

## ESG Materiality Issues and Stock Returns: Evidence from Thailand

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### Abstract

This study investigates the relationship between Environmental, Social, and Governance (ESG) materiality issues and stock returns in the Stock Exchange of Thailand (SET). Leveraging data from 91 listed companies between 2018 and 2021, the research examines whether firms focusing on material ESG issues demonstrate superior performance. Using an innovative SASB, MSCI and MSCI-SASB materiality framework, the study differentiates between material and immaterial ESG issues. By constructing portfolios based on ESG materiality scores and evaluating their performance through a comprehensive five-factor model, the research provides nuanced insights into ESG investing in an emerging market context. The study addresses a critical gap in the existing literature by exploring ESG materiality's impact in the Thai market, where unique market characteristics may influence the relationship between sustainability factors and financial performance. Additionally, the research analyses potential differences in stock returns between firms listed on the Refinitiv ESG rating and those not included in the rating. This research contributes to the understanding of ESG materiality in emerging markets and offers valuable implications for investors seeking to integrate ESG considerations into their investment strategies. The findings provide a sophisticated approach to evaluating the financial significance of sustainability factors across different industry contexts.

**Keywords:** ESG Materiality, Stock Returns, Emerging Markets, Thailand, Sustainability

### Introduction

In recent years, Environmental, Social, and Governance (ESG) investing has transformed from a niche strategy to a mainstream investment approach embraced by financial professionals worldwide. As global awareness of sustainability challenges intensifies, investors, asset owners, and governments increasingly integrate ESG factors into their investment decisions, seeking both financial returns and positive societal impact. The COVID-19 pandemic further highlighted the resilience of ESG-focused investments, with Morgan Stanley Capital International (MSCI) research demonstrating that during the crisis peak, their ESG indexes significantly outperformed conventional benchmarks like the MSCI ACWI Index. Despite this growing interest, a fundamental debate persists about ESG's financial impact. Critics argue

that ESG implementation potentially destroys shareholder value by increasing operational costs without enhancing profitability (Friedman, 2007; Barnett & Salomon, 2012), while proponents suggest that thoughtful ESG integration offers tangible benefits, including lower capital costs, reduced risks, and enhanced firm value (Johnson, 2020; Sassen et al., 2016). This debate has driven researchers to examine what specifically determines when ESG factors create financial value. At the heart of this question lies the concept of "ESG materiality", the recognition that not all ESG issues affect all companies equally. Material ESG issues are those that substantially impact a company's financial performance based on its specific industry, business model, and operational context. This concept, borrowed from accounting standards, has emerged as a crucial differentiator in understanding ESG's financial implications. Research by Khan et al. (2016) provided groundbreaking evidence that companies performing well on material ESG issues significantly outperform those with poor performance on these same issues, while performance on immaterial issues shows negligible financial impact.

However, a significant research gap exists in our understanding of ESG materiality in emerging markets. While studies by Kotsantonis & Bufalari (2019) and Van Heijningen (2019) have corroborated the importance of materiality in developed markets, emerging economies like Thailand present unique characteristics that may alter this relationship. These markets typically feature lower levels of investor protection (Porta et al., 1998), less stringent environmental and social regulations, reduced corporate transparency, and less efficient market structures all potentially influencing how ESG materiality translates to financial outcomes. Furthermore, the role of ESG ratings in this relationship remains underexplored. Major ratings providers like Refinitiv assess companies based on their ESG performance, but whether these ratings adequately capture material issues and whether rated firms demonstrate different materiality-return relationships than unrated firms represent a significant knowledge gap, particularly in emerging market contexts.

This study addresses these critical gaps by examining whether ESG materiality issues affect stock returns differently for firms listed on the Refinitiv ESG rating compared to those not included in the rating within Thailand's stock market. By focusing on this important emerging economy in the Asia-Pacific region and adapting methodologies from seminal studies (Khan et al., 2016; Madison & Schiehl, 2021; Van Heijningen, 2019), this research provides novel insights into how ESG materiality influences investment outcomes across diverse market structures. These findings carry significant implications for investors seeking to optimize their ESG integration strategies in emerging markets and for companies working to enhance their sustainability performance in ways that create genuine financial value.

### **Literature Review**

Currently, three types of ESG are in use around the world. Each differs primarily in its method of handling the tax on investment (capital) expenditures. The most common method, the consumption type, permits businesses to deduct immediately the full value of the tax paid on capital purchases. A second approach, the national income type, allows only a gradual deduction of the ESG paid on capital purchases over several years, much like depreciation.

#### *ESG and Financial Performance*

The relationship between ESG performance and financial performance has been extensively studied with mixed results. Friede et al. (2015) conducted a meta-analysis of over 2,000

studies from the 1970s to 2014 and found that approximately 90% showed a non-negative relationship between ESG and corporate financial performance, with most indicating positive relationship. Positive associations have been found in various contexts. Madhavan et al. (2021) discovered a link between ESG factors, style factors, fund alphas, and active returns when studying U.S. equity mutual funds. Ashwin Kumar et al. (2016) found that ESG factors can reduce stock volatility, thereby improving risk-adjusted returns. In the Asia-Pacific region, Budsaratragoon & Jitmaneeroj (2021) observed that investors are willing to pay more for companies with high ESG ratings, particularly when economic performance is poor.

### *ESG Materiality*

ESG materiality issues have received limited attention, especially in developing countries, despite their potential impact on financial performance. The concept of materiality originated from financial reporting standards encompassing both qualitative and quantitative perspectives (Eccles et al., 2012), with material information defined by FASB as information that could influence user decisions if misstated or omitted. In the ESG context, materiality refers to issues significant to both stakeholders and business operations, with Robeco suggesting these issues can significantly impact firm value drivers and potentially generate abnormal returns (Eriandani & Winarno, 2024). Khan et al. (2016) pioneered research on ESG materiality's effect on financial performance in the U.S., finding that companies with superior performance on material ESG issues outperform those with poor performance on these issues, while performance on immaterial issues showed no significant impact. This finding was corroborated by Kotsantonis & Bufalari (2019), who discovered that banks with high ESG material scores exhibited better risk-adjusted returns compared to those with low scores. Similarly, Van Heijningen (2019) demonstrated that only materiality scores enhanced financial performance predictions relative to total ESG or immateriality scores, with effects varying across industries. These findings suggest that ESG investments should focus strategically on material factors, as they have significant implications for company performance and shareholder value, though research in emerging markets like Thailand remains notably scarce.

### *ESG in Emerging Markets*

While most ESG materiality research has focused on developed markets, emerging markets present unique challenges and opportunities for ESG integration. Emerging markets typically have lower levels of investor legal protection (Porta et al., 1998), weaker environmental and social regulations, less transparent corporate practices, and less efficient markets. Despite these challenges, ESG can be particularly valuable in emerging markets for risk management. Sherwood & Pollard (2018) suggest that ESG investment strategies can reduce market risks in emerging markets, providing opportunities for risk diversification and improved risk-adjusted returns. This study contributes to the literature by examining ESG materiality in Thailand, an important emerging market in the Asia-Pacific region. By adapting methodologies from previous studies (Khan et al., 2016; Madison & Schiehl, 2021; Van Heijningen, 2019) to the Thai context, we provide insights into how ESG materiality affects stock performance in an emerging market setting.

### *Research Gap*

The research gap centers on the limited understanding of ESG materiality's impact on emerging markets. While research has established that focusing on material ESG issues those that significantly affect financial performance can lead to superior returns in developed

markets, this relationship remains largely unexplored in emerging economies like Thailand. These markets present distinctive challenges including weaker regulations, less transparent corporate practices, and less efficient market structures that may influence how ESG materiality affects stock performance. Additionally, there is insufficient knowledge about whether the impact of ESG materiality differs between companies included in established ESG ratings systems like Refinitiv and those excluded from such ratings. This study addresses these knowledge gaps by examining the relationship between ESG materiality and stock returns in Thailand's market environment, contributing to a more comprehensive understanding of sustainable investing across different economic contexts. This study aims to fill this gap by answering two main research questions:

*"Do ESG materiality issues affect stock returns differently for firms listed on the Refinitiv ESG rating compared to those not on the list?"*

## **Methodology**

### *Research Design Overview*

This study investigates the impact of Environmental, Social, and Governance (ESG) materiality on portfolio performance, employing a comprehensive methodological approach building on recent sustainable finance research (Madison & Schiehl, 2021; Khan et al., 2016; Shanaev & Ghimire, 2022). By integrating multiple ESG materiality frameworks, we address critical gaps in understanding how material and immaterial ESG issues influence financial performance.

## **Data Sources and Sample Selection**

### *Sample Characteristics*

The study focused on companies listed on the Stock Exchange of Thailand (SET) during the period from 2018 to 2021, with an initial sample of 91 listed firms. Rigorous sample selection criteria were applied to ensure data quality and comparability, specifically excluding funds, Real Estate Investment Trusts (REITs), firms with incomplete ESG or financial data, and companies that could not be reliably classified under standard industry frameworks. This careful sample refinement process ensured a robust and representative dataset for analyzing the relationship between ESG materiality and portfolio performance, while maintaining high standards of data integrity and analytical precision.

### *Data Sources*

The research leveraged a comprehensive set of data sources to ensure robust ESG analysis and materiality assessment. Primary ESG reporting data was collected from two key Thai regulatory reporting frameworks: the legacy 56-1 Report and the newer 56-1 One Report (implemented in 2020), supplemented by the Refinitiv ESG Rating Database for additional insights. Materiality guidance was derived from two internationally recognized frameworks: the Sustainability Accounting Standards Board (SASB) Materiality Map and the Morgan Stanley Capital Investment (MSCI) ESG Industry Materiality Map. This multi-source approach enabled a nuanced and credible evaluation of ESG issues, combining local reporting standards with global sustainability assessment methodologies to provide a comprehensive analysis of ESG materiality in the Thai stock market.

## ESG Materiality Classification Methodology

### *SASB Materiality Approach*

The SASB Materiality Approach employed a rigorous methodology for classifying and evaluating ESG issues, utilizing a systematic mapping process that aligns with industry-specific materiality standards. This approach implemented a binary classification system, categorizing ESG issues as either material or immaterial based on their potential financial impact. The methodology employed a sophisticated weighted scoring mechanism across Environmental, Social, and Governance (ESG) dimensions, ensuring a nuanced assessment of sustainability factors. Mathematically represented:

$$\text{SASB Total Material}_{i,t} = W_E (\sum \text{SMATE}_{i,t} / N_{\text{MATE}}) + W_S (\sum \text{SMATS}_{i,t} / N_{\text{MATS}}) + W_G (\sum \text{SMATG}_{i,t} / N_{\text{MATG}})$$

The approach allows for differential weighting of ESG components. This method enables a comprehensive and precise evaluation of ESG materiality, accounting for the unique characteristics of each dimension and providing a robust framework for understanding the potential financial implications of sustainability factors.

### *MSCI Materiality Approach*

The MSCI Materiality Approach leverages the MSCI ESG Industry Materiality Map to provide a sophisticated, industry-specific assessment of ESG factors. This methodology distinguishes itself through a nuanced weighting system that applies tailored factor weights specific to each industry, recognizing the unique sustainability challenges across different sectors. A key innovative feature is the approach's handling of excluded issues through proportional weight redistribution, ensuring that the overall ESG assessment remains comprehensive and balanced. By dynamically reallocating weights when certain ESG issues are omitted, the method maintains the integrity of the materiality assessment while adapting to the specific characteristics of each industry. This approach allows for a more refined and contextualized evaluation of ESG materiality, moving beyond a one-size-fits-all framework to provide insights that are sensitive to the distinct sustainability dynamics of different industrial contexts.

### *Integrated MSCI-SASB Approach*

The Integrated MSCI-SASB Approach represents a methodological innovation that synthesizes two prominent ESG assessment frameworks by systematically reconciling 28 MSCI ESG key issues with 26 SASB general issues. This approach tackles the complex challenge of definitional variations, particularly in governance factors, by developing a nuanced and comprehensive methodology for ESG issue assessment. By carefully mapping and aligning the distinct taxonomies of MSCI and SASB, the method creates a more robust and holistic framework for evaluating sustainability factors. The approach goes beyond simple data aggregation, employing a sophisticated cross-referencing technique that captures the unique characteristics of each framework while maintaining analytical consistency. This integrated methodology provides a more refined and comprehensive understanding of ESG materiality, allowing for a more precise evaluation of sustainability issues across different industrial contexts.

## Portfolio Construction Methodology

### *Residual-Based Portfolio Formation*

Drawing from Khan et al. (2016) and Van Heijningen (2019), the study employs a sophisticated portfolio construction approach:

$$\text{Total Material}_{\{i,t\}} = \alpha + \alpha_1 \text{Size}_{\{it\}} + \alpha_2 \text{MTB}_{\{it\}} + \alpha_3 \text{ROA}_{\{it\}} + \alpha_4 \text{Lev}_{\{it\}} + f_s + \varepsilon_{\{it\}}$$

Portfolio Creation Criteria:

- Ranking based on regression residuals
- Selection of top and bottom quintiles
- Separate portfolios for material and immaterial ESG issues
- Dual weighting approaches: value-weighted and equal-weighted

## Performance Evaluation

### *Abnormal Return Estimation*

Utilizing the extended Fama-French model (Carhart, 1997; Amihud, 2002), the study assessed portfolio performance using the Performance Model:

$$\text{Excess return}_{\{p,t\}} = a_p + m_p \text{MKT}_t + s_p \text{SMB}_t + h_p \text{HML}_t + m_p \text{WML}_t + l_p \text{IML}_t + \varepsilon_{\{p,t\}}$$

Factors Incorporated: Market Risk Premium (MKT), Size Factor (SMB), Value Factor (HML), Momentum Factor (WML), Liquidity Factor (IML)

### *Statistical Considerations*

Our analysis incorporates a suite of control variables and analytical techniques to ensure robust results. The control variables include market capitalization to account for size effects, market-to-book ratio to control for growth versus value characteristics, return on assets as a profitability measure, and financial leverage to address capital structure variations. These controls are complemented by sophisticated analytical techniques: sector fixed effects regression captures industry-specific variations that might otherwise confound results; multi-factor performance attribution isolates the specific impact of ESG materiality while controlling for well-established risk factors; and robust standard error estimation addresses potential heteroscedasticity and autocorrelation in the data, thereby ensuring the statistical validity of our findings across different market conditions and time periods.

## Expected Results

Based on previous research, we expect the following results:

1. Firms focusing on ESG materiality issues will have higher stock returns than those that do not focus on these issues (Khan et al., 2016; Van Heijningen, 2019).
2. Companies listed on the Refinitiv ESG rating will show stronger relationships between ESG materiality and stock returns compared to non-listed companies, as ESG ratings highlight firms with better ESG practices (Berg et al., 2021; Engelhardt et al., 2021).
3. The MSCI-SASB materiality framework will provide better discrimination between material and immaterial ESG issues, leading to more pronounced return differences between portfolios based on this framework compared to using only SASB or MSCI frameworks.
4. Portfolios formed based on material ESG issues will generate positive abnormal returns, while portfolios based on immaterial issues may not show significant abnormal returns.

5. The relationship between ESG materiality and stock returns may vary across sectors, with more pronounced effects in sectors where ESG issues are particularly salient.

### **Conclusion and Implications**

This study contributes to the growing literature on ESG investing by examining the impact of ESG materiality on stock returns in Thailand, an important emerging market. By differentiating between material and immaterial ESG issues using multiple frameworks, our research provides insights into how investors can more effectively incorporate ESG considerations into their investment strategies.

Our findings have implications for investors, companies, and policymakers. For investors, understanding which ESG issues are financially material can enhance investment strategies and potentially lead to improved returns. For companies, focusing on material ESG issues may be more beneficial than broad ESG implementation. For policymakers, recognizing the financial relevance of certain ESG issues can inform more effective sustainability regulations. This research also addresses the gap in ESG materiality studies in emerging markets, where different market structures, regulatory environments, and corporate practices may influence the relationship between ESG and financial performance. The customized methodology for Thai listed stocks provides a template for similar analyses in other emerging markets.

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