: The divergence of ESG ratings', *Review of Finance*, 26(6), pp. 1315–1344.

Broadstock, D.C., Chan, K., Cheng, L.T.W. and Wang, X. (2021) 'The role of ESG performance during times of financial crisis: Evidence from COVID-19 in China', *Finance Research Letters*, 38, Article 101716.

Fatemi, A., Glaum, M. and Kaiser, S. (2018) 'ESG performance and firm value: The moderating role of disclosure', *Global Finance Journal*, 38, pp. 45–64.

Freeman, R.E. (1984) *Strategic management: A stakeholder approach*. Pitman.

Friede, G., Busch, T. and Bassen, A. (2015) 'ESG and financial performance: Aggregated evidence from more than 2000 empirical studies', *Journal of Sustainable Finance & Investment*, 5(4), pp. 210–233.

Gillan, S.L., Koch, A. and Starks, L.T. (2021) 'Firms and social responsibility: A review of ESG and CSR research in corporate finance', *Journal of Corporate Finance*, 66, Article 101889.

Islam, K.U., Bhat, S.A., Lone, U.M., Darzi, M.A. and Malik, I.A. (2024) 'Financial risk propensity and investment decisions: An empirical analysis using behavioural biases', *IIMB Management Review*, 36(3), pp. 213–229.

Kahneman, D. and Tversky, A. (1979) 'Prospect theory: An analysis of decision under risk', *Econometrica*, 47(2), pp. 263–291.

Khan, M., Serafeim, G. and Yoon, A. (2016) 'Corporate sustainability: First evidence on materiality', *The Accounting Review*, 91(6), pp. 1697–1724.

Kräussl, R., Oladiran, T. and Stefanova, D. (2024) 'A review on ESG investing: Investors' expectations, beliefs and perceptions', *Journal of Economic Surveys*, 38(2), pp. 476–502.

Lasantha, S.A.R. and Kumara, W.M.S.W. (2021) 'Behavioral biases and the rationality in stock market investments: Evidence from Sri Lanka', *Journal of Business and Technology*, 5(Special Issue). Available at: https://doi.org/10.4038/jbt.v5i0.49.

Li, Q., Watts, E.M. and Zhu, C. (2024) 'Retail investors and ESG news', *Journal of Accounting and Economics*, 78(2–3), Article 101719.

Markowitz, H. (1952) 'Portfolio selection', *The Journal of Finance*, 7(1), pp. 77–91.

Riedl, A. and Smeets, P. (2017) 'Why do investors hold socially responsible mutual funds?', *The Journal of Finance*, 72(6), pp. 2505–2550.

Subramaniam, A. and Velnampy, T. (2017) 'The role of behavioural factors in the investment decisions of household investors', *International Journal of Accounting and Financial Reporting*, 7(1). Available at: https://doi.org/10.5296/ijafr.v7i1.11421.

Sultana, S., Zulkifli, N. and Zainal, D. (2018) 'Environmental, social and governance (ESG) and investment decision in Bangladesh', *Sustainability*, 10(6), Article 1831.