การวิเคราะห์คะแนน ESG และผลการดำเนินงานทางการเงินในการอธิบายผลตอบแทนหุ้น: หลักฐานจาก SET100 ของประเทศไทย

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Dissecting ESG Scores and Financial Performance in Explaining Stock Returns: Evidence from Thailand's SET100

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บทคัดย่อ

งานวิจัยนี้ศึกษาความสัมพันธ์ระหว่างคะแนนด้านสิ่งแวดล้อม สังคม และธรรมาภิบาล (ESG) กับอัตราผลตอบแทนของหุ้นในกลุ่มบริษัทจดทะเบียนในดัชนี SET100 ของประเทศไทย ครอบคลุมทุกกลุ่มอุตสาหกรรมหลัก โดยใช้ข้อมูลในปีงบประมาณ 2566 จุดมุ่งหมายเพื่อวิเคราะห์ว่าคะแนน ESG ซึ่งจัดทำโดยผู้ประเมินหลายรายสามารถอธิบายความผันแปรของผลตอบแทนหุ้นได้เหนือกว่าตัวชี้วัดทางการเงินแบบดั้งเดิมหรือไม่ โดยรวบรวมข้อมูลคะแนน ESG จากแหล่งที่ได้รับความนิยม 5 แห่ง ได้แก่ SETESG, Morningstar Sustainalytics, ESGBook, Refinitiv และ S&P Global พร้อมทั้งใช้อัตราส่วนทางการเงิน เช่น อัตราผลตอบแทนต่อส่วนของผู้ถือหุ้น (ROE), อัตราผลตอบแทนต่อสินทรัพย์ (ROA), อัตราส่วนราคาต่อกำไร (P/E), กำไรสุทธิ และอัตราเงินปันผล

การวิเคราะห์ใช้แบบจำลองถดถอยภาคตัดขวาง (Cross-Sectional Regression) ผลการศึกษาแสดงให้เห็นว่าคะแนน ESG มีความสัมพันธ์ระดับอ่อนถึงปานกลางกับผลตอบแทนหุ้น และไม่มีตัวชี้วัด ESG รายใดมีนัยสำคัญทางสถิติที่ระดับ 5% ในการอธิบายผลตอบแทน ในขณะที่ตัวแปรทางการเงิน โดยเฉพาะอัตราส่วน P/E และอัตราเงินปันผล แสดงความสามารถในการทำนายผลตอบแทนอย่างมีนัยสำคัญ ผลการศึกษานี้ชี้ให้เห็นว่า ข้อมูล ESG ยังไม่ถูกรวมเข้าเป็นส่วนหนึ่งของกลไกราคาหลักทรัพย์ในตลาดทุนไทยอย่างสมบูรณ์ และยังคงมีบทบาทรองเมื่อเทียบกับปัจจัยพื้นฐานทางการเงิน ทั้งนี้ ข้อค้นพบดังกล่าวให้ข้อเสนอแนะต่อผู้ลงทุน หน่วยงานกำกับดูแล และบริษัทจดทะเบียนถึงความจำเป็นในการเสริมสร้างความโปร่งใส มาตรฐานการวัดผล และความตระหนักรู้ในมิติ ESG เพื่อยกระดับความสำคัญทางการเงินของ ESG ในตลาดเกิดใหม่

คำสำคัญ : คะแนน ESG, อัตราผลตอบแทนหุ้น, ตลาดทุนไทย, การเงินอย่างยั่งยืน

Abstract

This study examines the relationship between Environmental, Social, and Governance (ESG) scores and stock returns among publicly listed firms in Thailand's SET100 index across all major industry sectors, using data from the fiscal year 2023. The research aims to assess whether ESG performance, as rated by multiple providers,

has explanatory power over stock return variations beyond traditional financial metrics. ESG ratings were collected from five widely used sources, SETESG, Morningstar Sustainalytics, ESGBook, Refinitiv, and S&P Global. Financial variables including return on equity (ROE), return on assets (ROA), price-to-earnings ratio (P/E), net profit, and dividend yield were also included. The study employed cross-sectional regression analysis and diagnostic tests for model validity.

The results reveal that ESG ratings show weak to moderate correlation with stock returns, and none of the ESG indicators were statistically significant at the 5% level in explaining return variations. In contrast, traditional financial metrics especially the P/E ratio and dividend yield, exhibited significant predictive power. The model passed standard diagnostic tests, confirming the absence of multicollinearity, heteroskedasticity, and autocorrelation issues.

These findings suggest that ESG information is not yet fully integrated into investment pricing in the Thai equity market. The results offer implications for investors, regulators, and listed firms by highlighting the continuing dominance of financial fundamentals and the need to enhance ESG transparency, comparability, and market awareness to strengthen ESG's financial relevance in emerging markets.

Keywords: ESG Ratings, Stock Returns, SET100, Sustainable Finance

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Introduction

In recent years, the integration of Environmental, Social, and Governance (ESG) considerations into corporate strategy and investment decision-making has gained substantial momentum across global and emerging markets. ESG serves as a multidimensional evaluative framework encompassing factors such as carbon emissions, employee welfare, board independence, and corporate transparency, elements that reflect a firm's commitment to sustainable and responsible business conduct. As of 2023, over 70% of institutional investors in Thailand reportedly incorporate ESG factors into their portfolio decisions, and more than 200 Thai listed companies have voluntarily published sustainability reports in accordance with GRI or TCFD frameworks, underscoring its growing relevance in the Thai financial landscape.

However, despite this growing ESG awareness, there remains a research gap regarding the financial relevance of ESG ratings in Thailand's equity market. Specifically, prior studies have not systematically compared ESG scores across multiple international providers, nor have they examined the explanatory power of such scores on firm-level stock returns within the

context of Thailand's SET100 index. Most existing research has either focused on single-source ESG data or examined broader regional or global samples, leaving the Thai case underexplored (Taechaubol, 2017).

This study aims to fill this gap by investigating:

1. Do ESG scores from major rating agencies significantly explain variations in stock returns among Thai SET100 firms?

2. Do ESG ratings provide additional explanatory power beyond traditional financial performance indicators such as ROE, ROA, P/E ratio, net profit, and dividend yield?

To address these questions, the study integrates ESG scores from five widely recognized providers SETESG, Morningstar Sustainalytics, ESGBook, Refinitiv, and S&P Global within a cross-sectional regression model alongside core financial variables. Unlike previous research that relies on single ESG data sources, this multi-provider approach allows for a more comprehensive evaluation of how ESG scores differ in their predictive ability and practical utility.

The practical implications are twofold. First, the findings provide investors with a clearer understanding of whether ESG data improves return forecasts when used in conjunction with traditional financial metrics. Second, the results inform Thai regulators and listed firms about the current limitations in ESG pricing, suggesting the need for improved ESG data standardization, transparency, and integration within financial models to support more efficient and sustainable capital allocation.

Literature Review

The relationship between Environmental, Social, and Governance (ESG) performance and stock returns has attracted growing interest from both academics and financial practitioners. ESG, as a multidimensional evaluative framework, reflects a company's commitment to sustainability through measures such as environmental impact, employee treatment, board diversity, and transparency. Over time, ESG scores have evolved from qualitative disclosure assessments to become critical inputs in investment evaluation and corporate strategy (Albuquerque et al., 2018; Khan, 2019).

Theoretically, the ESG–performance nexus is underpinned by several frameworks. Stakeholder theory suggests that companies addressing the interests of diverse stakeholders can reduce conflict and build reputational capital, potentially enhancing long-term financial

outcomes. Agency theory supports the view that improved governance mechanisms often embedded within ESG structures, help mitigate agency problems and promote efficiency. Institutional theory emphasizes that ESG integration may stem from pressures to conform to societal expectations and regulatory norms, while resource-based theory views ESG capabilities as strategic intangible assets that can offer competitive advantages through innovation and sustainability-oriented differentiation.

Despite growing adoption of ESG principles, the empirical findings remain inconclusive. Albuquerque et al. (2018) argue that firms with high ESG performance experience lower firm-specific risk and attract long-term capital. Similarly, Sorensen et al. (2022) confirm that strong ESG fundamentals are associated with enhanced stock performance. However, Chava (2014) reports that some ESG components—particularly environmental factors are more likely to be priced by the market, while others have minimal financial impact. Bolton and Kacperczyk (2020) introduce the concept of the "carbon premium," suggesting that investors require higher returns for firms with higher carbon exposure, implying a negative valuation of environmental risk. Pastor et al. (2021) argue from a risk-based view that while high-ESG firms may generate lower expected returns due to investor preference for sustainable firms, they serve as risk buffers during market downturns. A growing body of literature also highlights the issue of ESG rating disagreement. Brandon et al. (2021) find that such disagreement, resulting from differences in rating methodology, weighting schemes, and scope of measurement, may itself be a source of risk and return. Berg et al. (2022) emphasize how rating divergence introduces "noise" in financial modeling, complicating the use of ESG metrics for investment decisions.

To address this complexity, the current study includes ESG scores from five major rating providers SETESG, Morningstar Sustainalytics, ESGBook, Refinitiv, and S&P Global. These sources differ in methodology, geographic focus, and data standardization. SETESG is tailored to local disclosure practices and regulatory alignment within Thailand. Morningstar focuses on unmanaged ESG risk. ESGBook provides SDG-aligned and real-time data. Refinitiv emphasizes global transparency with historical depth, and S&P Global includes sector-specific benchmarks.

In Thailand, ESG research remains sparse. Taechaubol (2017) found that investor reactions to ESG-related disclosures (e.g., inclusion in the ESG100 index) were statistically insignificant. ESG and firm performance but were limited by a single ESG data source or focused sectoral scope, leaving broader empirical gaps. These findings suggest that ESG integration into

investment pricing in Thailand is still in the early stages and not yet mainstreamed into financial valuation processes.

Given the methodological divergence of ESG scores and the limited research coverage in Thailand, this study contributes to the literature by comparing five leading ESG rating providers and testing their explanatory power over stock returns in the Thai capital market. The study also integrates conventional financial variables such as ROE, ROA, P/E, net profit, and dividend yield to assess whether ESG scores offer additional insights beyond financial fundamentals. Using the SET100 as a benchmark index allows for comparability and sectoral coverage across all major Thai industries.

Based on the reviewed literature and theoretical frameworks, the study proposes the following hypotheses:

H_1: ESG scores from major rating agencies do not significantly explain stock return variations in Thailand's SET100, beyond traditional financial metrics.

H_2: Financial ratios such as ROE, ROA, P/E, net profit, and dividend yield influence stock return variations in Thailand's SET100.

These hypotheses reflect the expectation that financial fundamentals still dominate return determinants in the Thai equity market, while ESG factors, though conceptually important, may not yet exhibit robust explanatory power due to limited market maturity, investor awareness, and inconsistent ESG standardization.

Research Methodology

This study employs a quantitative, cross-sectional research design to examine the relationship between stock returns and Environmental, Social, and Governance (ESG) ratings, along with conventional financial performance indicators. The analysis focuses on companies listed in Thailand's SET100 index during the fiscal year 2023, which represents the 100 most liquid and large-cap stocks on the Stock Exchange of Thailand (SET), selected based on trading volume and market capitalization. The sample consists of firms for which complete and consistent data on ESG scores, financial metrics, and stock returns were available for the fiscal year 2023. To ensure comparability and relevance, the study applies a purposive sampling method that includes only firms with complete observations and active trading records in 2023.

ESG data were collected from five major providers:

- SETESG (local ESG disclosure index by SET),

- Morningstar Sustainalytics (risk-based ESG exposure),

- ESGBook (real-time ESG data cloud),

- Refinitiv (quantitative ESG scoring with governance focus), and

- S&P Global (comprehensive risk-to-value ESG framework).

Financial performance indicators include Return on Equity (ROE), Return on Assets (ROA), Price-to-Earnings Ratio (P/E), Net Profit Margin (NP), and Dividend Yield (DIV). The dependent variable is the annual stock return (RETURN). Control variables used in the regression model include industry dummies (8 major industry sectors) and firm size (log of total assets) to account for structural and scale effects.

The regression model is specified as follows:

$$\text{RETURN}_i = \beta_0 + \beta_1 \text{SETESG}_i + \beta_2 \text{Morningstar}_i + \beta_3 \text{ESGBook}_i + \beta_4 \text{Refinitiv}_i + \beta_5 \text{S\&PGlobal}_i + \beta_6 \text{ROE}_i + \beta_7 \text{ROA}_i + \beta_8 \text{PE}_i + \beta_9 \text{NP}_i + \beta_{10} \text{DIV}_i + \beta_{11} \text{lnSIZE}_i + \sum_{j=12}^{18} \beta_j \text{Industry}_i + \varepsilon_i$$

Where:

RETURN = Annual stock return calculated by $(\text{Price}_t - \text{Price}_{t-1})/\text{Price}_{t-1}$

ESG variables = ESG scores from five providers (SETESG, Morningstar Sustainalytics, ESGBook, Refinitiv and S&P Global)

ROE / ROA / PE / NP / DIV = Financial indicators

lnSIZE = Logarithm of total assets

Industry = Dummy variables for industry sector

ε_i = Error term

Prior to regression analysis, descriptive statistics are calculated to summarize central tendencies and dispersion of variables. A Pearson correlation matrix is used to assess linear associations and to detect initial signs of multicollinearity. Variance Inflation Factors (VIFs) are calculated, and all values were found to be below 3, indicating the absence of multicollinearity.

To assess model robustness:

- Heteroskedasticity is tested using the Breusch–Pagan (BP) test,

- Autocorrelation is examined using the Breusch–Godfrey (BG) LM test,

- Model fit is assessed via Adjusted R^2 and F-statistic values,

- t-statistics and p-values are used to evaluate the significance of independent variables. All diagnostic tests confirmed that the model does not suffer from multicollinearity, heteroskedasticity, or autocorrelation.

Empirical Results

Table 1 presents the descriptive statistics for the variables used in the regression analysis. The dataset comprises 100 firms listed in the SET100 index, with slightly varying numbers of observations for each variable due to differences in data availability across ESG rating providers and financial metrics. The dependent variable, Return, has a mean of 0.2652 with a standard deviation of 0.4217, ranging from a minimum of 0.0093 to a maximum of 3.9538, indicating substantial variation in stock performance among the sampled firms.

Table 1 Descriptive Statistics

Variables	N	Mean	Std. Dev.	Min	Max
RETURN	100.0	0.2652	0.4217	0.0093	3.9538
SETESG	100.0	2.5	1.5209	0.0	4.0
Morningstar	100.0	1.89	0.764	0.0	3.0
ESGBook	71.0	60.9144	6.6867	45.08	73.36
Refinitiv	91.0	58.9589	13.8551	24.97	91.4
S&PGlobal	88.0	54.8977	27.5343	13.0	95.0
ROE	100.0	0.1295	0.1014	0.0074	0.725
ROA	100.0	0.0439	0.0395	0.0007	0.1857
PE	93.0	16.65	9.92	2.12	60.12
NP	100.0	0.1644	0.1513	0.0037	0.9473
DIV	94.0	0.05	0.0341	0.0008	0.2655

Among the ESG indicators, SETESG has full coverage across all 100 firms, with a mean score of 2.5 on a 0–4 scale, suggesting moderate sustainability disclosure among Thai firms. Morningstar Sustainalytics data show a mean rating of 1.89 with a lower standard deviation of 0.764, while ESGBook, Refinitiv, and S&P Global have means of 60.91, 58.96, and 54.90 respectively, though with fewer observations (N = 71–91). The standard deviations for these international scores (especially S&P Global, SD = 27.53) imply greater variability in assessment criteria or ESG performance among firms. Due to access limitations and differences

in data availability, the dataset constitutes an unbalanced cross-sectional sample, particularly with regard to ESG scores. While SETESG and Morningstar Sustainalytics provide full coverage for all 100 firms in the SET100 index, ESGBook, Refinitiv, and S&P Global offer ratings for only 71, 91, and 88 firms, respectively. As a result, the analysis excludes firms with missing ESG scores on a per-provider basis rather than imputing or interpolating missing values, to preserve data integrity and avoid introducing estimation bias.

For firm-level financial characteristics, ROE and ROA average 12.95% and 4.39%, respectively, both within expected ranges for firms in emerging markets. The P/E ratio has a mean of 16.65, with values ranging from 2.12 to 60.12. Net profit margin (NP) shows a mean of 16.44% with substantial dispersion (SD = 15.13%), while the average dividend yield (DIV) is 5.00%, ranging from 0.08% to 26.55%. These statistics provide an initial overview of firm performance and sustainability profiles, and highlight notable heterogeneity across ESG providers and financial fundamentals.

Table 2 presents the Pearson correlation coefficients (expressed in percentages) among the key variables in the study, including ESG ratings from multiple providers and firm-level financial indicators. This analysis helps identify the strength and direction of bivariate relationships and potential multicollinearity prior to regression modeling.

Table 2 Correlation Matrics

	RETURN	SETESG	Morningstar	ESGBook	Refinitiv	S&P	ROE	ROA	PE	NP	DIV
RETURN	100.0	-23.52	-27.73	9.69	3.42	8.7	0.15	-7.62	17.23	-11.52	-4.99
SETESG	-23.52	100.0	2.17	27.3	35.59	41.32	-25.91	-28.14	-1.44	2.99	-20.67
Morningstar	-27.73	2.17	100.0	2.23	-7.71	-14.86	2.65	1.64	-12.01	-9.47	19.6
ESGBook	9.69	27.3	2.23	100.0	31.87	52.27	-10.13	6.19	27.42	-24.35	-17.88
Refinitiv	3.42	35.59	-7.71	31.87	100.0	50.42	-28.64	-19.96	19.48	-16.34	-16.67
S&P	8.7	41.32	-14.86	52.27	50.42	100.0	-19.34	-19.56	29.08	-26.42	-27.78
ROE	0.15	-25.91	2.65	-10.13	-28.64	-19.34	100.0	73.63	6.0	25.32	-6.8
ROA	-7.62	-28.14	1.64	6.19	-19.96	-19.56	73.63	100.0	11.06	4.79	-11.28

	RETURN	SETESG	Morningstar	ESGBook	Refinitiv	S&P	ROE	ROA	PE	NP	DIV
PE	17.23	-1.44	-12.01	27.42	19.48	29.08	6.0	11.06	100.0	-25.24	-36.67
NP	-11.52	2.99	-9.47	-24.35	-16.34	-26.42	25.32	4.79	-25.24	100.0	13.79
DIV	-4.99	-20.67	19.6	-17.88	-16.67	-27.78	-6.8	-11.28	-36.67	13.79	100.0

The dependent variable, Return, shows a moderate negative correlation with both SETESG (-23.52%) and Morningstar (-27.73%), suggesting that firms with higher ESG scores may not necessarily experience superior short-term returns. However, it shows a weak positive correlation with ESGBook (9.69%), Refinitiv (3.42%), and S&P Global (8.7%). These variations reflect differences in ESG scoring methodologies and investor perceptions across providers. Among ESG metrics, there are substantial intercorrelations. For example, S&P Global is highly correlated with ESGBook (52.27%) and Refinitiv (50.42%), indicating consistency among international rating systems. SETESG also shows a strong positive correlation with S&P (41.32%) and Refinitiv (35.59%), while Morningstar exhibits generally weaker associations with other ESG scores.

Turning to financial indicators, ROE and ROA are highly correlated (73.63%), as expected due to their overlapping components. P/E shows moderate positive correlations with ESGBook (27.42%) and S&P (29.08%), while exhibiting a negative relationship with DIV (-36.67%), reflecting the trade-off between growth expectations and payout policies. Net Profit (NP) correlates positively with ROE (25.32%) and negatively with ESGBook (-24.35%) and S&P (-26.42%), suggesting potential cost implications of ESG investments on profit margins. Overall, the correlation matrix suggests limited multicollinearity among most variables, though high inter-ESG correlations and ROE–ROA overlap warrant caution. These insights support the inclusion of ESG scores and financial indicators in multivariate regression analysis to investigate their distinct contributions to stock returns.

Table 3 presents the results from the Ordinary Least Squares (OLS) regression analysis examining the relationship between stock returns and ESG scores alongside firm-specific financial indicators. The model includes five ESG variables—SETESG, Morningstar, ESGBook, Refinitiv, and S&P Global—as well as traditional performance measures including return on equity (ROE), return on assets (ROA), price-to-earnings ratio (P/E), net profit, and dividend yield (DIV).

Among the independent variables, P/E ratio is found to be statistically significant at the 0.01 level (β = 0.9143, p = 0.0014), suggesting that firms with higher valuation multiples tend to generate higher returns. The dividend yield (DIV)is also statistically significant at the 0.05 level (β = 1.8003, p = 0.0448), indicating that higher dividend payouts are associated with higher stock returns, possibly due to signaling effects or investor preference for income. Other variables, including the ESG scores, show no statistically significant effects at the conventional levels. Notably, S&P Global score approaches marginal significance (β = -0.0018, p = 0.0579), potentially indicating an inverse relationship between sustainability rating and short-term returns. This may reflect the so-called ESG premium hypothesis, where lower ESG-rated firms offer excess returns due to underpricing or perceived risk (Engelhardt et al. 2021; Dinh, 2023). The adjusted R² for the model is 0.2887, suggesting that approximately 29% of the variance in stock returns is explained by the included variables. The F-statistic of 2.1102 indicates moderate overall significance of the regression model.

Table 3 Regression Analysis with VIF & Diagnostics

Variable	Coefficient	Std. Error	t-stats	p-value
Constant	-0.1955	0.1871	-1.0449	0.3009
SETESG	0.0105	0.0171	0.6139	0.542
Morningstar	-0.0344	0.0289	-1.1911	0.239
ESGBook	0.0035	0.003	1.1666	0.2487
Refinitiv	0.0013	0.0015	0.8213	0.4152
S&PGlobal	-0.0018	0.0009	-1.9393	0.0579
ROE	0.4746	0.3289	1.4428	0.1551
ROA	-1.3757	0.7617	-1.806	0.0767
PE	0.9143	0.2714	3.3691**	0.0014
Net Profit	-0.0439	0.1197	-0.3668	0.7153
DIV	1.8003	0.9542	1.9867*	0.0448
Adj. R² = 0.2887, F-stats = 2.1102, MAX VIF. = 2.57, BP (Breusch–Pagan) (p-value) = 0.4731 and BG (Breusch–Godfrey) (p-value) = 0.6139				

Note: **Statistically significant at 0.01 level and *Statistically significant at 0.05 level

To assess model robustness, several diagnostic tests were conducted. The maximum VIF value is 2.57, well below the commonly accepted threshold of 10, indicating no serious multicollinearity issues. The Breusch–Pagan test for heteroskedasticity returns a p-value

of 0.4731, and the Breusch–Godfrey test for autocorrelation gives a p-value of 0.6139—both above the 0.05 threshold, suggesting no violation of homoskedasticity or independence assumptions.

Overall, the model demonstrates statistical reliability, and the results emphasize the importance of financial fundamentals particularly valuation and dividend signals over ESG metrics in explaining cross-sectional stock returns in the SET100 sample.

Discussion

The findings from this study provide a nuanced perspective on the relationship between ESG performance, financial fundamentals, and stock returns among firms listed in Thailand's SET100 index. While ESG principles are increasingly embraced in corporate reporting and investment strategies globally, the empirical evidence from this research suggests that their integration into Thai capital markets remains limited in terms of financial materiality.

One of the most prominent observations is the substantial variation in ESG scores across rating providers, SETESG, ESGBook, Refinitiv, and S&P Global display differing mean values and dispersion levels, reinforcing prior concerns about methodological inconsistencies across rating agencies (Brandon et al., 2021; Berg et al., 2022). This discrepancy in scoring approaches contributes to investor confusion and presents challenges for ESG signal reliability. The variation in sample coverage (N = 71 to 100) further suggests inconsistent data availability, particularly from international providers, which may reflect uneven disclosure practices or limitations in ESG data infrastructure in Thailand.

The correlation analysis shows that the relationship between stock returns and ESG scores is generally weak to moderate and, in some cases, negative. In particular, SETESG (-23.52%) and Morningstar (-27.73%) ratings exhibit negative correlations with annual stock returns, a finding consistent with the ESG premium hypothesis (Merton, 1987; Bolton & Kacperczyk, 2020). This hypothesis posits that firms with higher ESG ratings may command valuation premiums, thereby yielding lower realized returns. Additionally, the limited correlations between ESG scores and traditional financial metrics such as ROE and ROA indicate that ESG dimensions reflect non-financial or longer-term strategic characteristics rather than near-term profitability.

Regression analysis confirms these findings. None of the five ESG scores are statistically significant at the 5% level in explaining stock returns, with the exception of the S&P Global score, which is marginally significant (p = 0.0579) and negatively signed. This aligns with studies that caution against assuming a universal positive ESG–return relationship, especially in markets with lower ESG integration maturity (Pastor et al., 2021; Vu et al., 2024). Compared to global evidence—such as Albuquerque et al. (2018) and Sorensen et al. (2022), who report that ESG can reduce firm risk and improve performance in developed markets—our findings diverge. This may reflect contextual differences such as limited ESG awareness, inconsistent regulatory frameworks, and cultural variation in stakeholder expectations in Thailand. These contradictions highlight the importance of local institutional environments in shaping ESG-financial dynamics.

In contrast, conventional financial indicators specifically price-to-earnings ratio (P/E) and dividend yield (DIV) are statistically significant and positively associated with stock returns, at the 1% and 5% levels, respectively. This reaffirms the explanatory power of valuation-based indicators and supports classical financial theory which posits that investors reward earnings growth and stable income streams. Interestingly, ROE and ROA were not statistically significant in the model, which may be attributed to multicollinearity between these profitability metrics or their limited predictive power for short-term return variation.

The multiple regression model exhibits acceptable explanatory power with an Adjusted R^2 of 0.2887, indicating that the selected independent variables account for nearly 29% of the variation in stock returns. Robustness tests, including Variance Inflation Factors (VIFs), the Breusch–Pagan test for heteroskedasticity, and the Breusch–Godfrey test for autocorrelation, confirm the absence of major specification errors, multicollinearity, or bias. These diagnostics support the statistical validity and reliability of the estimated results.

The practical implications of these findings are critical for Thai listed firms and regulators. Given the insignificant impact of ESG scores on stock returns, companies may lack short-term incentives to invest in ESG disclosure or performance enhancement unless compelled by regulation or stakeholder activism. For firms aiming to attract long-term, sustainability-conscious investors, aligning with international ESG frameworks and improving ESG transparency could be vital. Likewise, regulators may consider standardizing ESG reporting practices to enhance data comparability and reduce rating noise.

Taken together, these results contribute to the growing body of ESG literature in emerging markets by illustrating the limited financial salience of ESG ratings in Thailand's SET100 index during the study period. While studies from developed markets (e.g., Albuquerque et al., 2018; Sorensen et al., 2022) often report positive links between ESG and stock performance, the present study echoes cautionary perspectives from Chava (2014), Luo (2022), and others, who argue that ESG's effects are context-dependent and influenced by rating divergences, investor awareness, and regulatory support. In Thailand, the lack of ESG significance in asset pricing underscores the importance of improving ESG standardization, transparency, and market education to foster deeper integration into investment decisions.

Conclusion

This study investigates the relationship between stock returns and ESG scores from multiple rating providers, alongside traditional financial performance indicators, using a cross-sectional sample of firms listed in Thailand's SET100 index. By incorporating ESG data from SETESG, Morningstar, ESGBook, Refinitiv, and S&P Global, and combining these with key financial metrics—ROE, ROA, P/E, net profit, and dividend yield—the study offers a comprehensive evaluation of the extent to which sustainability and financial fundamentals influence stock performance in the Thai capital market.

The empirical findings reveal that ESG scores, while diverse and widely promoted, do not significantly explain variations in stock returns at conventional levels of statistical significance. This result underscores the challenge of applying ESG data for investment decisions in emerging markets, where ESG information may be inconsistently reported, limited in depth, or not yet priced into valuations. It also highlights the inconsistencies among ESG ratings and aligns with previous research suggesting that methodological disagreement among providers introduces "noise" into ESG data (Brandon et al., 2021; Berg et al., 2022). Interestingly, the weak to negative correlations between ESG indicators and stock returns are consistent with the ESG premium hypothesis (Merton, 1987), whereby underweighted or undervalued low-ESG firms may deliver superior returns in less efficient markets.

In contrast, traditional financial indicators specifically the price-to-earnings ratio and dividend yield—are shown to be robust predictors of stock returns. These findings reinforce the enduring relevance of firm fundamentals in investor decision-making, particularly in emerging markets such as Thailand where ESG integration remains limited.

The study contributes to the growing body of literature by highlighting the nuanced and context-specific nature of ESG–return relationships. It emphasizes the importance of accounting for data source variability and market characteristics when evaluating ESG impacts. For investors, the results suggest caution in over-relying on ESG scores for return forecasting in markets where ESG integration is still evolving. For policymakers and rating agencies, the findings underline the need for standardized ESG measurement frameworks and greater transparency to enhance their utility in capital allocation.

However, the study is not without limitations. Due to constraints in accessing detailed firm-level ESG disclosures and business data, the analysis relied solely on publicly available ESG ratings and financial metrics. This may overlook firm-specific sustainability practices not captured by external rating providers. Furthermore, the cross-sectional design restricts the ability to capture dynamic ESG-performance relationships over time.

Future research could extend this analysis by incorporating multi-year panel data, exploring ESG effects by industry, or examining market reactions to ESG disclosures and events. As global sustainability standards continue to develop, further evidence from emerging economies like Thailand will be critical in shaping a more inclusive understanding of ESG's financial implications.

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