Effect of Sustainability Factors on Investor's Decision in the Nigerian Exchange Group (Ngx)

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Abstract: This study examines the effect of sustainability factors on investment decision-making in the Nigerian Exchange Group (NGX), with a focus on environmental, social, and governance (ESG) factors and the mediating role of investment horizon. Using a survey-based approach, data were collected from 383 investors and analyzed through Structural Equation Modelling (SEM) to test four hypotheses. The results revealed that environmental factors ($\beta = 0.171$, $p < 0.001$), social factors ($\beta = 0.433$, $p < 0.001$), and governance factors ($\beta = 0.395$, $p < 0.001$) significantly influence investment decision-making. Furthermore, investment horizon was found to mediate the relationship between sustainability factors and investment decisions ($\beta = 0.957$, $p < 0.001$). Model fit indices confirmed the robustness of the findings, with values such as CFI (0.957), RMSEA (0.054), and GFI (0.920) indicating an acceptable fit. These results highlight the growing importance of ESG considerations in the investment landscape, as investors increasingly prioritize sustainability in their decision-making processes. The findings have critical policy implications. Policymakers should strengthen regulatory frameworks to promote ESG disclosure and encourage the adoption of sustainable practices among listed companies. Financial institutions should develop innovative products tailored to the preferences of sustainability-conscious investors.

Keywords: Investment Decision-Making, Sustainability Factors, Investment Horizon, Nigerian Exchange Group (NGX), Structural Equation Modelling.

1. INTRODUCTION

Sustainability factors, encompassing environmental, social, and governance (ESG) considerations, have become increasingly significant in global investment decisions. ESG elements reflect a company's commitment to environmental stewardship, social responsibility, and governance excellence, influencing investor behavior and long-term financial returns (Chen & Xie, 2022). Environmental factors, such as carbon emissions and resource conservation, signal a company's readiness to address environmental challenges, while social and governance factors emphasize labor practices, community engagement, and corporate accountability (Calero & Rodríguez-López, 2020; Atif *et al.*, 2022). As investors prioritize ESG integration into investment strategies, sustainable investing has emerged as a means to align profitability with ethical and environmental priorities (Pirani & Patil, 2024).

Capital markets, including the Nigerian Exchange Group (NGX), play a crucial role in economic growth by channelling savings into productive investments and facilitating financial risk distribution. However, while traditional theories assume investor rationality, modern finance highlights behavioural biases and market inefficiencies, prompting a closer examination of sustainability factors and their impact on investment decisions (Nguyen *et al.*, 2023). Existing studies

reveal mixed results regarding ESG influence, with some highlighting enhanced returns and others indicating trade-offs between profitability and environmental commitments (Wang *et al.*, 2022; Erdogan *et al.*, 2023).

Despite growing global interest, there is limited research on ESG factors within the NGX, particularly regarding the buy-and-hold investment strategy. This study addresses this gap by investigating how ESG factors influence investment decision-making in the NGX, focusing on environmental, social, and governance dimensions and the mediating role of investment horizon.

This study aims to examine the effects of sustainability factors on investment decision-making in the NGX, focusing on environmental, social, and governance dimensions. It also investigates the mediating role of investment horizons in this relationship. The specific objectives are to analyze the impact of environmental factors, assess the influence of social factors, evaluate the role of governance factors, and determine whether investment horizons mediate the relationship between sustainability factors and investor decisions. Furthermore, the following hypotheses guide this study: H01: Environmental factors do not affect investors' decision-making in the NGX. H02: Social factors do not influence investors' decision-making in the NGX. H03: Governance factors have no impact on investors' decision-making in the NGX. H04: Investment horizon does not mediate the relationship between sustainability factors and investment decisions in the NGX. This research focuses on active investors associated with nine brokerage firms trading on the NGX. It

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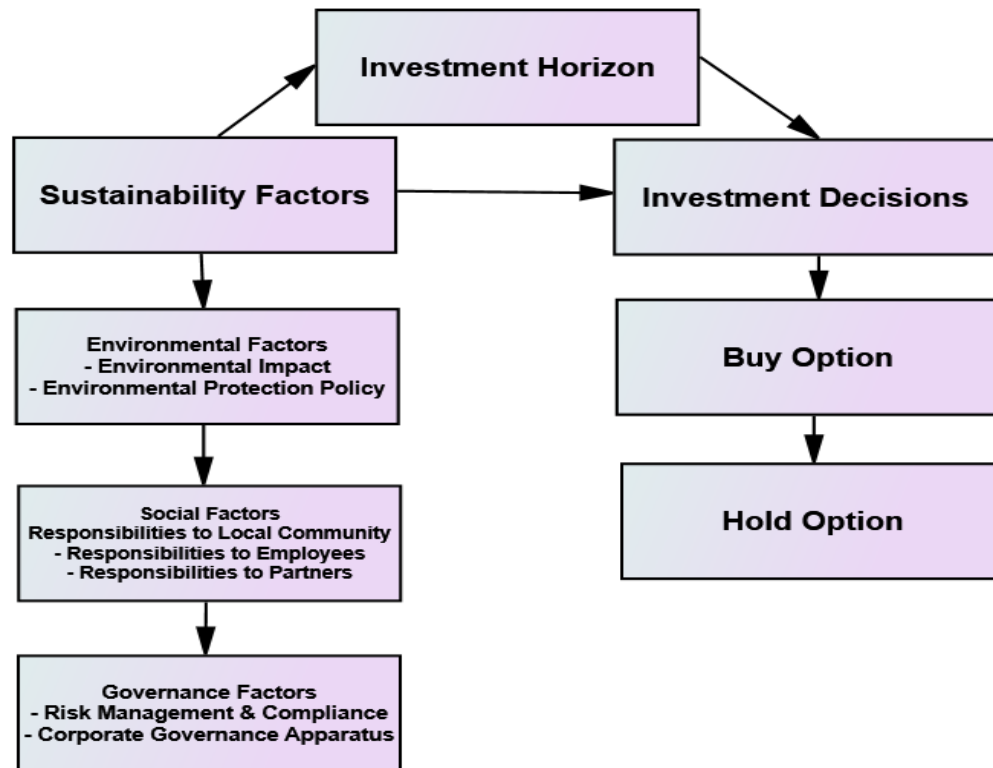E-mail: Gabrielegwurube@gmail.com

Fig. (1). Conceptual Framework of the Study.

Source: Author's Derivation (2025).

contributes to the understanding of ESG dynamics in the Nigerian capital market, offering insights into sustainable investment practices and guiding policymakers and investors in fostering responsible and efficient market operations.

2. LITERATURE REVIEW

2.1. Conceptual Framework

To achieve the research objectives, this study explores sustainability factors, investment decision-making, their proxies, and interrelationships, culminating in the conceptual model presented below.

The framework is enhanced by injecting the idea of investment horizon in ascertaining the investment decisions of Nigerian investors. A visual framework illustrating the anticipated relationship between the variables was created based on a comprehensive review of existing literature. This framework seeks to explore the connection between sustainability factors and investment decisions within the Nigerian Exchange Group, incorporating investment horizon as a mediating variable. Mediation occurs when the investment horizon clarifies how sustainability factors influence investment decisions, particularly in the context of buying and holding options. In simpler terms, mediation can be described as a process where sustainability factors (independent variables) impact the investment horizon (mediating variable), which subsequently affects investment decisions (dependent variable). This layered relationship helps to better understand the dynamics between ESG factors, investors' time preferences,

and their ultimate decision-making behaviours. As a result, Fig. (**1**) above shows the conceptual framework of the study.

2.2. Theoretical Review

Researchers have used theories including decision theory, Prospect theory, capital asset pricing model (CAPM), etc., to advance their studies on the effects of sustainability factors on investment decision-making in the Nigerian exchange group. Many researchers have attempted to combine different hypotheses to support their findings better. For this research, the following theories will be reviewed.

2.2.1. Decision Theory

Decision theory is the logical analysis of decision-making in a structure or system with ambiguous/uncertain choice environments and unidentified decision variables (Luce & Raiffa, 1957). To analyse how decisions are made, decision theory uses methods from mathematics, philosophy, statistics, and psychology (Savage, 1954). This theory also addresses how decisions are logically made in the face of probabilities and unknowable outcomes (Von Neumann & Morgenstern, 1944).

2.2.2. Prospect Theory

According to the prospect hypothesis, investors evaluate gains and losses differently, prioritizing perceived gains over perceived losses (Kahneman & Tversky, 1979). An investor will pick the one with the highest prospective gains when given two equal options. The prospect theory tries to justify

selecting a course of action that does not enhance the expected value. The theory explains how decisions are evaluated or assessed where the alternatives available do not differ so much from the expected value (Tversky & Kahneman, 1992).

2.2.3. Capital Asset Pricing Model (CAPM)

The Capital Asset Pricing Model (CAPM) is a foundational financial theory used to determine the expected return of an asset based on its risk relative to the overall market. It asserts that the expected return on a security equals the risk-free rate plus a risk premium, which is the product of the security's beta (a measure of its systematic risk) and the market risk premium (the difference between the expected return on the market portfolio and the risk-free rate). This model assumes that investors hold diversified portfolios, reducing unsystematic risk to near-zero, and only systematic risk, represented by beta, is relevant in pricing an asset. Despite its widespread use, CAPM has faced criticism for its assumptions, including the notion of a single-period investment horizon, relying on historical data to estimate beta, and excluding factors like liquidity and behavioral biases. Empirical studies suggest deviations from CAPM predictions, particularly in emerging markets, where other factors like size and value premiums may play significant roles in asset pricing (Fama & French, 1992). Nonetheless, CAPM remains a critical tool for understanding the relationship between risk and return, helping investors and firms estimate the cost of capital and assess investment opportunities.

The formula for calculating the expected return of an asset, given its risk, is as follows:

$$ER_i = R_f + \beta_i (ER_m - R_f) \qquad (2.1)$$

Where:

ER_i = expected return on investment

R_f = risk-free rate

β_i = beta of the investment

$(ER_m - R_f)$ = market risk premium

2.2.4. Theoretical Framework

The Capital Asset Pricing Model (CAPM), developed by Sharpe (1964) and Lintner (1965), serves as a foundational theory for understanding investor behaviour in the context of risk and return. CAPM posits that the expected return on an asset is a function of the risk-free rate, the asset's systematic risk (beta), and the market risk premium. In applying this model to the effect of sustainability factors on investor decisions in the Nigerian Exchange Group (NGX), it provides a robust framework for examining how non-financial metrics such as environmental, social, and governance (ESG) considerations are integrated into risk assessments and portfolio diversification strategies. Sustainability factors, which increasingly influence perceptions of long-term profitability and stability, can alter the risk-return profiles of firms, thereby affecting investors' decisions in an emerging market like Nigeria's.

CAPM is particularly appropriate for this study because it bridges traditional financial analysis with contemporary concerns about sustainability. By incorporating ESG factors into the determination of beta, the model allows for an exploration of how these non-financial risks impact investors' required returns. For example, firms with poor sustainability ratings may exhibit higher perceived risks, leading to lower expected returns or even exclusion from certain portfolios. Conversely, firms with strong ESG performance might attract lower-risk premiums due to perceived stability and alignment with socially responsible investment mandates (Kumar *et al.*, 2021). This alignment makes CAPM a relevant tool to analyze the trade-offs investors consider between financial performance and sustainability values in the NGX.

Using CAPM also aligns with global trends where sustainability considerations are increasingly priced into asset valuations. In the Nigerian context, where sustainability reporting and ESG adoption are gaining momentum, this theory enables a quantifiable assessment of these dynamics. Moreover, CAPM's simplicity and widespread applicability offer a clear theoretical lens through which sustainability's relatively nascent yet rapidly evolving impact on investment decisions can be evaluated, particularly in a market characterised by high volatility and limited ESG data availability (Ezeoha, 2022). By adapting CAPM to integrate sustainability factors, this framework provides both theoretical rigour and practical relevance to the study.

2.3. Empirical Review

Environmental, Social, and Governance (ESG) criteria are a framework for assessing an organisation's sustainability and ethical performance. A critical aspect of investment decision-making is selecting stocks from a wide array of options in the financial markets. While traditional economic theory suggests that individuals make rational decisions based on logic, experience, and available information, behavioural finance highlights the influence of psychological biases, emotional tendencies, and ingrained thought patterns on investors' choices (Hwang, 2023).

The importance of sustainability in investment decisions has grown significantly, especially after the COVID-19 pandemic. Evidence from Nordic firms shows that strong environmental and social practices can enhance revenues, profits, and overall valuations (Yahya, 2023). Incorporating ESG considerations into investment analysis aligns with corporate environmental responsibilities and fosters sustainable financial returns. Companies adopting eco-friendly initiatives demonstrate their commitment to sustainability while potentially improving their financial performance (Basuony et al., 2023). Investors increasingly incorporate Environmental, Social, and Governance (ESG) factors into their decision-making processes, driven by growing demand for sustainable investments, stricter regulatory frameworks, and heightened awareness of social responsibility (Shakil et al., 2021). Studies show that various approaches, including thematic investing, exclusionary screening, and ESG ratings, are used to integrate ESG considerations into portfolio decisions (Sarajoti et al., 2022). ESG ratings, provided by organizations like MSCI and Sustainalytics, help identify companies excelling in ESG practices and have been linked to higher returns for investors who prioritize them (Alda, 2021).

On the other hand, exclusionary screening, which avoids investments in companies engaged in socially or environmentally harmful practices, often results in underperformance compared to other strategies (Capelli *et al*., 2021). Thematic investing, focusing on areas like clean energy or sustainable agriculture, offers significant potential for high returns by capitalizing on emerging trends (Taliento *et al.*, 2019).

According to Pirani & Patil (2024) the growing emphasis on sustainability underscores the importance of understanding the factors that drive ESG-focused investment decisions. As investors increasingly consider the ethical, social, and environmental implications of their portfolios, research into these motivators becomes essential for promoting sustainable investing. By identifying the key drivers behind ESG investment decisions, stakeholders investors, corporations, and governments can better design strategies that encourage responsible investing and contribute to a more sustainable and equitable economy.

Several studies conducted across various countries, including the United States, Bangladesh, Pakistan, Korea, and France, have highlighted the connection between ESG factors, particularly environmental considerations, and investment decisions. Research works such as Rounok *et al*., 2023; Mehwish & Kakakhel, 2022; Park & Jang, 2021; Dung et al., 2024; Zaman and Ellili, 2022; Gutsche *et al*., 2023; Al-Hiyari *et al.*, 2023; Bai *et al.*, 2022; Naeem *et al*., 2022; Khalil *et al*., 2022; Zhou et al., 2023; Tan and Zhu, 2022; Li, Lian, and Xu; 2023; Wang *et al*., 2023; Aich, et al., 2021; Erdogan et al., 2023, Yu *et al*., 2024; Haonan, Z, 2024; Eliza, 2024; Fisnik & Saimir, 2024; Muhammad and Ries, 2024; Waleed and Jian., 2024; Sahib, 2023; Abhinandan, et al., 2023; Weinbrenner, 2023; Padmakshi, et al., 2023; Liu, et al., 2024; Nguyen, et al., 2023; Ellili, 2022; Asri and Rini, 2022 and others emphasize the influence of factors like carbon emissions, waste management, and renewable energy adoption on investor preferences. These findings illustrate the growing importance of sustainability in shaping investment behaviours globally. In Vietnam, 62% of investors prioritize evaluating a company's environmental impact as a key indicator of social responsibility, with administrative transparency being a critical aspect of ESG information (PwC, 2022). Moreover, adverse ESG events significantly influence corporate value, providing insights for sustainable investment strategies (Helfaya *et al.*, 2023; Walton, 2022). The ESG framework evaluates companies' sustainability and ethical impact across environmental, social, and governance dimensions, guiding stakeholders in assessing risks and opportunities. Social factors involve a company's engagement with stakeholders, such as employees and customers, emphasizing practices like fair treatment and social responsibility. Governance factors address management structures, transparency, adherence to regulations, and ethical practices, including intellectual property protection (Dung et al., 2024).

3. METHODOLOGY

The study adopted a positivist research philosophy, which assumes an objective and external reality that can be understood through empirical evidence. This philosophy underpinned the use of quantitative methodologies to collect, analyze, and interpret data, facilitating the establishment of cause-and-effect relationships. Deductive reasoning guided the study, beginning with hypotheses based on established theories and testing them with secondary data from brokerage firms, as explained by Mkansi (2018).

The research employed a cross-sectional design, suitable for exploring relationships among variables at a specific point in time. This design effectively captures the complexities of such relationships, as highlighted by Spector (2019). The survey method was chosen for its efficiency in collecting substantial data without influencing participants, aligning with recommendations by Mohajan (2020). Structured questionnaires served as the primary data collection instrument, focusing on sustainability factors and their effects on investor decision-making in the Nigerian Exchange Group (NGX).

The population included active investors from 190 brokerage firms listed on the NGX in 2024, with a target focus on nine firms to ensure representativeness. Stockbrokers, acting as intermediaries, provided insights into investor behavior. Using Cochran's formula for sample size calculation, the study determined a sample of 383 participants. This accounted for a 95% confidence level and a 5% margin of error, ensuring accuracy and reliability. Bowley's proportional allocation formula was applied to distribute the sample across the selected brokerage firms, as illustrated in Table **1** and Table **2**.

Table 1. Bowley's Allocation Formula.

Brokerage Firm	Formula	Result
Morgan capital securities limited	nNh = 383(19,500)	46
	N 161,200	
Stanbic IBTC stockbrokers limited	nNh = 383(24,000)	57
	N 161,200	
Cardinalstone securities limited	nNh = 383(21,300)	51
	N 161,200	

APT securities and funds	nNh = 383(18,900)	45
	N 161,200	
Meristem Stockbrokers Limited	nNh = 383(17,800)	42
	N 161,200	
EFG Hermes NIG Limited	nNh = 383(16,500)	39
	N 161,200	
FIS Securities	nNh = 383(15,000)	36
	N 161,200	
United capital securities limited	nNh = 383(14,400)	34
	N 161,200	
Reading investment limited	nNh = 383(13,800)	33
	N 161,200	

Source: Author's Computation, 2025.

Table 2. Final Allocated Sample Sizes and Questionnaire Administration.

Broker Name	Quantity	% of Volume	N_i (Active Investors)	Sample Size (n_i)	No. of Questionnaire
Morgan capital securities limited	6,031,339,621	6.80	19,500	46	46
Stanbic IBTC stockbrokers limited	4,669,244,471	5.26	24,000	57	57
Cardinalstone securities limited	7,696,053,217	8.67	21,300	51	51
APT securities and funds	3,640,207,462	4.10	18,900	45	45
Meristem stockbrokers limited	3,796,883,166	4.28	17,800	42	42
EFG NIG hermes limited	2,492,000,012	2.81	16,500	39	39
FIS securities	3,320,049,188	3.74	15,000	36	36
united capital securities limited	3,285,379,235	3.70	14,400	34	34
readings investment limited	1,951,819,713	2.20	13,800	33	33
TOTAL	36,882,976,085	41.56	161,200	**383**	**383**

Source: Broker Performance Report (2024) and Field Survey, 2025.

Table 3. Cronbach's Alpha Reliability Analysis.

Variables	Items	Cronbach's Alpha
Investment Decision-Making	5	0.790
Environmental Factors	5	0.731
Social Factors	5	0.862
Governance Factors	5	0.755
Investment Horizon	5	0.807

Source: SPSS 27 Output, 2025.

Data were collected via structured questionnaires, divided into sections for demographics, sustainability factors, investment horizon, and decision-making. A five-point Likert scale quantified responses, and data were processed using SPSS and AMOS software. Validity was confirmed through content and convergent validity measures, with Average Variance Extracted (AVE) exceeding 0.50. Reliability was verified through Cronbach's Alpha, with all variables meeting or exceeding the threshold of 0.70 (see Table **3**).

Data were analyzed using descriptive and inferential statistics. Descriptive methods summarized variables, while Structural Equation Modeling (SEM) assessed complex rela-

tionships. Goodness-of-fit indices such as CFI, RMSEA, and TLI validated the model's adequacy, ensuring robust findings.

3.1. Model Specification

This research adapts the empirical work of Sayema *et al* (2017) to specify the functional form of the model and examine the effect of sustainability factors on investor decision-making in the NGX. The structural equation model (SEM) is employed to test the hypotheses for this research.

The dependent variable is Investor Decision-Making (IDM), the mediating variable is Investment Horizon (IH), and the independent variables are Sustainability Factors, categorized into Environmental Factors (EF), Social Factors (SF), and Governance Factors (GF).

Dependent Variable:

Y=Investor Decision-Making (IDM)

*IDM= f(EF,*SF,*GF)*   (3.1)

Independent Variables:

X = Sustainability Factors (SFs)

*SFs = f(EF,*SF,*GF)*   (3.2)

Mediating Variable:

M = Investment Horizon (IH)

Functional Relationships:

The functional forms of the model are expressed as follows:

Y = f(X_t) (3.3)

M = f(X_t)   *(3.4)*

Y = f(M_t)   (3.5)

Structural Form of the Model:

$IDM_t = \beta_0 + \beta_1 EF_{it} + \beta_2 SF_t + \beta_3 GF_{it} + \mu_{it}$ (3.6)

$IH_t = \beta_0 + \beta1 EF it + \beta_2 SF_t + \beta_3 GF_{it} + \mu_{it}$ (3.8)

$IDM_t = \beta_0 + \beta_1 IH_{it} + \mu_{it}$ (3.9)

Where:

IDM_t = Investor Decision-Making at time t

IH_t = Investment Horizon at time t

EF_t = Environmental Factors at time t

SF_t = Social Factors at time t

GF_t = Governance Factors at time t

μ_t = Stochastic term

β_0 = Model intercept

β_1 to β_3 = Coefficients of explanatory variables

f = Functional relationship

This model framework will allow the analysis of direct and indirect effects of sustainability factors on investor decision-making, with investment horizon acting as a mediating variable.

From the above model the a priori expectations for ESG factors assume a positive influence on investment decisions, reflecting the increasing importance of environmental, social, and governance considerations for long-term sustainability and financial benefits. Specifically, environmental factors are expected to exhibit a positive relationship due to their alignment with renewable energy investments and sustainable growth. Social factors are similarly anticipated to have a positive impact, as community engagement is essential for corporate success and societal acceptance. Governance factors are expected to positively affect decisions through enhanced decision-making from board diversity, attracting long-term investors. Additionally, the investment horizon is anticipated to be positively influenced by ESG factors, as a greater focus on sustainability encourages longer-term investment strategies. Overall, ESG factors are presumed to favorably impact investment decisions, with a potential mediating role of the investment horizon.

In the test of significance, the statistical evaluation of model coefficients was conducted at a 5% significance level. Goodness-of-fit indices, including Comparative Fit Index (CFI), and Root Mean Square Error of Approximation (RMSEA), were employed to validate the overall model fit.

4. FINDINGS

The structural equation model is composed of two key components: the measurement model and the structural model. The measurement model focuses on assessing the relationships between latent variables and their observed indicators, while the structural model examines the interactions and relationships among the latent variables themselves. In this study, a first-order analytical measurement model was developed and analyzed. Evaluating the measurement model is crucial for determining the validity and reliability of the construct measurements. Skipping this step and proceeding directly to the structural model can lead to poor model fit, which may arise either from deficiencies in the measurement of constructs or inaccuracies in the theorized relationships between the constructs.

4.1. Results of the Measurement Model

The measurement model was evaluated using confirmatory factor analysis (CFA) to examine the relationship between latent variables and their observed measures. This approach ensures the reliability and validity of the construct measurements before proceeding to the structural model.

The model fit indices show a good fit overall. The Chi-Square/df value of 2.110 indicates an acceptable fit. Goodness-of-Fit Index (GFI = 0.920) and Adjusted GFI (AGFI = 0.897) suggest the model explains the data well, though AGFI is slightly below the threshold. Comparative Fit Index (CFI = 0.957) and Normed Fit Index (NFI = 0.923) confirm the model's robustness. Root Mean Square Error of Approximation (RMSEA = 0.054, PCLOSE = 0.210) indicates minimal approximation error. These results validate the measurement model and provide a reliable foundation for testing the structural model. By allowing all latent variables to correlate, the CFA ensured that the relationships between

measurement indicators and latent constructs were accurately captured. The high-quality fit indices demonstrate the model's authenticity and theoretical soundness, reducing the risk of a poor fit in subsequent structural analyses.

Table **5** below further summarizes the reliability and validity assessment for the constructs in the research aimed at assessing the effect of Sustainability Factors on Investor's Decision in the Nigerian Exchange Group (NGX).
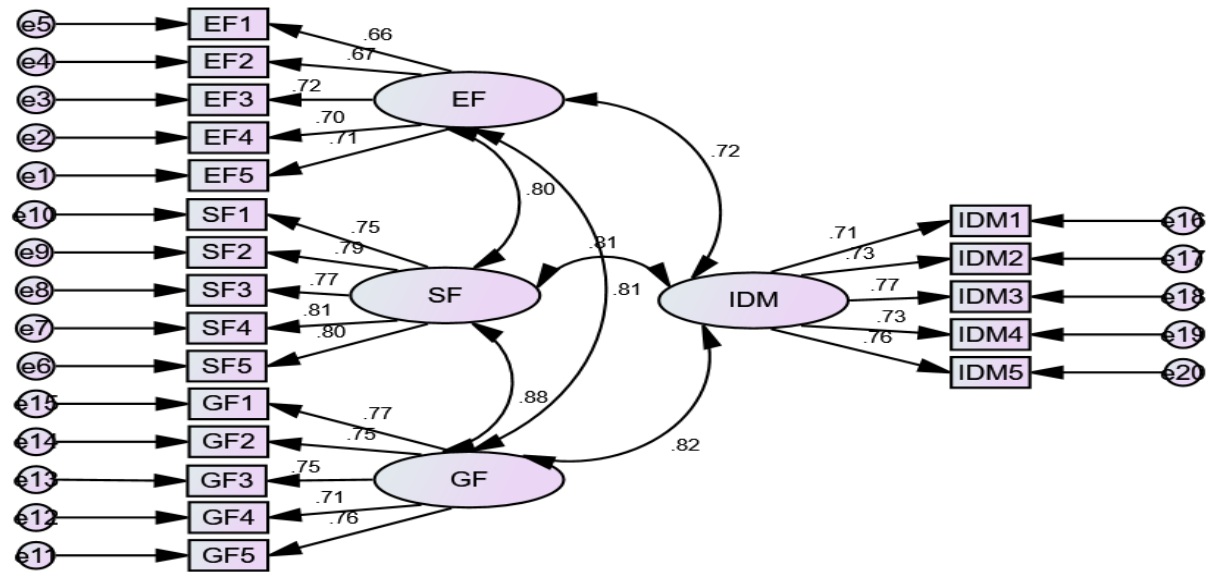
Fig. (2). Measurement Model.

Source: SPSS 27/AMOS 24 Output, 2025.

Table 4. Summary of Measurement Model Fit Indices.

Fit Index	Value	Threshold	Interpretation
Chi-Square/df	2.110	< 3	Good fit.
GFI	0.920	≥ 0.90	Good fit.
AGFI	0.897	≥ 0.90 (close to threshold)	Near-good fit.
NFI	0.923	≥ 0.90	Good fit.
CFI	0.957	≥ 0.95	Excellent fit.
RMR	0.021	Close to 0	Excellent fit.
RMSEA	0.054	≤ 0.06	Good fit, minimal approximation error.
PCLOSE	0.210	> 0.05	Supports good model fit.
PRATIO	0.863	High values desirable	Parsimonious model with a balance between fit and simplicity.
PNFI	0.796	> 0.70	Good fit.
PCFI	0.826	> 0.70	Good fit.

Source: SPSS 27/AMOS 24 Output, 2025.

Table 5. Reliability and Validity Assessment.

Constructs	Items	Standardized Factor Loadings	Cronbach's Alpha	Composite Reliability (CR)	Average Variance Extracted (AVE)
Investment Decision-Making (IDM)	IDM1	.708	.790	0.832	0.528
	IDM2	.728			
	IDM3	.771			
	IDM4	.727			

	IDM5	.756				
Environmental Factors (EF)	EF1	.661	.731	0.871	0.531	
	EF2	.671				
	EF3	.724				
	EF4	.701				
	EF5	.710				
Social Factors (SF)	SF1	.747	.862	0.809	0.557	
	SF2	.792				
	SF3	.768				
	SF4	.808				
	SF5	.804				
Governance Factors (GF)	GF1	.766	.755	0.790	0.560	
	GF2	.749				
	GF3	.745				
	GF4	.713				
	GF5	.759				
Investment Horizon (IH)	IH1	.656	.807	0.876	0.572	
	IH2	.701				
	IH3	.656				
	IH4	.704				
	IH5	.693				

Source: Author's computation, 2025.

Table 6. Regression Weights: Parameter Estimates.

Path	Estimate	S.E.	C.R.	*P*-Value	Interpretation
IDM <--- EF	0.171	0.048	3.550	***	Environmental factors (EF) have a significant effect on investment decision-making (IDM).
IDM <--- SF	0.433	0.052	8.339	***	Social factors (SF) strongly influence investment decision-making (IDM).
IDM <--- GF	0.395	0.049	8.053	***	Governance factors (GF) significantly impact investment decision-making (IDM).

Note: *** indicates statistical significance at $P<0.00$.

C.R. (Critical Ratio) > 1.96 implies the effect is significant.

Source: SPSS 27/AMOS 24 Output, 2025.

From the result presented above the Cronbach's Alpha shows that all constructs have values above the threshold of 0.70, indicating strong internal consistency. Also, the Composite Reliability (CR) indicated that all constructs exceed the 0.70 benchmark, confirming the reliability of the measures. Whereas the Average Variance Extracted (AVE) values are above 0.50 for all constructs, suggesting adequate convergent validity. And finally all standardized factor loadings exceed 0.60, reflecting strong item reliability.

4.2. Results of the Structural Equation Model (SEM)

Table **6** summarizes the direct relationships between sustainability factors and investment decision-making (IDM) thus:

Direct Effects of Sustainability Factors (H01, H02, H03)

Environmental factors (EF), social factors (SF), and governance factors (GF) all have significant direct impacts on
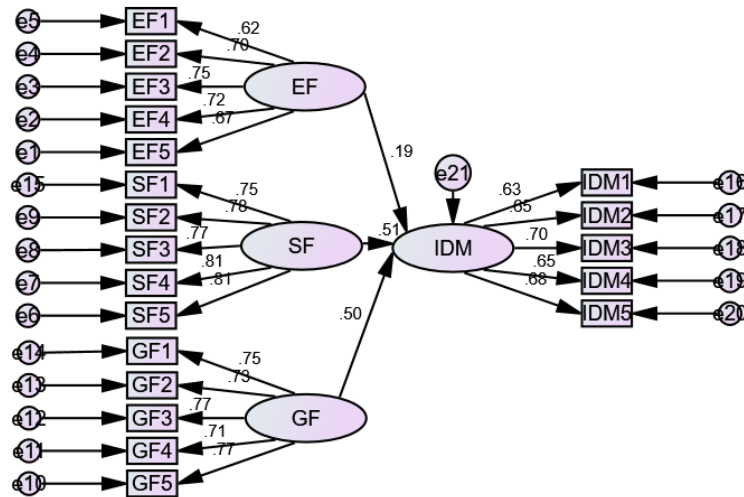
Fig. (3). Structural Equation Model.
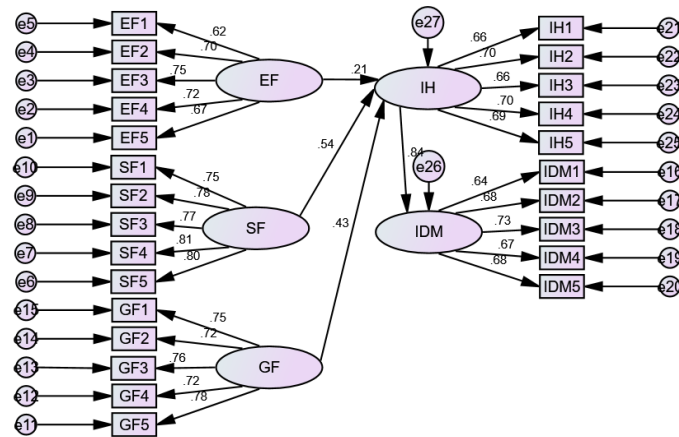
Source: SPSS 27/AMOS 24 Output, 2025.

Fig. (4). Mediation Model.

Source: SPSS 27/AMOS 24 Output, 2025.

investors' decision-making (IDM) in the Nigerian Exchange Group (NGX). Among these:

Social factors (SF) exhibit the strongest effect (Estimate=0.433, *P*<0.001), suggesting that investors are highly influenced by social considerations, such as corporate social responsibility or employee welfare.

 Governance factors (GF) also have a substantial influence (Estimate=0.395, *P*<0.001), highlighting the importance of transparency, accountability, and board practices.

 Environmental factors (EF) have a smaller but significant impact (Estimate=0.171, *P*<0.001), indicating that eco-friendly practices are less prioritized but still considered by investors.

 From Table **6** we assume the standardized path coefficients (estimates) represent the strength of the relationship between the independent variables (EF, SF, GF) and the dependent variable (IDM). A one-unit increase in the independent variable leads to a corresponding percentage change in the dependent variable, assuming other factors are held constant.

 Firstly, looking at the Effect of Environmental Factors (EF) on Investment Decision-Making (IDM): Estimate: 0.171

 This simply means that a one-unit increase in environmental factors leads to a 17.1% increase in investment decision-making. This indicates that investors are moderately influenced by environmental sustainability considerations when making decisions.

 Secondly, in analyzing the Effect of Social Factors (SF) on Investment Decision-Making (IDM) with Estimated coefficient of 0.433

 Simply means that a one-unit increase in social factors results in a 43.3% increase in investment decision-making. Social factors have the strongest influence among the three variables, highlighting their critical role in shaping investors' decisions.

 Thirdly, on the Effect of Governance Factors (GF) on Investment Decision-Making (IDM): Estimate: 0.395

 Implies that a one-unit increase in governance factors leads to a 39.5% increase in investment decision-making.

Table 7. Mediation Model Results.

Path	Estimate	S.E.	C.R.	P-Value	Interpretation
IH <--- EF	0.180	0.043	4.186	***	Environmental factors (EF) significantly influence investment horizon (IH).
IH <--- SF	0.417	0.046	8.977	***	Social factors (SF) strongly influence investment horizon (IH).
IH <--- GF	0.308	0.040	7.631	***	Governance factors (GF) significantly affect investment horizon (IH).
IDM <--- IH	0.957	0.098	9.768	***	Investment horizon (IH) has a strong and significant mediating effect on IDM.

Source: SPSS 27/AMOS 24 Output, 2025.

This shows governance factors significantly affect investors, reflecting their importance in corporate accountability and management practices.

We can conclude here that, social factors exert the most substantial influence (43.3%), followed by governance factors (39.5%), and environmental factors (17.1%) in shaping investment decisions in the Nigerian Exchange Group (NGX). These findings emphasize the importance of sustainability factors in modern investment strategies.

The Squared Multiple Correlations (SMC) indicate the proportion of variance in each observed variable or latent construct that is explained by its predictors. The higher the SMC value, the stronger the explanatory power of the predictors for that particular variable.

From the results we can conclude that all constructs (IDM, EF, SF, GF) and their items exhibit good explanatory power. The high variance explained in SF and GF items suggests these factors are strong predictors of IDM, while EF items show moderate explanatory power. These findings highlight the importance of sustainability factors particularly social and governance dimensions in shaping investment decision-making in the Nigerian Exchange Group.

4.3. Mediation Effects (Mediation Model)

This table presents the relationships where investment horizon (IH) mediates the effects of sustainability factors on investment decision-making (IDM):

Mediation Effect of Investment Horizon (H04)

The results reveal that investment horizon (IH) mediates the relationship between sustainability factors (EF, SF, GF) and investment decision-making (IDM). Specifically:

Social factors (SF) have the strongest effect on IH (Estimate = 0.417, $P<0.001$), followed by governance factors (GF, Estimate = 0.308), and environmental factors (EF, Estimate = 0.180).

Investment horizon (IH) significantly influences IDM (Estimate=0.957, $P<0.001$), indicating that IH acts as a strong mediator in the relationship between sustainability factors and IDM.

4.4. Hypotheses Testing

Based on the results presented above the hypotheses stated in chapter 1 are evaluated as follows:

$H0_1$: Environmental factors do not affect investors' decision-making in the Nigerian Exchange Group.

Based on the findings of this research $H0_1$ is rejected because environmental factors significantly affect investors' decision-making.

$H0_2$: Social factors do not influence investors' decision-making in the Nigerian Exchange Group.

$H0_2$: Rejected because it was found that social factors strongly influence investors' decision-making.

$H0_3$: Governance factors have no impact on investors' decision-making in the Nigerian Exchange Group

$H0_3$: Rejected because Governance factors significantly impact investors' decision-making.

$H0_4$: Investment horizon does not mediate between sustainability factors and investment decisions in the Nigerian Exchange Group

$H0_4$: Rejected as it was discovered that Investment horizon mediates the relationship between sustainability factors and investment decisions.

These results underscore the critical role of sustainability factors in shaping investor behavior in the NGX, with investment horizon serving as a key mediating variable.

Furthermore, the findings of this study align with several prior research works that have explored the relationship between sustainability factors and investor decision-making. Notably, the significant impact of social and governance factors corroborates the conclusions of Friede, Busch, and Bassen (2015)**,** who found that ESG considerations positively influence financial performance and attract investor interest. Similarly, Eccles, Ioannou, and Serafeim (2014) demonstrated that firms with strong sustainability practices tend to outperform their peers in the long term, which aligns with this study's findings on the importance of governance and social factors.

Furthermore, Wang *et al.* (2016) demonstrated that social factors, such as corporate social responsibility (CSR) activities, positively affect investor trust and decision-making. This resonates with the finding that social factors had the strongest effect on investment decisions in this study. Additionally, the mediating role of investment horizon aligns with Bassen and Kovács (2008)**,** who emphasized the importance of long-term sustainability considerations in investment strategies, particularly for ESG-conscious investors. Fatemi *et al.* (2018) highlighted that investors are increasingly favoring companies with strong governance and transparency, aligning with this research's findings on the significant role of governance factors in investment decision-making in the Nigerian Exchange Group (NGX).

The mediating role of investment horizon observed in this research is supported by Hart and Ahuja (1996), who emphasized that long-term investments in sustainable practices yield positive financial outcomes and build investor trust. Additionally, the role of environmental factors, though weaker in this study, is consistent with findings by Clark, Feiner, and Viehs (2015)**,** which indicated that environmental considerations are increasingly significant as global awareness of climate risks grows.

These demonstrate the consistency of this study's findings with existing literature, reinforcing the growing recognition of sustainability as a critical driver of investment decisions globally.

The findings of this study underscore the importance of sustainability factors environmental, social, and governance (ESG) in shaping investment decisions in the Nigerian Exchange Group (NGX). The significant impact of social and governance factors suggests that policymakers should focus on creating a regulatory environment that fosters corporate responsibility and transparency. Strengthening corporate governance codes, mandating comprehensive ESG disclosures, and incentivizing socially responsible business practices can enhance investor confidence and attract both domestic and foreign investments to the NGX. Additionally, the mediating role of investment horizon indicates that investors with a long-term perspective are more inclined to prioritize sustainability in their decision-making. This finding highlights the need for policies that encourage long-term investments. Policymakers can achieve this by introducing tax incentives, reducing transaction costs for long-term investment products, and promoting instruments such as green bonds and sustainability-linked financial products. These measures would not only align the NGX with global sustainability trends but also support Nigeria's broader economic and sustainable development objectives.

CONCLUSION

This study examined the effect of sustainability factors environmental, social, and governance on investors' decision-making in the Nigerian Exchange Group (NGX), while also exploring the mediating role of investment horizon. The findings reveal that all three sustainability factors significantly influence investment decisions, with social factors exerting the strongest direct impact. Governance practices and environmental considerations also play important roles, highlighting the growing preference of investors for compa-

nies that demonstrate responsibility in these areas. This underscores the critical importance of sustainability in shaping investor behavior within the NGX. The results further demonstrate that the investment horizon mediates the relationship between sustainability factors and investment decisions. Investors with longer investment horizons are more likely to prioritize sustainability, suggesting that fostering long-term investment perspectives can amplify the impact of sustainability initiatives. This finding emphasizes the need for tailored investment policies that incentivize long-term, sustainable investment strategies to enhance the NGX's attractiveness to a broader investor base.

In conclusion, the study provides valuable insights for policymakers, regulators, and corporate stakeholders. Encouraging environmental sustainability, promoting social responsibility, and strengthening governance practices are key strategies to attract and retain sustainability-conscious investors. Additionally, fostering a culture of long-term investment through targeted incentives can further align investor preferences with sustainable development goals. By implementing these measures, the NGX can position itself as a leader in sustainable investment within the region, contributing to Nigeria's broader economic and environmental objectives.

RECOMMENDATIONS

I.　Promote Environmental Sustainability**:** Encourage listed companies to adopt eco-conscious practices, such as reducing carbon emissions and implementing green initiatives. Mandating ESG disclosures can enhance transparency and attract environmentally conscious investors.

II.　Enhance Social Responsibility**:** Support companies engaging in corporate social responsibility (CSR) activities and equitable labor practices through incentives and rewards. These measures can boost investor confidence and strengthen capital inflows.

III.　Strengthen Governance Frameworks**:** Improve corporate governance codes by focusing on board diversity, transparency, and anti-corruption measures. These enhancements will build investor trust and mitigate governance-related risks.

IV.　Leverage Investment Horizon for Sustainability**:** Promote long-term investment tools like green bonds and sustainability-linked products. Tax incentives and reduced transaction costs can encourage sustainable, long-term investments aligned with global trends.

CONFLICT OF INTEREST

The author(s) declare that there are no potential conflicts of interest related to the research, authorship, or publication of this article.

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