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# THE ESG–PERFORMANCE NEXUS IN EMERGING MARKETS: UNPACKING INVESTOR BEHAVIOURAL PATTERNS AND FINANCIAL RETURN PARADOXES IN VIETNAM'S CAPITAL MARKETS

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***Abstract***

*The incorporation of Environmental, Social, and Governance (ESG) criteria into investment decision-making reflects a transformative shift in global financial markets, especially within emerging economies such as Vietnam where institutional and regulatory structures are still evolving. This study explores the intricate link between ESG-oriented investment strategies and financial performance in Vietnam's dynamic capital markets, with a particular emphasis on the behavioural factors shaping institutional investors' decisions. Using a quantitative research design and structural equation modelling via partial least squares (PLS-SEM), data were collected from 387 institutional investors actively engaged in Vietnam's financial ecosystem. The findings reveal a multifaceted ESG–performance relationship influenced by behavioural attributes such as risk perception, social identity, and institutional pressures. Results indicate that while ESG-aligned investments may yield slightly lower short-term returns, they offer superior risk-adjusted outcomes over longer horizons. Moreover, the analysis highlights significant differences between domestic and foreign investors, with the latter demonstrating stronger commitment to ESG integration. This research adds to the growing body of literature on sustainable finance in developing markets by evidencing the ESG–performance paradox and its behavioural underpinnings. The insights generated provide practical implications for policymakers aiming to strengthen Vietnam's sustainable finance infrastructure and support the broader development of its capital markets.*

**Keywords:** ESG investment, behavioural finance, emerging markets, institutional investors, Vietnam capital markets

## Introduction

The global financial landscape has experienced profound transformation over the past decade, driven by the increasing integration of Environmental, Social, and Governance (ESG) considerations into investment decision-making processes. This shift reflects more than a passing trend; it signifies a fundamental reconceptualisation of value creation and risk assessment within contemporary capital markets (Friede et al., 2015; Clark et al., 2015). The incorporation of sustainability factors into investment frameworks has gained momentum following international climate commitments and the growing recognition of systemic risks associated with environmental degradation and social inequality (Amel-Zadeh & Serafeim, 2018).

Emerging markets provide a particularly compelling context for examining ESG investment dynamics due to their rapid economic development, evolving regulatory frameworks, and increasing integration with global capital markets (World Bank, 2017). Vietnam exemplifies this phenomenon, having undergone a remarkable economic transformation since implementing market-oriented reforms in the late 1980s. The country has consistently achieved GDP growth rates exceeding 6% annually while simultaneously confronting significant environmental and social challenges linked to rapid industrialisation (World Bank, 2017; State Securities Commission of Vietnam, 2017).

Vietnam's capital markets have developed significantly, with market capitalisation growing from approximately USD 9 billion in 2005 to over USD 150 billion by 2017. This expansion coincides with increased participation from foreign institutional investors and a greater sophistication of domestic financial institutions (State Securities Commission of Vietnam, 2017). At the same time, heightened awareness of sustainability issues has emerged, driven by government initiatives promoting green growth strategies and international investor expectations regarding ESG compliance (Le & Nguyen, 2017).

Despite the global prominence of ESG investing, empirical evidence regarding its financial implications remains inconclusive, particularly in emerging markets. Previous studies have produced conflicting findings about the relationship between ESG performance and financial returns, with some reporting positive correlations while others indicate neutral or negative associations (Margolis et al., 2009; Orlitzky et al., 2003). This ambiguity becomes more pronounced in emerging markets, where institutional frameworks, market efficiency, and investor sophistication differ from those of developed economies (Renneboog et al., 2008).

The theoretical foundation for ESG investing integrates multiple perspectives, ranging from stakeholder theory's emphasis on broader value creation (Freeman, 1984; Donaldson & Preston, 1995; Mitchell et al., 1997) to behavioural finance insights into investor decision-making under uncertainty (Kahneman & Tversky, 1979; Tversky & Kahneman, 1992). The integration of these theoretical frameworks offers a comprehensive lens through which to analyse the complex dynamics underlying ESG investment decisions and their financial consequences (Barnett & Salomon, 2006; Riedl & Smeets, 2017).

This research addresses a critical gap by examining the ESG–performance nexus within Vietnam's emerging capital market context, with particular emphasis on the behavioural mechanisms influencing institutional investor decision-making processes. Beyond its empirical contribution, the study provides strategic insights for policymakers, financial institutions, and international investors seeking to understand the evolving dynamics of sustainable finance in emerging economies (Gupta, 2017; Hong & Kacperczyk, 2009). Employing a quantitative methodology using partial least squares structural equation modeling (PLS-SEM), the research investigates the relationships between ESG investment strategies, investor behavioural characteristics, and financial performance outcomes (Hair et al., 2017; Chin, 1998). Drawing

on primary data from institutional investors operating within Vietnam's financial ecosystem, the study delivers unprecedented insights into the motivations, constraints, and outcomes associated with ESG investment practices in an emerging market context (Henriksson et al., 2019; McCahery et al., 2016).

## Literature Review

### 2.1 Foundational Theories

#### 2.1.1 Stakeholder Theory and ESG Integration

Stakeholder theory, originally advanced by Freeman (1984), challenges the dominance of the shareholder-primacy paradigm by emphasising that organisations must consider the interests of all parties affected by their operations. This perspective underpins much of the contemporary discourse on ESG integration, suggesting that firms which proactively address environmental, social and governance concerns can enhance long-term value creation through stronger stakeholder relationships and reduced operational risks (Donaldson & Preston, 1995).

Within investment decision-making, stakeholder theory posits that ESG-oriented strategies can generate measurable financial benefits. For instance, environmental initiatives reduce regulatory exposure and operational costs while strengthening brand reputation and customer loyalty. Similarly, socially focused programmes can boost employee productivity and community relations, while sound governance structures enhance efficiency and lower agency costs (Hillman & Keim, 2001). These channels collectively frame ESG integration not as a form of philanthropy but as an advanced risk management and value creation strategy.

Subsequent scholarship has refined stakeholder theory to reflect the dynamic nature of stakeholder salience, noting that stakeholder power and legitimacy evolve alongside shifting social, environmental and regulatory contexts (Mitchell et al., 1997). This dynamic lens is especially salient in emerging markets, where institutional arrangements, cultural norms and regulatory settings diverge considerably from those of developed economies.

From an investment-performance standpoint, stakeholder theory suggests ESG integration can deliver competitive advantages via enhanced stakeholder management, operational efficiency and lower exposure to environmental and social liabilities. However, these benefits are contingent on investors' capacity to evaluate and price ESG-related risks and opportunities accurately, which may vary significantly across markets with differing institutional maturity (Kotsantonis et al., 2016).

#### 2.1.2 Behavioural Finance Theory and Investment Decision-Making

Behavioural finance theory departs from the efficient market hypothesis by recognising that cognitive biases, emotions and social influences shape investor behaviour rather than purely rational calculations (Barberis & Thaler, 2003). This framework offers valuable insights into ESG investment behaviour, given the inherent complexity and uncertainty of evaluating long-term sustainability outcomes.

Prospect theory, a cornerstone of behavioural finance, maintains that investors exhibit asymmetric responses to gains and losses, with loss aversion heavily influencing risk preferences and investment choices (Kahneman & Tversky, 1979). Applied to ESG, this implies that some investors interpret ESG integration as risk mitigation while others perceive it as constraining potential returns.

Social identity theory further illuminates ESG investment dynamics by showing how group affiliations and professional, cultural or generational identities influence preferences and decision-making (Tajfel & Turner, 1986). This can result in heterogeneous reactions to ESG opportunities across investor segments.

The theory of planned behaviour adds another dimension by identifying attitudes, subjective norms and perceived behavioural control as drivers of intentions and actions (Ajzen, 1991). In ESG investing, this indicates that investor choices stem not only from financial considerations but also from social expectations, personal values and perceived feasibility of implementation.

Finally, herding behaviour is highly relevant to ESG adoption, particularly in emerging markets characterised by greater information asymmetry and weaker institutional frameworks. In such contexts, investors are more prone to mimic the behaviour of their peers rather than rely on independent analysis, reinforcing collective movements in or out of ESG strategies (Bikhchandani et al., 1992).

**Review of Empirical and Relevant Studies**

The empirical evidence on the ESG–performance relationship remains mixed, reflecting the complexity of operationalising ESG constructs and evaluating financial outcomes across different market contexts and timeframes. Meta-analytical studies have attempted to synthesise these findings and generally conclude that ESG practices tend to exhibit neutral-to-positive relationships with financial performance, though substantial heterogeneity persists across industries and geographic contexts (Friede et al., 2015; Margolis & Walsh, 2003).

One of the most comprehensive meta-analyses by Friede et al. (2015) examined over 2,000 empirical studies and reported that approximately 90% found non-negative associations between ESG factors and financial performance, with the majority identifying positive relationships. However, the authors also highlighted significant variation in findings and underscored the importance of contextual factors such as regulatory environments, investor profiles and market maturity in shaping the strength and direction of the relationship.

Evidence from emerging markets reveals further layers of complexity. Cheng et al. (2014) analysed corporate social responsibility practices among Chinese firms and found positive associations with financial performance, although relationships varied markedly by sector and firm characteristics. Similarly, Gupta (2018) examined ESG performance among Indian companies, documenting positive correlations with profitability metrics but highlighting the moderating role of institutional factors in determining the strength of these relationships.

Industry-focused studies provide additional insights. For instance, Hong and Kacperczyk (2009) examined "sin stocks" (tobacco, alcohol, and gaming industries) and found that such firms often outperform due to lower institutional ownership and reduced analyst coverage. This indicates that ESG-related screening can influence capital allocation, pricing mechanisms and ultimately financial performance outcomes in unexpected ways.

Institutional investors also play a pivotal role in shaping ESG adoption and performance. McCahery et al. (2016) conducted a global survey of institutional investors and found that ESG considerations are increasingly incorporated into investment decisions. Nonetheless, implementation practices vary significantly across investor types and geographies, with key barriers including measurement inconsistencies, performance concerns and regulatory constraints.

Behavioural factors have received comparatively less empirical attention, particularly in emerging markets. Riedl and Smeets (2017) studied socially responsible investment preferences among retail investors and found that social preferences can significantly influence investment decisions, even when associated with lower financial returns. However, their analysis focused on developed markets, leaving important gaps regarding institutional investor behaviour in countries like Vietnam.

Research specific to Vietnam remains limited despite the country's rapid economic development and the growing sophistication of its capital markets. Le and Nguyen (2020) explored corporate governance practices among Vietnamese listed firms and found improvements over time but noted persistent implementation challenges. Yet their focus remained at the firm level rather than investor behaviour or ESG-performance outcomes.

The measurement of ESG performance continues to pose challenges across the empirical literature. Divergent methodologies among rating agencies lead to substantial discrepancies in ESG scores for the same firms, which complicates empirical analyses and likely contributes to the mixed findings regarding ESG–performance relationships (Berg et al., 2019).

### 2.3 Proposed Research Model

Drawing on the theoretical foundations and empirical evidence reviewed above, this study proposes an integrated model examining the relationships between ESG investment strategies, investor behavioural characteristics and financial performance outcomes within Vietnam's emerging capital markets. The model combines insights from stakeholder theory and behavioural finance to provide a nuanced framework for understanding how ESG considerations shape investment decision-making and performance.

Financial performance serves as the dependent variable and is conceptualised as a multidimensional construct encompassing both absolute returns and risk-adjusted performance metrics. This dual approach reflects recognition that ESG integration may influence not only return levels but also volatility and downside risk characteristics over different time horizons (Hoepner et al., 2016).

ESG integration represents the primary independent variable, operationalised through a comprehensive assessment of environmental, social and governance factors embedded in investment decision-making. This construct includes both formal ESG screening processes and informal consideration of sustainability metrics in investment analysis, acknowledging that ESG integration exists on a continuum rather than as a binary choice (Eccles et al., 2014).

Investor behavioural characteristics function as key moderating variables, consistent with behavioural finance theory which highlights the influence of cognitive biases, social factors and individual preferences. Risk perception is particularly critical, as subjective assessments of ESG-related risks and opportunities may diverge from objective measures and in turn shape investment choices. Social identity similarly emerges as a key moderator, capturing the extent to which investors' professional, cultural or generational identities influence their ESG preferences and behaviours (Tajfel & Turner, 1986). This dimension is especially relevant in Vietnam, where rapid social and economic transformation creates heterogeneous perspectives on sustainability among different investor segments.

Institutional pressures also moderate ESG investment adoption, encompassing both formal regulatory requirements and informal social expectations (Dimaggio & Powell, 1983). By including institutional pressures, the model recognises the interplay between policy, client mandates and industry norms in shaping ESG strategies.

Control variables are incorporated to ensure robust analysis of ESG–performance relationships. Firm size (measured by assets under management) controls for scale effects, while investment horizon captures the temporal aspect of strategies, acknowledging that ESG benefits are often realised over longer periods. Geographic origin differentiates between foreign and domestic institutional investors, recognising that international actors may bring different sustainability expectations and analytical frameworks than their domestic counterparts (Clark et al., 2015).

Partial least squares structural equation modelling (PLS-SEM) is employed as the primary analytical approach, chosen for its ability to handle complex models with multiple constructs and interrelations while accommodating relatively small sample sizes common in emerging-market research (Hair et al., 2019). This makes it particularly suitable for exploratory studies where theoretical relationships may diverge from established patterns in developed economies.

## Research Methodology

### 3.1 Research Design

This study adopts a quantitative, cross-sectional survey design to investigate the relationships between ESG investment strategies, investor behavioural characteristics and financial performance outcomes within Vietnam's institutional investment landscape. The positivist philosophical orientation of the research reflects its aim to establish empirically testable relationships between measurable constructs, while also recognising the inherent complexity of investment decision-making processes (Hair et al., 2019).

The choice of a cross-sectional design reflects both pragmatic and conceptual considerations. Given the relatively recent emergence of ESG investing in Vietnam, longitudinal data covering extended time periods are limited, constraining the feasibility of time-series analyses. The cross-sectional approach therefore enables a comprehensive assessment of current ESG practices, providing foundational insights for future longitudinal research.

Multiple analytical techniques are embedded in the research design to ensure robust evaluation of the hypothesised relationships. Partial least squares structural equation modelling (PLS-SEM) serves as the primary analytical tool to explore the complex interrelations between ESG integration, behavioural variables and financial performance. Supplementary techniques include fuzzy-set qualitative comparative analysis (fsQCA) to identify configurational effects, as well as multigroup analysis to detect heterogeneity across investor segments.

### 3.2 Data Collection

Data were collected through a structured online questionnaire distributed to institutional investors active in Vietnam's capital markets, including asset management companies, insurance firms, pension funds and foreign institutional investors with substantial exposure to the Vietnamese market. The sampling frame was built from databases maintained by the State Securities Commission of Vietnam, the Vietnam Association of Financial Investors and international directories of institutional investors focused on emerging markets.

The questionnaire design was informed by established scales from ESG and behavioural finance research, adapted to Vietnam's institutional and cultural environment. Draft versions underwent expert review by academic researchers and industry practitioners familiar with Vietnam's financial sector. Pilot testing with a small group of institutional investors was conducted to identify comprehension or response issues, ensuring content validity and clarity.

Data collection took place from January to August 2017, enabling sufficient outreach to targeted respondents under relatively stable market and regulatory conditions. Multiple distribution strategies — including direct email, professional network outreach, and engagement at industry conferences — were used to maximise response rates.

The final sample consisted of 387 institutional investors, representing approximately 65% of the target population, which provided adequate statistical power for the planned analyses. Non-response bias was assessed by comparing early and late respondents on key demographic and organisational characteristics, revealing no significant differences that could compromise the generalisability of results.

### 3.3 Measurement and Validation

Construct operationalisation followed established procedures for behavioural research (Fornell & Larcker, 1981). ESG integration was measured using a 15-item scale capturing the extent to which environmental, social and governance factors were embedded into investment screening, analysis and decision-making processes. These items were adapted from sustainable investing

literature (Eccles et al., 2014) while reflecting Vietnam-specific sustainability concerns identified during preliminary interviews with local professionals.

Financial performance was measured using both subjective and objective indicators to capture the multidimensional nature of outcomes. Subjective measures included respondents' evaluations of portfolio performance relative to benchmarks and peer groups over multiple timeframes. Objective measures incorporated reported returns and risk metrics where available, with subjective indicators serving as the primary data source when disclosures were limited.

Behavioural constructs were measured using validated scales from behavioural finance and organisational psychology research. Risk perception items were adapted from prior studies on investor risk attitudes (Weber et al., 2002) but tailored to ESG-specific contexts. Social identity measurement incorporated scales capturing professional identity, cultural values and generational characteristics, recognising their potential influence on ESG preferences. Institutional pressures were operationalised through items measuring regulatory mandates, client expectations and industry norms regarding ESG adoption.

Construct validity was examined through expert review, average variance extracted (AVE) calculations, and discriminant validity tests using the Fornell-Larcker criterion and heterotrait-monotrait (HTMT) ratios (Henseler et al., 2015). Internal consistency was evaluated using both Cronbach's alpha and composite reliability indices to ensure robust measurement properties.

### 3.4 Analytical Procedure

The analysis began with descriptive statistics of the sample and preliminary assessment of variable distributions and correlations. Exploratory factor analysis (EFA) using principal component extraction and varimax rotation was conducted to evaluate the underlying factor structure of constructs. Confirmatory factor analysis (CFA) was subsequently performed to validate the measurement model and assess convergent and discriminant validity.

PLS-SEM, implemented via SmartPLS 4, was employed as the primary analytical method. This approach was selected for its suitability to exploratory research in emerging markets, its flexibility in handling complex models with multiple constructs, and its ability to operate under less stringent distributional assumptions compared to covariance-based SEM (Hair et al., 2019).

The PLS-SEM process involved evaluating the outer model (indicator reliability, internal consistency, convergent validity and discriminant validity) and the inner model (path coefficients, $R^2$ values, and predictive relevance using Stone-Geisser's $Q^2$). Significance of path coefficients was tested via bootstrapping with 5,000 resamples.

Supplementary analyses included fsQCA to identify equifinal pathways to high ESG performance, complementing the PLS-SEM by uncovering how different combinations of conditions could yield similar outcomes. Multigroup analysis further examined heterogeneity across investor segments, comparing foreign versus domestic investors, large versus small

investment firms, and differing investment mandates. Both parametric and non-parametric tests were employed to identify significant differences in structural relationships 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; offdiagonal elements represent correlations

Discriminant validity assessment utilised both the FornellLarcker 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 |

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| | | | | | | |
|---|---|---|---|---|---|---|
| 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, 0.21] | 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 longerterm 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

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