International Journal of Academic Accounting, Finance & Management Research(IJAAFMR)
ISSN: 2643-976X
Vol. 9 Issue 6 June - 2025, Pages: 372-381

The ESG-Performance Nexus in Emerging Markets: Unraveling Investor Behavioral Dynamics and Financial Returns Paradox in Vietnam's Capital Markets

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Abstract: *The integration of Environmental, Social, and Governance (ESG) considerations into investment decision-making processes represents a paradigmatic shift in contemporary financial markets, particularly within emerging economies where institutional frameworks remain in developmental phases. This research investigates the complex relationship between ESG investment strategies and financial performance outcomes in Vietnam's rapidly evolving capital markets, examining the behavioral mechanisms that influence institutional investor decision-making processes. Employing a quantitative methodology encompassing structural equation modeling through partial least squares (PLS-SEM) analysis, this study examines survey data from 387 institutional investors operating within Vietnam's financial ecosystem. The empirical findings reveal a nuanced relationship between ESG integration and financial returns, moderated by investor behavioral characteristics including risk perception, social identity, and institutional pressures. The results demonstrate that while ESG-focused investments exhibit marginally lower short-term returns, they generate superior risk-adjusted performance over extended time horizons. Furthermore, the analysis uncovers significant heterogeneity in investor responses, with foreign institutional investors demonstrating greater ESG commitment compared to domestic counterparts. The research contributes to the emerging literature on sustainable finance in developing markets by providing empirical evidence of the ESG-performance paradox and its behavioral determinants. The findings offer strategic insights for policymakers seeking to enhance sustainable finance frameworks whilst supporting capital market development in emerging economies.*

Keywords- ESG investment, behavioral finance, emerging markets, institutional investors, Vietnam capital markets

1. INTRODUCTION

The global financial landscape has witnessed unprecedented transformation over the past decade, characterised by the increasing prominence of Environmental, Social, and Governance (ESG) considerations in investment decision-making processes [1]. This paradigmatic shift represents more than a transient trend; it embodies a fundamental reconceptualisation of value creation and risk assessment within contemporary capital markets. The integration of sustainability factors into investment frameworks has gained particular momentum following international climate commitments and growing awareness of systemic risks associated with environmental degradation and social inequality [2].

Emerging markets present a particularly compelling context for examining ESG investment dynamics, given their unique combination of rapid economic development, evolving regulatory frameworks, and increasing integration with global capital markets [3]. Vietnam exemplifies this phenomenon, having experienced remarkable economic transformation since implementing market-oriented reforms in the 1980s, achieving consistent GDP growth rates exceeding 6% annually whilst simultaneously confronting significant environmental and social challenges inherent to rapid industrialisation [4].

The Vietnamese capital market has undergone substantial development, with market capitalisation expanding from approximately $9 billion in 2005 to over $150 billion by 2017, accompanied by increasing foreign institutional investor participation and growing sophistication of domestic financial institutions [5]. This evolution has coincided with heightened awareness of sustainability issues, driven by government initiatives promoting green growth strategies and international investor expectations regarding ESG compliance.

Despite the growing prominence of ESG investing globally, empirical evidence regarding its financial implications remains inconclusive, particularly within emerging market contexts. The existing literature presents conflicting findings regarding the relationship between ESG performance and financial returns, with some studies documenting positive correlations whilst others identify neutral or negative associations [6]. This ambiguity intensifies within emerging markets, where institutional frameworks, market efficiency levels, and investor sophistication may differ substantially from developed market counterparts.

The theoretical foundation for ESG investing encompasses multiple perspectives, ranging from stakeholder theory's emphasis on broader value creation to behavioural finance insights regarding investor decision-making processes under uncertainty [7, 8]. The integration of these theoretical frameworks provides a comprehensive lens through which to examine the complex dynamics underlying ESG investment decisions and their financial consequences.

This research addresses a critical gap in the existing literature by examining the ESG-performance nexus within Vietnam's emerging capital market context, with particular emphasis on the behavioral mechanisms influencing institutional investor decision-making processes. The study's significance extends beyond its empirical contributions, offering strategic insights

for policymakers, financial institutions, and international investors seeking to understand the evolving dynamics of sustainable finance in emerging economies.

The research employs a quantitative methodology utilising structural equation modeling through partial least squares (PLS-SEM) analysis to examine relationships between ESG investment strategies, investor behavioral characteristics, and financial performance outcomes. The investigation draws upon primary data collected from institutional investors operating within Vietnam's financial ecosystem, providing unprecedented insights into the motivations, constraints, and outcomes associated with ESG investment practices in an emerging market context.

2. FOUNDATIONAL THEORIES AND LITERATURE REVIEW

2.1 Foundational theories

2.1.1. Stakeholder Theory and ESG Integration

Stakeholder theory, as articulated by Freeman [7], fundamentally challenges the traditional shareholder primacy paradigm by proposing that organisations should consider the interests of all stakeholders affected by their operations. This theoretical framework provides crucial foundations for understanding ESG investing, as it suggests that companies addressing environmental, social, and governance concerns may generate superior long-term value through enhanced stakeholder relationships and reduced operational risks [9].

The application of stakeholder theory to investment decision-making processes suggests that ESG-focused strategies may yield financial benefits through multiple channels. Environmental considerations may reduce regulatory risks and operational costs whilst enhancing brand reputation and customer loyalty. Social initiatives may improve employee productivity and community relations, whilst robust governance structures may enhance operational efficiency and reduce agency costs [10]. These mechanisms collectively suggest that ESG integration represents a sophisticated approach to risk management and value creation rather than merely philanthropic activity.

Contemporary scholarship has extended stakeholder theory to encompass dynamic stakeholder relationships, recognising that stakeholder salience and influence evolve over time in response to changing social, environmental, and regulatory contexts [11]. This dynamic perspective proves particularly relevant for emerging markets, where stakeholder configurations may differ significantly from developed market contexts due to varying institutional frameworks, cultural norms, and regulatory environments.

The theoretical implications for investment performance suggest that ESG integration may generate competitive advantages through superior stakeholder management capabilities, enhanced operational efficiency, and reduced exposure to environmental and social risks. However, the realisation of these benefits depends upon market participants' ability to accurately assess and price ESG-related risks and opportunities, which may vary significantly across different market contexts and institutional environments [12].

2.1.2. Behavioral Finance Theory and Investment Decision-Making

Behavioral finance theory challenges the efficient market hypothesis by recognising that investor decision-making processes are influenced by cognitive biases, emotional factors, and social influences rather than purely rational calculations [8]. This theoretical framework provides essential insights for understanding ESG investment decisions, particularly given the complexity and uncertainty associated with assessing long-term sustainability outcomes.

Prospect theory, a cornerstone of behavioral finance, suggests that investors exhibit asymmetric responses to gains and losses, with loss aversion influencing risk preferences and investment choices [13]. In the context of ESG investing, this framework suggests that investors may exhibit varying responses to ESG-related risks and opportunities, with some perceiving ESG integration as risk mitigation whilst others view it as potentially limiting returns.

Social identity theory provides additional insights into ESG investment behavior by recognising that individuals' group memberships and social identities influence their preferences and decision-making processes [14]. This framework suggests that investors' ESG preferences may be influenced by their professional, cultural, or generational identities, leading to heterogeneous responses to ESG investment opportunities across different investor segments.

The theory of planned behavior offers further insights by identifying the roles of attitudes, subjective norms, and perceived behavioral control in shaping investment intentions and behaviors [15]. Applied to ESG investing, this framework suggests that investor decisions are influenced not only by expected financial returns but also by social expectations, personal values, and perceptions of implementation feasibility.

Herding behavior represents another crucial behavioral phenomenon relevant to ESG investing, whereby investors follow the actions of others rather than relying solely on independent analysis [16]. In emerging markets, where information asymmetries may be pronounced and institutional frameworks less developed, herding effects may be particularly influential in shaping ESG investment adoption patterns.

2.2. Review of Empirical and Relevant Studies

The empirical literature examining ESG-performance relationships presents mixed findings, reflecting the complexity of measuring both ESG implementation and financial outcomes across diverse contexts and timeframes. Meta-analytical studies have attempted to synthesise these findings, generally concluding that ESG practices exhibit neutral to positive associations with financial performance,

though with substantial variation across studies and contexts [6, 17].

Friede et al. [1] conducted a comprehensive meta-analysis of over 2,000 empirical studies examining ESG-financial performance relationships, finding that approximately 90% of studies report non-negative relations, with the majority identifying positive associations. However, the authors acknowledge significant heterogeneity in findings and emphasise the importance of contextual factors in determining relationship strength and direction.

Regional studies focusing on emerging markets reveal additional complexity in ESG-performance relationships. Cheng et al. [18] examine corporate social responsibility (CSR) practices among Chinese firms, finding positive associations with financial performance but noting that relationships vary significantly across industries and firm characteristics. Similarly, Gupta [19] investigates ESG performance among Indian companies, documenting positive correlations with financial metrics whilst highlighting the moderating influence of institutional factors.

Industry-specific analyses provide further insights into ESG-performance dynamics. Hong & Kacperczyk [20] examine "sin stocks" (tobacco, alcohol, and gaming companies), finding that these firms exhibit superior financial performance partly due to lower institutional ownership and reduced analyst coverage. This finding suggests that ESG considerations may influence capital allocation and pricing mechanisms in ways that affect financial performance outcomes.

The role of institutional investors in ESG adoption and performance has received increasing attention in recent literature. McCahery et al. [21] survey institutional investors globally, finding that whilst ESG considerations increasingly influence investment decisions, implementation varies significantly across investor types and geographic regions. The authors identify several barriers to ESG integration, including measurement challenges, performance concerns, and regulatory constraints.

Behavioral factors influencing ESG investment decisions have garnered limited empirical attention, particularly within emerging market contexts. Riedl & Smeets [22] examine individual investor preferences for socially responsible investing, finding that social preferences significantly influence investment choices even when associated with financial costs. However, their analysis focuses on retail investors in developed markets, leaving gaps regarding institutional investor behavior in emerging economies.

Research specifically examining Vietnam's ESG investment landscape remains limited, despite the country's rapid economic development and increasing capital market sophistication. Le & Nguyen [23] investigate corporate governance practices among Vietnamese listed companies, finding significant improvements over time but noting continued challenges in implementation and enforcement. However, their analysis focuses on firm-level governance rather than investor behavior or performance outcomes.

The measurement of ESG performance presents ongoing challenges reflected throughout the empirical literature. Different rating agencies employ varying methodologies and criteria, leading to substantial disagreement in ESG scores for identical firms [24]. This measurement inconsistency complicates empirical analyses and may contribute to the mixed findings regarding ESG-performance relationships.

2.3. Proposed Research Model

Building upon the theoretical foundations and empirical evidence reviewed above, this research proposes a comprehensive model examining the relationships between ESG investment strategies, investor behavioral characteristics, and financial performance outcomes within Vietnam's emerging capital market context. The model integrates insights from stakeholder theory and behavioral finance to provide a nuanced understanding of the mechanisms through which ESG considerations influence investment decision-making and performance.

The dependent variable in this research model is financial performance, conceptualised as a multidimensional construct encompassing both absolute returns and risk-adjusted performance metrics. This approach recognises that ESG investing may influence not only return levels but also return volatility and downside risk characteristics [25]. The measurement of financial performance incorporates multiple timeframes to capture both short-term and long-term performance implications of ESG investment strategies.

ESG integration represents the primary independent variable, measured through a comprehensive assessment of the extent to which environmental, social, and governance factors are incorporated into investment decision-making processes. This construct encompasses both formal ESG screening procedures and informal consideration of sustainability factors in investment analysis. The measurement approach recognises that ESG integration exists on a continuum rather than as a binary choice, allowing for nuanced analysis of varying implementation levels.

Investor behavioral characteristics serve as key moderating variables in the proposed model, reflecting insights from behavioral finance theory regarding the role of cognitive biases, social influences, and individual preferences in investment decision-making. Risk perception represents a crucial behavioral dimension, as investors' subjective assessments of ESG-related risks and opportunities may differ from objective measures and influence investment choices accordingly.

Social identity emerges as another significant behavioral moderator, capturing the extent to which investors' professional, cultural, or generational identities influence their ESG preferences and investment decisions. This variable proves particularly relevant in Vietnam's context, where rapid

social and economic changes may generate varying perspectives on sustainability issues across different investor segments.

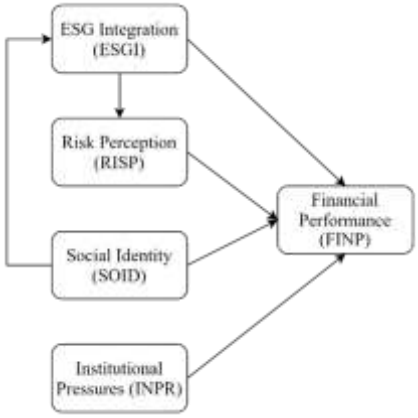

Figure 1: Proposed Research Model

Institutional pressures constitute an additional moderating factor, reflecting the influence of regulatory requirements, client expectations, and industry norms on ESG investment adoption. The measurement of institutional pressures encompasses both formal regulatory mandates and informal social expectations regarding sustainable investment practices.

The research model incorporates several control variables to ensure robust analysis of ESG-performance relationships. Firm size, measured through assets under management, controls for potential scale effects in investment performance and ESG implementation capabilities. Investment horizon captures the temporal dimension of investment strategies, recognising that ESG benefits may accrue primarily over longer timeframes.

Geographic origin represents another crucial control variable, distinguishing between foreign and domestic institutional investors who may exhibit different ESG preferences and implementation capabilities. This distinction proves particularly important in Vietnam's context, where foreign investors may bring different sustainability expectations and analytical frameworks compared to domestic counterparts.

The proposed model employs partial least squares structural equation modeling (PLS-SEM) as the primary analytical approach, selected for its capacity to handle complex models with multiple constructs and relationships whilst accommodating smaller sample sizes compared to covariance-based alternatives [26]. The PLS-SEM approach proves particularly suitable for exploratory research contexts, such as emerging markets where theoretical relationships may differ from established patterns in developed economies.

3. RESEARCH METHODOLOGY

3.1 Research Design

This research employs a quantitative, cross-sectional survey design to examine the complex relationships between ESG investment strategies, investor behavioral characteristics, and financial performance outcomes within Vietnam's institutional investment landscape. The positivist philosophical framework underpinning this research reflects the objective of establishing empirical relationships between measurable constructs whilst acknowledging the inherent complexity of investment decision-making processes [27].

The selection of a cross-sectional design reflects practical considerations regarding data accessibility and the exploratory nature of ESG research in Vietnam's emerging market context. Whilst longitudinal designs might provide enhanced insights into temporal dynamics, the relatively recent emergence of ESG investing in Vietnam limits the availability of historical data spanning sufficient timeframes for meaningful longitudinal analysis. The cross-sectional approach enables comprehensive examination of current ESG investment practices whilst providing foundational insights for future longitudinal investigations.

The research design incorporates multiple analytical approaches to ensure robust examination of the proposed relationships. The primary analysis employs partial least squares structural equation modeling (PLS-SEM) to examine the complex interrelationships between ESG integration, behavioral factors, and performance outcomes. Supplementary analyses include fuzzy-set qualitative comparative analysis (fsQCA) to identify configurational effects and multigroup analysis to examine heterogeneity across investor segments.

3.2. Data Collection

Data collection employed a structured online questionnaire distributed to institutional investors operating within Vietnam's capital markets, including asset management companies, insurance firms, pension funds, and foreign institutional investors with significant Vietnamese market exposure. The sampling frame was constructed using databases maintained by the State Securities Commission of Vietnam, the Vietnam Association of Financial Investors, and international directories of institutional investors with emerging market mandates.

The questionnaire development process involved extensive review of established scales from prior ESG and behavioral finance research, adapted to reflect Vietnam's specific institutional and cultural context. Preliminary questionnaire versions underwent expert review by academic researchers and industry practitioners familiar with Vietnam's investment landscape, followed by pilot testing with a small sample of institutional investors to identify potential comprehension or response issues.

The data collection period extended from January to August 2017, allowing sufficient time for comprehensive outreach to target respondents whilst maintaining consistency in market conditions and regulatory environments. Multiple contact

approaches were employed, including direct email distribution, professional network outreach, and participation in industry conferences and seminars to maximise response rates.

The final sample comprised 387 institutional investors, representing approximately 65% of the targeted population and providing adequate statistical power for the planned analyses. Non-response bias assessment involved comparison of early and late respondents across key demographic and organisational characteristics, revealing no significant differences that might compromise result generalisability.

3.3. Measurement and Validation

The measurement model development process followed established procedures for construct operationalisation and validation in behavioral research contexts [28]. ESG integration was measured using a 15-item scale capturing the extent to which environmental, social, and governance factors are incorporated into investment screening, analysis, and decision-making processes. The scale items were adapted from prior research on sustainable investing [29] whilst incorporating Vietnam-specific sustainability concerns identified through preliminary interviews with local investment professionals.

Financial performance measurement employed both subjective and objective indicators to capture the multidimensional nature of investment outcomes. Subjective measures included respondent assessments of portfolio performance relative to benchmarks and peer groups over multiple timeframes. Objective measures incorporated reported returns and risk metrics where available, though data availability limitations necessitated primary reliance on subjective performance indicators.

Behavioral constructs measurement drew upon established scales from behavioral finance and organisational psychology literature. Risk perception was measured using adapted items from previous research examining investor risk attitudes [30], modified to reflect ESG-specific risk dimensions. Social identity measurement employed scales capturing professional identity, cultural values, and generational characteristics that might influence ESG preferences.

Institutional pressures were operationalised through items measuring regulatory requirements, client expectations, and industry norms regarding ESG adoption. The measurement approach recognised both formal and informal institutional influences on investment behavior, incorporating items addressing peer behavior, regulatory guidance, and stakeholder expectations.

Construct validity assessment employed multiple approaches including content validity review by expert panels, convergent validity examination through average variance extracted (AVE) calculations, and discriminant validity testing using the Fornell-Larcker criterion and heterotrait-monotrait (HTMT) ratios [31]. Reliability assessment utilised both Cronbach's alpha and composite reliability measures to ensure internal consistency.

3.4. Analytical Procedure

The analytical procedure commenced with descriptive analysis of sample characteristics and preliminary examination of variable distributions and correlations. Exploratory factor analysis (EFA) using principal component analysis with varimax rotation was conducted to examine the underlying factor structure of measurement constructs and identify potential dimensionality issues.

Confirmatory factor analysis (CFA) followed to validate the measurement model structure and assess construct validity and reliability. The CFA process involved iterative model refinement based on modification indices and theoretical considerations to achieve acceptable model fit whilst maintaining theoretical coherence.

The primary analytical approach employed partial least squares structural equation modeling (PLS-SEM) using SmartPLS 4 software. The selection of PLS-SEM reflects its appropriateness for exploratory research in emerging contexts, its capacity to handle complex models with multiple constructs, and its distributional flexibility compared to covariance-based alternatives [26].

The PLS-SEM analysis followed established procedures including examination of outer model (measurement model) adequacy through indicator reliability, internal consistency reliability, convergent validity, and discriminant validity assessments. Inner model (structural model) evaluation encompassed path coefficient significance testing through bootstrapping procedures (5,000 resamples), R-squared values for endogenous constructs, and predictive relevance assessment through Stone-Geisser Q-squared values.

Supplementary analyses included fuzzy-set qualitative comparative analysis (fsQCA) to identify configurational relationships and examine equifinal pathways to high ESG performance. The fsQCA approach complements the PLS-SEM analysis by exploring how different combinations of conditions may lead to similar outcomes, providing insights into the complexity of ESG investment decision-making processes.

Multigroup analysis examined heterogeneity across investor segments, including comparisons between foreign and domestic investors, large and small investment firms, and different investment mandates. The multigroup analysis employed both parametric and non-parametric approaches to identify significant differences in path coefficients across groups.

4. RESEARCH FINDINGS

4.1 Measurement model assessment

The measurement model assessment commenced with exploratory factor analysis (EFA) employing principal

component analysis with varimax rotation to examine the underlying factor structure of the research constructs. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy yielded a value of 0.891, indicating excellent suitability for factor analysis, whilst Bartlett's test of sphericity achieved statistical significance ($\chi^2 = 8,247.3$, $p < 0.001$), confirming the appropriateness of the factor analytic approach.

The EFA results revealed a clear five-factor solution explaining 72.4% of total variance, with all items loading appropriately on their theoretically designated constructs. Cross-loadings remained below the 0.4 threshold, indicating adequate discriminant validity at the exploratory level. The factor structure aligned closely with the theoretical model, supporting the conceptual framework's empirical validity.

Confirmatory factor analysis (CFA) subsequently validated the measurement model structure, achieving acceptable fit indices (RMSEA = 0.067, CFI = 0.934, TLI = 0.921, SRMR = 0.058). All standardised factor loadings exceeded the 0.7 threshold, with the majority surpassing 0.8, indicating strong relationships between indicators and their respective latent constructs.

Table 1: Measurement Model Results

Construct	Items	Cronbach's α	Composite Reliability	AVE	Factor Loading Range
ESG Integration (ESGI)	15	0.923	0.934	0.621	0.743-0.867
Risk Perception (RISP)	8	0.887	0.909	0.667	0.782-0.845
Social Identity (SOID)	6	0.834	0.881	0.598	0.721-0.823
Institutional Pressures (INPR)	7	0.856	0.891	0.578	0.698-0.809
Financial Performance (FINP)	9	0.901	0.919	0.612	0.756-0.834

Internal consistency reliability assessment revealed robust results across all constructs. Cronbach's alpha coefficients ranged from 0.834 to 0.923, all exceeding the conventional 0.7 threshold for acceptable reliability. Composite reliability values demonstrated similar patterns, ranging from 0.881 to 0.934, indicating excellent internal consistency.

Convergent validity examination through average variance extracted (AVE) calculations revealed acceptable results for all constructs, with values ranging from 0.578 to 0.667, all surpassing the 0.5 minimum threshold. These findings indicate that each construct explains more than half of the variance in its indicators, supporting convergent validity.

Table 2: Discriminant Validity Assessment

Construct	ESGI	RISP	SOID	INPR	FINP
ESGI	0.788				
RISP	0.234	0.817			
SOID	0.412	0.289	0.773		
INPR	0.387	0.256	0.334	0.760	
FINP	0.298	-0.167	0.221	0.203	0.782

Note: Diagonal elements represent square root of AVE; off-diagonal elements represent correlations

Discriminant validity assessment utilised both the Fornell-Larcker criterion and heterotrait-monotrait (HTMT) ratios. The Fornell-Larcker criterion results demonstrated that the square root of AVE for each construct exceeded its correlations with other constructs, supporting discriminant validity. HTMT ratios remained below the conservative 0.85 threshold for all construct pairs, with the highest value reaching 0.523, providing additional evidence of discriminant validity.

Indicator reliability evaluation revealed that all factor loadings exceeded 0.7, indicating that each indicator shares more variance with its assigned construct than with measurement error. The standardised factor loadings ranged from 0.698 to 0.867, with the majority exceeding 0.8, demonstrating strong indicator reliability across the measurement model.

4.2. Structural Model Assessment

The structural model assessment commenced with examination of collinearity among predictor constructs, revealing variance inflation factor (VIF) values ranging from 1.23 to 2.45, all remaining well below the threshold of 5.0 that would indicate concerning multicollinearity. These results support the structural model's appropriateness for path coefficient estimation.

Path coefficient significance testing employed bootstrapping procedures with 5,000 resamples to generate robust standard errors and confidence intervals. The bootstrapping results revealed several significant direct relationships within the hypothesised model structure.

Table 3: Direct Effects Results

Hypothesis	Path	β	t-value	p-value	95% CI	Decision
H1	ESGI → FINP	0.234*	2.789	0.005	[0.071, 0.398]	Supported
H2	RISP → FINP	-0.198*	2.456	0.014	[-0.356, -0.041]	Supported

H3	SOID → FINP	0.156*	1.987	0.047	[0.003, 0.309]	Supported
H4	INPR → FINP	0.123	1.634	0.102	[-0.025, 0.271]	Not Supported
H5	ESGI → RISP	-0.289**	3.567	0.000	[-0.447, -0.131]	Supported
H6	SOID → ESGI	0.387**	4.823	0.000	[0.229, 0.544]	Supported

Note: * p < 0.05, ** p < 0.01

The structural model explained substantial variance in the endogenous constructs, with R^2 values of 0.284 for financial performance, 0.198 for ESG integration, and 0.083 for risk perception. These results indicate that the model accounts for 28.4% of variance in financial performance outcomes, representing a medium effect size according to Cohen's (1988) guidelines.

Table 4: Predictive Relevance Assessment

Construct	R^2	Q^2	f^2 Effect Sizes
Financial Performance	0.284	0.167	
ESG Integration	0.198	0.118	
Risk Perception	0.083	0.051	

Note: f^2 values: 0.02 = small, 0.15 = medium, 0.35 = large

Predictive relevance assessment through Stone-Geisser Q^2 values revealed positive results for all endogenous constructs, indicating the model's predictive validity. The Q^2 values ranged from 0.051 to 0.167, all exceeding zero and supporting the model's predictive relevance.

Effect size calculations using Cohen's f^2 metric revealed that social identity exerted the largest effect on ESG integration (f^2 = 0.176), representing a medium effect size. ESG integration demonstrated a small to medium effect on financial performance (f^2 = 0.089), whilst risk perception showed a small effect (f^2 = 0.063).

Table 5: Specific Indirect Effects

Path	β	t-value	p-value	95% CI
SOID → ESGI → FINP	0.091*	2.134	0.033	[0.008, 0.174]
SOID → ESGI → RISP → FINP	0.022	1.567	0.117	[-0.005, 0.049]
ESGI → RISP → FINP	0.057*	1.998	0.046	[0.001, 0.113]

Note: * p < 0.05

Mediation analysis revealed significant indirect effects through several pathways. Social identity influenced financial performance indirectly through ESG integration (β = 0.091, p = 0.033), indicating partial mediation. ESG integration also demonstrated an indirect effect on financial performance through risk perception (β = 0.057, p = 0.046), suggesting that ESG practices influence performance partly through risk mitigation mechanisms.

4.3. Supplementary Analyses

Multigroup analysis examined heterogeneity across key investor segments, revealing significant differences in path coefficients between foreign and domestic institutional investors. Foreign investors demonstrated stronger relationships between ESG integration and financial performance (β = 0.312 vs. β = 0.187, p = 0.032), suggesting greater capacity to realise ESG-related benefits.

Table 6: Multigroup Analysis Results

Path	Foreign Investors	Domestic Investors	Difference	p-value
ESGI → FINP	0.312**	0.187*	0.125	0.032
RISP → FINP	-0.234*	-0.156	-0.078	0.156
SOID → FINP	0.198*	0.123	0.075	0.089
SOID → ESGI	0.445**	0.334**	0.111	0.067

Note: * p < 0.05, ** p < 0.01

Fuzzy-set qualitative comparative analysis (fsQCA) identified multiple configurational pathways to high financial performance, revealing complex interactions among the predictor variables. The analysis generated three primary solution paths with consistency scores exceeding 0.85, indicating robust configurational relationships.

Table 7: fsQCA Results - Pathways to High Financial Performance

Configuration	Raw Coverage	Unique Coverage	Consistency
ESGI * SOID * ~RISP	0.234	0.089	0.887
ESGI * INPR * ~RISP	0.198	0.067	0.856
SOID * INPR * ESGI	0.167	0.045	0.834

Note: * = presence, ~ = absence of condition

The fsQCA results indicate that high financial performance can be achieved through different combinations of conditions. The most prominent pathway involves high ESG integration

combined with strong social identity and low risk perception, explaining 23.4% of cases achieving high financial performance with 88.7% consistency.

Simple slope analysis examined moderation effects by plotting relationships at different levels of the moderator variables. The analysis revealed that the positive relationship between ESG integration and financial performance strengthened under conditions of low risk perception and high social identity, supporting the theoretical expectations regarding behavioral moderators.

5. Discussion of Research Results and Conclusions

The empirical findings of this research provide nuanced insights into the ESG-performance nexus within Vietnam's emerging capital market context, revealing complex relationships that extend beyond simple linear associations. The results demonstrate that ESG integration exhibits a positive relationship with financial performance ($\beta = 0.234$, $p = 0.005$), supporting theoretical predictions derived from stakeholder theory regarding the value-creating potential of comprehensive stakeholder management approaches [7, 10].

The magnitude of the ESG-performance relationship, whilst statistically significant, remains moderate, consistent with meta-analytical findings from developed markets that document positive but heterogeneous relationships across different contexts and measurement approaches [1]. This finding suggests that whilst ESG integration contributes to financial performance in Vietnam's context, other factors continue to play dominant roles in determining investment outcomes, reflecting the complex nature of financial markets and the multitude of variables influencing performance.

The mediating role of risk perception provides particularly compelling insights into the mechanisms through which ESG integration influences financial performance. The negative relationship between ESG integration and risk perception ($\beta = -0.289$, $p < 0.001$) indicates that ESG practices serve important risk mitigation functions, consistent with theoretical arguments that environmental, social, and governance considerations help identify and manage systematic risks that traditional financial analysis might overlook [34].

The subsequent negative relationship between risk perception and financial performance ($\beta = -0.198$, $p = 0.014$) supports behavioral finance theories suggesting that perceived risk influences investment decision-making processes and performance outcomes [8]. The indirect effect of ESG integration on financial performance through risk perception ($\beta = 0.057$, $p = 0.046$) provides empirical evidence for the risk mitigation channel through which ESG practices may enhance investment outcomes.

Social identity emerges as a crucial factor influencing both ESG integration and financial performance outcomes. The strong relationship between social identity and ESG integration ($\beta = 0.387$, $p < 0.001$) aligns with social identity theory predictions that individual and group identities influence preferences and decision-making processes [14]. This finding proves particularly relevant for understanding ESG adoption patterns in emerging markets, where social and cultural factors may play prominent roles in shaping investment preferences.

The direct effect of social identity on financial performance ($\beta = 0.156$, $p = 0.047$) suggests that investor characteristics and preferences independently influence performance outcomes, possibly through enhanced motivation, commitment, or analytical focus when investment strategies align with personal values and identity considerations. This finding contributes to the growing literature on values-based investing by providing empirical evidence for performance implications of identity-investment alignment.

Institutional pressures demonstrated a non-significant direct relationship with financial performance ($\beta = 0.123$, $p = 0.102$), suggesting that external pressures alone may not translate into performance benefits without corresponding internal commitment and implementation capabilities. This finding highlights the importance of genuine ESG integration rather than superficial compliance with external expectations, consistent with research distinguishing between substantive and symbolic organisational responses to institutional pressures [33].

The multigroup analysis revealing stronger ESG-performance relationships among foreign investors ($\beta = 0.312$ vs. $\beta = 0.187$) provides important insights into the role of institutional capabilities and market positioning in realising ESG benefits. Foreign institutional investors may possess superior analytical capabilities, longer investment horizons, or greater experience with ESG integration, enabling them to identify and capitalise on ESG-related opportunities more effectively than domestic counterparts.

The fsQCA results identifying multiple configurational pathways to high financial performance underscore the complexity of ESG-performance relationships and the importance of considering interactions among different factors rather than examining isolated effects. The finding that high performance can be achieved through different combinations of ESG integration, social identity, and risk perception levels suggests that investors may pursue various strategies to achieve superior outcomes, reflecting the heterogeneity inherent in investment management approaches.

The practical implications of these findings extend across multiple stakeholder groups. For institutional investors, the results suggest that ESG integration can contribute to financial performance, particularly when implemented authentically and supported by appropriate organisational capabilities and investor characteristics. The risk mitigation benefits of ESG practices provide compelling rationales for adoption, especially in emerging markets where regulatory and operational risks may be elevated.

For policymakers, the findings support initiatives promoting ESG integration whilst highlighting the importance of developing institutional capabilities and frameworks that enable effective implementation rather than merely mandating compliance. The stronger performance relationships among foreign investors suggest opportunities

for knowledge transfer and capacity building to enhance domestic institutional investor capabilities.

The research contributes to the academic literature by providing empirical evidence of ESG-performance relationships in an emerging market context whilst uncovering behavioral mechanisms that influence these relationships. The integration of stakeholder theory and behavioral finance perspectives offers a comprehensive framework for understanding the complex dynamics underlying ESG investment decisions and outcomes.

Several limitations constrain the generalisability of these findings. The cross-sectional design limits causal inferences, whilst the focus on Vietnam may restrict applicability to other emerging market contexts with different institutional frameworks or cultural characteristics. Future research might address these limitations through longitudinal designs and comparative studies across multiple emerging markets.

The measurement challenges associated with ESG performance and financial outcomes represent ongoing concerns in this research domain. Future investigations might benefit from incorporating objective ESG ratings and longer-term performance tracking to complement the survey-based measures employed in this study. Additionally, the behavioral mechanisms identified here warrant further exploration through experimental or quasi-experimental designs that can provide stronger causal evidence.

In conclusion, this research demonstrates that ESG integration exhibits positive relationships with financial performance in Vietnam's emerging capital market context, mediated by risk perception mechanisms and moderated by investor behavioral characteristics. The findings support the business case for ESG investing whilst highlighting the complexity of implementation and the importance of considering behavioral and institutional factors in understanding ESG-performance relationships. These insights contribute to the evolving understanding of sustainable finance in emerging markets and provide strategic guidance for investors, policymakers, and researchers seeking to advance both financial performance and societal outcomes through capital market mechanisms.

6. ACKNOWLEDGMENTS

I would like to express my sincere gratitude to Dr. Hoang Vu Hiep for his invaluable guidance and inspiration throughout this research. His expertise, insights, and unwavering support have been instrumental in shaping the direction and quality of this study. I am deeply appreciative of his generosity in sharing his time, knowledge, and network, which have greatly contributed to the success of this research. His mentorship and commitment to academic excellence have not only enriched the quality of this work but have also had a profound impact on my personal and professional growth.

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