



ESG Disclosure and Financial Performance:

Evidence from Listed Companies on the Stock Exchange of Thailand

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Abstract

This research examines the relationship between the ESG disclosure and financial performance of the listed companies on the Stock Exchange of Thailand. The study applied regression analysis using ESG disclosure from a sample of 210 listed firms with 420 firm-years data collected during 2023 to 2024. This study adds the use of panel data analysis and we used the Hausman test to choose between the random effect, and the fixed effect. Focusing on studying the relationship with important indicators, including return on total assets (ROA), return on equity (ROE), and Tobin's Q.

As a result, ROA showed that the coefficients for both ESG disclosure and firm size did not differ statistically significantly in both fixed-effect and random-effect analysis. However, we found that the ESG disclosure coefficients were statistically significant and had a negative correlation with ROE and Tobin's Q in a random effect model. The study results indicate that, at the time of the research, the operating costs of ESG outweighed the benefits, with market participants viewing ESG activities as a cost burden and regulatory compliance issue rather than a long-term value-creating factor, resulting in decreased business valuation. Therefore, companies should integrate their business strategies with ESG to improve efficiency and mitigate short-term impacts on performance.

Keywords: 1) ESG Disclosure 2) Financial Performance 3) Panel Data Analysis 4) Stock Exchange of Thailand 5) Tobin's Q

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Introduction

The concept of sustainable business practices within the ESG framework (Environmental, Social, and Governance) has gained widespread attention in recent decades. This is due to the recognition that factors related to the environment, society, and corporate governance can impact an organization's competitive potential and its role in long-term value creation, beyond just financial performance. ESG assessment approaches are therefore being used as one of the key variables that investors consider alongside financial data, and are becoming a strategic factor in modern corporate management.

At the investment market level, the ESG concept has gained increasing attention from both individual and institutional investors. Foreign studies indicate that many investment portfolios are allocating a significantly increasing proportion of their investments to businesses that perform well according to ESG criteria. Domestic studies in Thailand have also found that sustainable investing can generate competitive returns, with portfolios based on sustainability indices outperforming general market indices over a period of time. This suggests that considering sustainability does not diminish financial benefits but rather helps increase opportunities for stable long-term returns. In response to these changes, more sustainability indices and assessment frameworks have been established, such as the Dow Jones Sustainability Indices (DJSI), the FTSE4Good Index, and the Stock Exchange of Thailand's Sustainable Stock Index (THSI), to serve as indicators of an organization's alignment with

ESG principles. The increasing number of companies that meet the criteria and are classified as sustainable stocks reflects the awakening of the Thai business sector in adapting its operations to align with sustainable development goals, as well as the growing interest of investors in using ESG as a framework for investment decision-making.

Under the concept of ESG, a key element in sustainable business operations worldwide, it emphasizes that organizations balance the public and explain the environment (Kotsantonis, Pinney, and Serafeim, 2016, pp. 10-16). Organizations that act on ESG are often considered to have a high level of feedback and continuous improvement that is not important in this issue (Friede, Busch, and Bassen, 2015, pp. 210-233).

Numerous studies indicate that ESG practices can positively impact a company's financial performance, both in terms of accounting measures (e.g., ROA, ROE) and market value (e.g., Tobin's Q). Friede, Busch, and Bassen (2015, pp. 210-233) synthesized over 2,000 research papers worldwide and found that over 90% of the studies indicated a positive relationship between ESG and financial performance. This supports the idea that sustainability practices enhance organizational efficiency and reduce long-term risk. A substantial body of research has systematically examined the relationship between ESG practices and firms' financial performance, reflecting the growing academic interest in sustainability-driven value creation (Oluwakemi and Mishelle, 2025, pp. 1-24; Aydoğmuş, Gülay, and Ergun, 2022, pp. 119-127; Jindaluang, 2025, pp. 96-110)

In terms of the capital market structure, Eccles, Ioannou, and Serafeim (2014, pp. 2835-2857) found that companies operating according to sustainability principles had significantly higher long-term financial returns and shareholder returns compared to companies that did not prioritize this aspect. Meanwhile, Khan, Serafeim, and Yoon (2016, pp. 1697-1724) pointed out that companies focusing on ESG issues that are important to their industry (material ESG issues) will have a higher Tobin's Q and better performance than companies focusing on strategically unimportant ESG issues.

In the context of Thailand, the results of the evaluation of companies included in the Stock Exchange of Thailand's Sustainable Stock Index (THSI) reflect a similar direction. Companies with high ESG ratings tend to show consistent operating performance and stronger market capitalization compared to those not in this group. This research differs from previous ESG research and performance results by focusing on ESG disclosure rankings rather than performance, using data from 2023-2024, a period when official rankings had just begun. Despite extensive evidence on the ESG-performance relationship, findings from emerging markets such as Thailand remain limited, particularly regarding ESG ratings rather than ESG performance measures. Firm-level evidence among Thai listed companies is therefore still scarce. As ESG disclosure has become increasingly relevant to investors, this study examines Thai listed firms during 2023-2024—a period of accelerating ESG integration in the Thai capital market—to investigate the relationship between ESG disclosure ratings and firm per-

formance. This is the origin of the study on the relationship between ESG disclosure and the financial performance of listed companies on the Stock Exchange of Thailand. This study will reveal the relationship between ESG disclosure rating and its relationship to corporate value. The study results can be used as investment strategy guidelines for investors or as a basis for developing ESG policies for various organizations to create sustainability for the organization and all stakeholders.

This paper is organized as follows: first, a literature review is presented regarding the theoretical background, ESG disclosures of firms listed in Thailand, financial performance, ESG disclosures and financial performance and their relevance for this research. Next, the research methodology is described. Then, the results of our study are explained, and, finally, we present a discussion and conclusion section, including some of the implications for management and policy, as well as the suggest future research directions.

Literature Review

Theoretical background

This study uses a theoretical framework to explain the link between ESG disclosure and financial performance, based on the principles of Stakeholder Theory and Agency Cost Theory.

Stakeholder theory explains that a firm's long-term success depends on its ability to meet the expectations of stakeholders (Freeman, 2010, pp. 31-41). ESG disclosure is considered a strategically important mechanism through which firms communicate their



commitment to environmental reporting, social accounting, and governance practices, which helps build their image, credibility, and transparency. Moreover, it reduces risk in investor and regulatory decision-making. Such positive stakeholder perceptions contribute to improved financial outcomes (Aydoğmuş, Gülay, and Ergun, 2022, pp. 119-127; Tansuwan, et al., 2025, pp. 56-71).

Similarly, agency cost theory explains that misalignment of interests between management and shareholders can lead to excess costs (Jensen and Meckling, 1976, pp. 305–360). Therefore, if a firm invests excessively in ESG to serve specific management objectives, such as branding, it may negatively impact financial performance. Therefore, ESG disclosure may also lead to lower financial results. However, investing in ESG is a long-term investment where initial stages involve higher costs, which can reduce firm performance in the short term. Over time, ESG activities improve management efficiency and risk reduction and ultimately enhance sustainable financial performance. (Jiamsagul and Sornbandit, 2025, pp. 115-130; Xu, et al., 2025, pp. 1-7).

Additionally, it utilizes a neoclassical perspective, an economic concept that emphasizes "human decision-making rationality", believing that decision-makers (including producers, consumers, and organizational executives) will choose the option that maximizes benefits within their constraints, such as budget, cost, time, and information. Key assumptions include that decision-makers behave rationally, aim to maximize returns for both users and producers, have complete

information about the market, and allocate resources efficiently. Friedman's concept is used as a theoretical framework to explain: if a company discloses CSR/ESG and its returns increase, it supports the neoclassical view because it shows that "CSR is economically beneficial." And, if CSR/ESG is disclosed and returns decrease or are unrelated, it means it aligns with Friedman's argument that "CSR may be a cost that is not beneficial to shareholders." (Friedman, 1970, pp. 122-126)

The relationship between ESG disclosure and firm performance can be explained through multiple theoretical perspectives. Stakeholder theory suggests that ESG engagement enhances firm value by addressing stakeholder expectations and strengthening corporate legitimacy. Agency theory further argues that ESG disclosure reduces information asymmetry and monitoring costs, thereby improving firm valuation (Gillan, Koch and Starks, 2021, p. 101889). In contrast, the neoclassical view posits that ESG activities impose additional costs that may reduce short-term financial performance, particularly in emerging markets where ESG adoption is still evolving (Gillan, Koch and Starks, 2021, p. 101889). Consequently, the net effect of ESG disclosure on firm performance remains an empirical question that may vary across institutional contexts and time horizons.

Environmental, social, and governance (ESG) disclosures of firms listed in Thailand

ESG reporting of Thai listed firms has been continuously promoted by regulatory agencies to raise the standards of transparency and competitiveness to international

standards. The Stock Exchange of Thailand (SET) has established One Report guidelines and a sustainability disclosure manual that are aligned with international standards such as the Global Reporting Initiative (GRI) and aligned with the directions of the International Sustainability Standards Board (ISSB) and the Task Force on Climate-related Financial Disclosures (TCFD) (Stock Exchange of Thailand, 2025a; World Bank, 2023), resulting in a significant increase in ESG disclosure in recent years.

SET has developed the SET ESG Rating as a sustainability assessment standard for listed companies, enhancing transparency and aligning disclosure practices with global frameworks. The initiative was first introduced as Thailand Sustainability Investment (THSI) in 2015 to recognize firms with strong ESG performance and was later rebranded to SET ESG Ratings in 2023 to expand coverage and improve international comparability. The rating system supports investment decision-making by classifying firms into four score levels: BBB (50–64), A (65–79), AA (80–89), and AAA (90–100). This reflects Thailand's commitment to elevating ESG performance and promoting responsible investment in the capital market. Despite progress, the quality of quantitative ESG disclosures and stronger linkages to measurable financial outcomes are still needed to reinforce credibility and global competitiveness. Additionally, alignment with regulatory requirements from the SET and the Securities and Exchange Commission (SEC) mandates ESG reporting in the One Report, further institutionalizing sustainability practices in Thailand's corporate landscape (Stock Exchange of Thailand,

2025b; Sustainability Disclosure and Reporting, 2025).

Financial Performance

Financial performance represents the firm's capacity to convert its resources into economic benefits for shareholders and other financial stakeholders, functioning as a key indicator of organizational stability and competitiveness. In empirical research, this concept is typically captured through two complementary perspectives. The first is accounting-based performance, where measures such as return on assets (ROA) and return on equity (ROE) demonstrate how effectively an organization transforms its asset base and equity capital into profits under established financial reporting standards (Velte, 2017, pp. 169-178; Oluwakemi and Mishelle, 2025, pp. 1-24). The second is market-based performance, most commonly assessed using Tobin's Q, which reflects investors' valuation of the firm relative to the cost of replacing its assets and thus signals expectations regarding future growth and long-term potential (Priyanto and Suhandi, 2023, pp. 61-71).

When used together, these indicators offer a multidimensional understanding of firm outcomes capturing both internal operational efficiency and external market sentiment. Their combined use is particularly relevant in ESG-related studies because different stakeholders may react distinctly to sustainability disclosures: internal improvements may enhance operational ratios, while transparent ESG reporting can influence investors' confidence and perceived firm value. As a result, accounting and market-based financial performance



metrics continue to serve as essential tools for evaluating how ESG practices translate into tangible economic benefits.

ESG disclosures and financial performance

ESG disclosure has received considerable attention in finance and accounting research as it is seen as a signal reflecting the quality of governance, transparency, and responsibility of an organization to its stakeholders, which may be linked to various dimensions of financial performance, including accounting returns such as ROA and ROE, as well as market value measured by Tobin's Q. However, previous literature has found diverse and inconsistent relationships.

Numerous studies have reported that ESG disclosure has a positive impact on financial performance. Firms that adequately disclose ESG information tend to build trust, reduce risk, and improve operational efficiency, leading to higher ROA and ROE, as well as better valuations in the capital market via Tobin's Q (Velte, 2017, pp. 169-178; Oluwakemi and Mishelle, 2025, pp.1-24; Nguyen and La, 2025, pp. 1-15; Azizah, et al., 2025, pp. 113-132). These positive effects are particularly pronounced in industries sensitive to environmental and social impacts, as ESG information reduces information asymmetry and increases transparency, allowing investors to better assess value.

Additionally, several studies have found that ESG disclosure can negatively impact financial performance, particularly if organizations overinvest in ESG or build brand image due to institutional pressures rather than focusing on economic value. This can result in

increased costs that depress return on investment (ROA/ROE) and may lead the market to lower a company's valuation through Tobin's Q if investors perceive it as a non-cash investment (Aydoğmuş, Gülay, and Ergun, 2022, pp. 119-127; Prabawati and Rahmawati, 2022, pp. 119-129; Manapreechadeelert, Dampitakse, and Ngudgratoke, 2024, pp. 483-499; Safitri and Paramita, 2025, pp. 29-36).

According to previous literature studies, the relationship between ESG disclosure and financial performance remains diverse and not well-aligned. This is due to differences in ESG indicators, disclosure standards, company size, industry, and national context. Thailand, in particular, has continuously promoted ESG standards, such as the One Report and SET ESG Ratings. However, there are still a few studies that cover the empirical link. Therefore, the inconsistency of previous studies, coupled with the need to understand the implications of ESG disclosure in the context of Thai listed firms, is a key impetus for this study to systematically analyze the relationship between ESG disclosures and the financial performance of Thai listed firms and provide more empirical support.

Previous findings show that ESG disclosure should not be interpreted simply as a cost that weakens financial performance. In many cases, ESG disclosure reflects how firms manage sustainability issues within their operations and business decisions. Negative financial effects are more likely when ESG activities are carried out mainly to respond to external pressure or to enhance corporate image, rather than to support long-term business goals.

Therefore, ESG disclosure can be viewed as a tool that strengthens firms' long-term competitiveness and stability, especially for firms listed in Thailand where sustainability practices are increasingly emphasized.

Therefore, from the above literature review, the research hypothesis is as follows:

H1: ESG disclosure has a relationship with ROA.

H2: ESG disclosure has a relationship with ROE.

H3: ESG disclosure has a relationship with Tobin's Q.

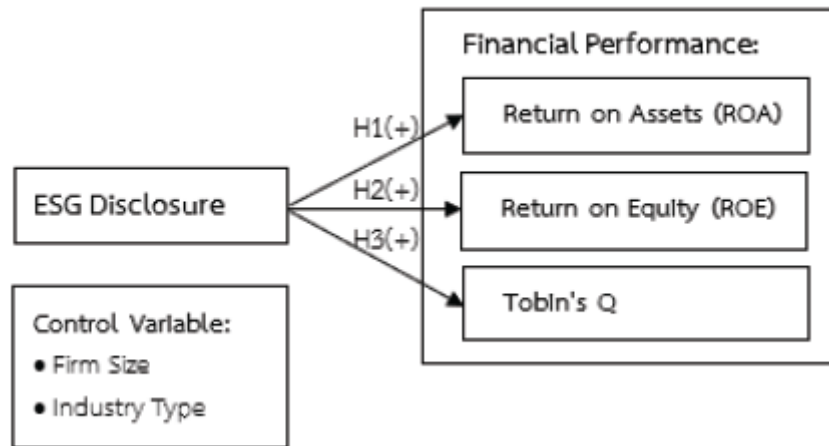


Figure 1 Conceptual Framework

Data and Methodology

Data and data collection

To investigate the relationships between the ESG Disclosure and financial performance. The sample consists of 210 firms due to the limited availability of SET ESG Rating data during the study period. As the SET ESG Rating was only recently introduced, ESG ratings were available for a subset of listed companies that had passed the sustainability assessment criteria set by the Stock Exchange of Thailand (SET). These firms represent companies with formal ESG disclosure practices and demonstrable management of ESG-related risks and opportunities. Therefore, the sample was restricted to firms with complete ESG Rating and financial data for 2023–2024, resulting in 210 firms and 420 firm-year observations.

Independent variable

ESG disclosure is the independent variable of this study, measured through the ESG Rating provided by the SET and regulated under the regulations of the SEC. ESG Rating serves as a standard for assessing the level of transparency, data quality, and environmental, social, and governance performance of listed companies, reflecting the comprehensiveness and systematicity of sustainability information disclosure. Consistent with prior empirical research, this study employs ESG rating as a proxy for ESG disclosure to capture the extent and quality of firms' sustainability-related information. ESG ratings provide a standardized and externally assessed measure that reflects how comprehensively firms disclose environmental, social, and governance practic-



es in accordance with regulatory and market expectations. By consolidating multiple ESG dimensions into a single evaluative metric, ESG ratings reduce subjectivity associated with self-reported disclosures and enhance comparability across firms. Accordingly, the use of ESG ratings enables a more rigorous and reliable examination of the relationship between ESG disclosure and financial performance. (Landi and Sciarelli, 2019, pp. 11-27; Chininga, Alhasan and Zeka, 2024, pp. 692-713).

Dependent variables

In many past studies, the return on assets ratio (ROA) and return on equity ratio (ROE) have been widely employed as proxy indicators to assess profitability. Similarly, Tobin's Q is commonly utilized as a proxy for firm value from the perspective of investors.

In empirical corporate finance and accounting research, ROA and ROE are commonly employed as dependent variables to represent firms' operational efficiency and profitability. ROA is measured as the ratio of net profit to total assets and reflects the firm's ability to utilize its asset base efficiently in generating earnings. In addition, ROE is calculated as the ratio of net profit to shareholders' equity and captures the effectiveness with which a firm generates returns for its equity holders. Together, these accounting-based indicators provide a comprehensive assessment of internal financial performance derived from firms' operating activities and capital structure (Ross, Westerfield and Jordan, 2013, pp. 64-65; Brigham and Houston, 2021, pp. 119-120). ROA and ROE are important financial indicators that reflect the performance and financial health

of an organization from the perspective of investors and management. ROA and ROE are calculated as follows:

$$ROA_{i,t} = \frac{\text{Net Profit}_{i,t}}{\text{Total Assets}_{i,t}}$$

where Net Profit_{i,t} represents net profit after tax of firm i in year t, and Total Assets_{i,t} denotes total assets at the end of the fiscal year.

$$ROE_{i,t} = \frac{\text{Net Profit}_{i,t}}{\text{Shareholders' Equity}_{i,t}}$$

where Shareholders' Equity_{i,t} refers to total equity attributable to shareholders of firm i in year t.

Tobin's Q is a financial instrument used to assess firm value and support investment decisions. The firm value was measured using Tobin's Q ratio, consistent with prior literature. Tobin's Q was approximated as the ratio of the market value of the firm to the book value of the total asset and have been used widely in financial research (Chung and Pruitt, 1994, pp. 70-74). Tobin's Q is calculated as follows:

$$\text{Tobin's } Q_{i,t} = \frac{\text{Market Value of Equity}_{i,t} + \text{Book value of Total Liabilities}_{i,t}}{\text{Book Value of Total Assets}_{i,t}}$$

where: Market Value of Equity is calculated as the market capitalization, measured by the firm's share price multiplied by the number of common stock outstanding, and Book Value of Total Liabilities represents the firm's total liabilities reported in the balance sheet, Finally, Book Value of Total Assets refers to the total assets reported in the financial statements.

Control variables

This study controls for firm size and industry type to account for key sources of heterogeneity that may influence both ESG dis-

closure and financial performance. The natural logarithm of total assets is used to measure firm size. This shows differences in resource capacity, organizational complexity, and the ability to disclose information. Industry type is included to capture sector-specific characteristics, regulatory exposure, and sustainability-related pressures that systematically affect ESG practices. Consistent with prior literature, these two controls are sufficient to mitigate major firm-level and structural biases while maintaining model parsimony and estimation efficiency (Velte, 2017, pp. 169–178; Chininga, Alhassan and Zeka, 2024, pp. 692-713; Nguyen and La, 2025, pp. 1-15).

Empirical models

The empirical regression model for this study is as follows;

$$ROA_{i,t} = \alpha_0 + \alpha_1 ESG_{i,t} + \sum \alpha x_{i,t} + \varepsilon \quad (1)$$

$$ROE_{i,t} = \alpha_0 + \alpha_1 ESG_{i,t} + \sum \alpha x_{i,t} + \varepsilon \quad (2)$$

$$Tobin's\ q_{i,t} = \alpha_0 + \alpha_1 ESG_{i,t} + \sum \alpha x_{i,t} + \varepsilon \quad (3)$$

Where ROA, ROE, Tobin's q is the measure of financial performance and x is a vector of other explanatory variables. The ESG rating was employ as the proxy for the independent variable.

Methodology

This study adds the use of panel data analysis. Panel data allows the researchers to control for variables with differences in busi-

ness practices across firms or variables that change over time but not across entities. In this paper, the focus is on two techniques for analysis of panel data, include Fixed-Effect (FE) and Random Effects (RE). We decided to use fixed effect estimators. This is due to some of our explanatory variables do not change over time. However, random effect assumes that the entity's error term does not correlate with the predictors which allows for time-invariant variables to play a role as explanatory variables. Finally, we used the Hausman test to choose between the random effect, and the fixed effect.

Results

This section presents the analytical outcomes of ESG disclosure related to the financial performance of Thai-listed firms. Findings include an overview of the sample, patterns among study variables, and statistical effects. Descriptive results, association measures, and regression outputs illustrate how ESG disclosure differences align with accounting-based and market-based performance variations. These results build the empirical basis for evaluating the hypotheses and understanding implications for corporate sustainability in Thailand. Key statistical results follow.

Table 1 Shows the number and percentages of firms classified by industry types.

No.	Industry Type	Firms	Percentage (%)
1	Agriculture and food industry	30	14.29
2	Consumer Products	10	4.76
3	Industrials	38	18.10
4	Property and Construction	36	17.14
5	Resources	32	15.24



No.	Industry Type	Firms	Percentage (%)
6	Services	46	21.90
7	Technology	18	8.57
Total		210	100

Table 1 presents the distribution of firms by industry type. The largest proportion of firms is in the services sector (21.90%), followed by industrials (18.10%) and property and construction (17.14%). The smallest group is

consumer products, accounting for only 4.76% of the sample. Overall, the sample covers a diverse range of industries, providing a representative basis for the analysis.

Table 2 Comparison of ESG ratings between 2023 and 2024 by total industry types. (N=210)

ESG Rating	2023		2024	
	N	Percentage (%)	N	Percentage (%)
N/A (Not Available)	45	21.43	17	8.10
BBB	18	8.57	19	9.05
A	57	27.14	60	28.57
AA	62	29.52	68	32.38
AAA	28	13.33	46	21.90
Total	210	100.00	210	100.00

Table 2 gives an overview of the number and percentages from 7 industries between 2023 and 2024 reveals an overall improvement in ESG performance. The proportion of firms without available ESG ratings markedly decreased from 21.43% to 8.10%, indicating better disclosure practices. In addition, the share of firms receiving high ratings (AA and AAA) increased from 42.85% in 2023 to 54.28%

in 2024. Meanwhile, lower-tier ratings (A and BBB) remained relatively stable. These results suggest that firms have increasingly emphasized sustainability practices and compliance with ESG standards, driven by regulatory and stakeholder expectations. (Show in Figure 2)

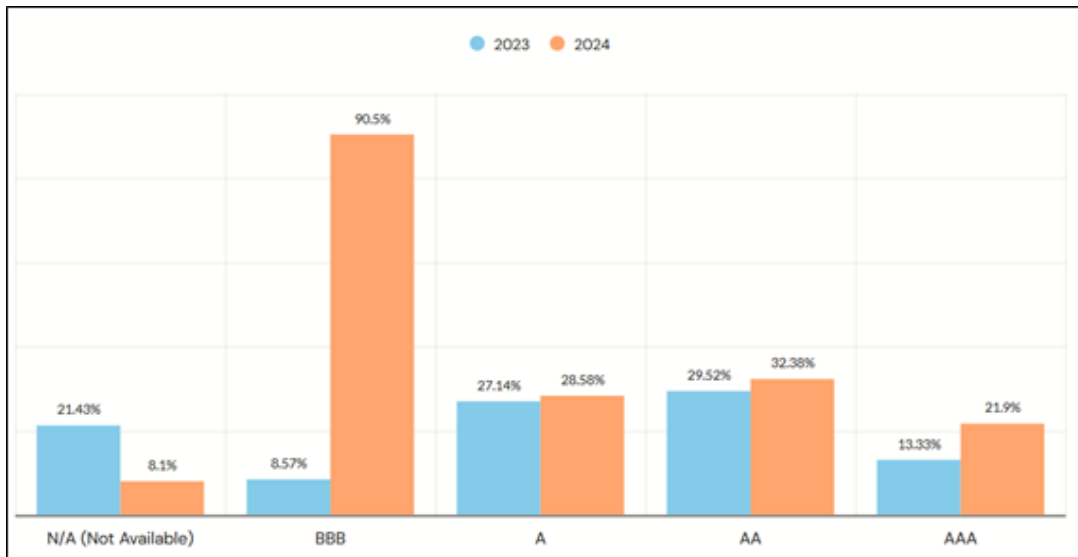


Figure 2 Comparison of ESG ratings between 2023 and 2024 by total industry types.

Table 3 ESG rating by industry type.

No. Industry Type	ESG Rating										Total Industry Types	
	N/A		BBB		A		AA		AAA		N	%
	N	%	N	%	N	%	N	%	N	%		
1	11	17.74	6	16.22	20	17.09	13	10.00	10	13.51	60	14.29
2	3	4.84	4	10.81	7	5.98	2	1.54	4	5.41	20	4.76
3	11	17.74	5	13.51	36	30.77	14	10.77	10	13.51	76	18.10
4	8	12.90	6	16.22	15	12.82	33	25.38	10	13.51	72	17.14
5	8	12.90	3	8.11	5	4.27	25	19.23	23	31.08	64	15.24
6	12	19.35	9	24.32	22	18.80	37	28.46	12	16.22	92	21.90
7	9	14.52	4	10.81	12	10.26	6	4.62	5	6.76	36	8.57
Total	62	14.76	37	8.81	117	27.86	130	30.95	74	17.62	420	100

Table 3 indicates notable differences in ESG performance across industries. The Services sector (No. Industry Type 6), which represents the largest group, shows the highest share of firms with AA ratings (28.46%), reflecting stronger ESG engagement compared with others. The Resources sector (No. Industry Type 5) stands out with the highest proportion of AAA ratings (31.08%), suggesting top-tier ESG performance among leading firms in this group. Meanwhile, the Consumer Products sector (No.

Industry Type 2) shows relatively weak ESG awareness, with low proportions in AA (1.54%) and a reliance on lower ESG categories such as BBB (10.81%). In addition, N/A ratings remain prevalent in Agriculture and food industry sector (17.74%) and Industrials sector (17.74%), indicating gaps in ESG disclosure in these sectors.

Overall, industries differ markedly in ESG quality, highlighting that sector characteristics may influence the level of ESG disclosure and performance.

**Table 4** Descriptive statistics. (N=420 firm-years)

Variable	Unit	N	Mean	Std. Dev.	Min	Max
Independent Variable						
ESG Disclosure	ESG Rating	420	-	-	-	-
Dependent Variables						
ROA	Return on Assets	420	7.07	7.22	-39.40	42.85
ROE	Return on Equity	420	8.79	11.38	-50.91	72.04
Tobin's Q	Tobin's Q	420	1.31	1.86	-0.11	27.61
Control Variables						
Log_TA	Total Assets (Million)	420	88,528.77	280,870.3	366.42	2,759,890.14
Ind. Type	Industry Type (Dummy)	420	-	-	-	-

Table 4 shows the descriptive statistics of the data set for the 420 firm-year observations. The mean values of Tobin's q are equal

to 1.31. Similarly, the mean of ROA, ROE and the total assets are equal to 7.07, 8.79 and 88,528.77, respectively.

Table 5 Pearson's correlation coefficient results

	ROA	ROE	Tobin' Q	Log_TA	ESG Disclosure
ROA	1				
ROE	0.9000***	1			
Tobin' Q	0.3331***	0.3267***	1		
Log_TA	-0.0830*	-0.0236	-0.0242	1	
ESG Disclosure	-0.0186	0.0421	-0.0737	0.4721***	1

Notes: ***, **, and * indicate statistical significance at the levels of 0.01, 0.05, and 0.10, respectively.

Data from Pearson's correlation analysis in Table 5, an examination of multivariate coherence, showed that the overall correlation coefficients between independent and

control variables remain below the common threshold (typically 0.70 or 0.80), suggesting that multicollinearity is unlikely to bias the subsequent regression models.

Table 6 Multivariate results for 2023-2024.

Total (industry, year)	Pane A: ROA		Pane B: ROE		Panel C: Tobin' Q	
	Model (1)	Model (2)	Model (3)	Model (4)	Model (5)	Model (6)
	FE	RE	FE	RE	FE	RE
ESG Disclosure	-0.170 (0.300)	0.0739 (0.251)	0.440 (0.611)	-0.802* (0.462)	-0.0409 (0.0576)	-0.0892* (0.0521)
Log_TA	4.372 (2.961)	-0.183 (0.299)	9.367 (6.030)	-0.131 (0.455)	-2.339*** (0.568)	-0.0190 (0.0775)

Total (industry, year)	Pane A: ROA		Pane B: ROE		Panel C: Tobin' Q	
	Model (1)	Model (2)	Model (3)	Model (4)	Model (5)	Model (6)
	FE	RE	FE	RE	FE	RE
Consumer Products		-4.460*		-4.218		-0.856
		(2.417)		(3.603)		(0.639)
Industriales		-5.001***		-5.415**		-0.889**
		(1.617)		(2.411)		(0.427)
Property and Construction		-4.712***		-3.902		-0.799*
		(1.637)		(2.440)		(0.433)
Resources		-6.155***		-8.340***		-0.618
		(1.717)		(2.559)		(0.454)
Services		-4.734***		-3.617		-0.0373
		(1.540)		(2.296)		(0.407)
Technology		-2.512		1.746		1.406***
		(1.951)		(2.909)		(0.516)
Constant	-35.02	12.80***	-83.23	12.00***	24.14***	2.027***
	(28.59)	(2.961)	(58.22)	(4.430)	(5.488)	(0.779)
R-squared	0.010		0.018		0.091	
Observations	420		420		420	
Number of firms	210		210		210	
Hausman test						
Prob>chi2	3.12		2.58		16.63	
	0.2102		0.2750		0.0002	

Notes: ***, **, and * indicate statistical significance at the levels of 0.01, 0.05, and 0.10, respectively. This table presents the estimated coefficients from the panel regression models examining the relationship between corporate ESG disclosure and financial performance for listed firms on the Stock Exchange of Thailand during the 2023–2024 period. Financial performance is measured using return on assets (ROA), return on equity (ROE), and Tobin's Q as the dependent variables. The Independent Variable of Interest is the ESG disclosure is measured using ESG rating. Control variables include firm size, proxied by the natural logarithm of total assets (Log_TA), and industry type dummies. Models (1), (3), and (5) utilize the Fixed-effect (FE) estimator, while Models (2), (4), and (6) employ the Random-effects (RE) estimator. The final model selection for interpretation is guided by the Hausman Specification Test results.

Multivariate results

Panel A of table 6 presents the multivariate regression results focusing on ROA, the primary measure of financial performance, as the dependent variable. Specifically, Model (1) employs the Fixed-effect (FE) panel regression estimator, while Model (2) utilizes the Ran-

dom-effect (RE) estimator. Both models assess the impact of the ESG rating, which serves as the independent variable proxying for ESG disclosure, alongside a vector of control variables. These controls include firm size, proxied by the natural logarithm of total assets (Log_TA), and industry type dummies. Turning to the



results for ROA (Panel A, Table 4), the coefficients for both the ESG disclosure and firm size (proxied by the natural logarithm of total assets, Log_TA) were found to be statistically insignificant in both the Fixed-effect (Model 1) and Random-effect (Model 2) specifications. However, when employing the Random-effect estimator (Model 2), the analysis reveals a statistically significant negative relationship between ROA and several industry dummy variables. Specifically, firms operating in the Consumer Products, Industrials, Property and Construction, Resources, and Services sectors exhibit significantly lower ROA compared to the reference industry, suggesting substantial industry-specific differences in operational profitability within the Thai context.

The analysis proceeds by examining ROE as the alternative measure of firm performance, with the corresponding results presented in Panel B of Table 6. Consistent with the ROA analysis, the ESG disclosure is included to capture the effect of corporate sustainability performance. In Model (4) (Random-effect), we observe that the coefficient for the ESG disclosure is statistically significant and negatively correlated with ROE ($\beta_{ESG} < 0$, $p < 0.10$). This negative association suggests that the costs associated with enhancing ESG performance currently outweigh the benefits, leading to a reduction in shareholder returns, a finding potentially driven by the early stages of sustainability adoption in the Thai market. Similar to the ROA results, the control variables for industry dummies show substantial heterogeneity across sectors, with significant negative coefficients observed specifically for

the Industrials and Resources sectors in the Random-effect model.

Finally, Panel C of Table 6 details the regression results using Tobin's Q as the market-based dependent variable (Models 5 and 6) to gauge the impact on firm valuation. The evidence indicates a statistically significant negative relationship between the ESG disclosure and Tobin's Q in Model (6) (Random-effect) ($\beta_{ESG} < 0$, $p < 0.10$). This result is consistent with the preliminary conclusion that the net effect of sustainability efforts, at the time of data collection, may be value-destroying rather than value-enhancing, possibly due to the market perceiving sustainability disclosures as a proxy for high operating costs or future regulatory burdens. Conversely, the control variable for firm size exhibits a robust and statistically significant positive coefficient in the Fixed-effects Model. This confirms the expectation that larger firms generally command a higher market valuation (Tobin's Q) on the Stock Exchange of Thailand.

None of the industry dummies showed statistical significance in the Tobin's Q specification, suggesting that the market-based valuation premium or discount is driven primarily by the firm-specific variables (ESG and size) rather than industry membership.

To ensure the consistency and efficiency of the panel data estimators, the Hausman specification test was systematically applied to determine the preference between Fixed-effects and Random-effects models for each dependent variable. The decision was based on the null hypothesis (H_0) that the individual-specific effects are uncorrelated with the ex-

planatory variables, making the Random-effect estimator both efficient and consistent.

1) Accounting-Based Performance (ROA and ROE): For the accounting-based measures, the Hausman test yielded p-values of 0.2102 for ROA and 0.2750 for ROE. Since both values markedly exceed the 0.05 significance level, we fail to reject the null hypothesis, indicating that firm-specific effects are independent of the explanatory variables. Consequently, the Random-effect estimator was selected as the statistically efficient and consistent model for analyzing the determinants of ROA and ROE.

2) Market-Based Performance (Tobin's Q): Conversely, the test for the Tobin's Q model produced a p-value of 0.0002, which is highly significant at the 1% level. This result mandates the rejection of the null hypothesis, suggesting that unobserved firm-level heterogeneity is correlated with the predictors. Therefore, the Fixed-effect estimator was adopted to mitigate omitted variable bias and ensure the internal validity of the market valuation analysis.

Discussion

Critical Appraisal of Empirical Evidence and Hypotheses Verification: This section provides a nuanced interpretation of the empirical results, exploring the underlying mechanisms that explain the observed relationships between ESG disclosure and financial performance metrics.

1) H1: ESG disclosure has a relationship with ROA.

The empirical analysis reveals a statistically insignificant relationship between ESG dis-

closure and ROA. This finding is consistent with the work of Velte (2017, pp. 169-178) which posited that ESG performance may not yield a significant impact on operational efficiency in the short term. This study extends the existing understanding by contextualizing the findings within the Thai market. It suggests that ESG disclosure under the "One Report" framework has not yet been translated into immediate internal operational efficiency. This lack of significance implies that corporate resources are primarily allocated toward ensuring reporting compliance (compliance-based) rather than driving substantive improvements in operational processes.

2) H2: ESG disclosure has a relationship with ROE.

In contrast to the operational metric, the study finds a significant negative relationship between ESG disclosure and ROE. This result contradicts the sustainability-performance link proposed by Oluwakemi and Mishelle (2025, pp.1-24) and Friede, Busch and Bassen (2015, pp. 210-233) which suggests that sustainability initiatives generally enhance profitability and shareholder value. Our research identifies a critical "cost channel" where the financial burden associated with ESG implementation—such as the costs of adopting higher governance standards or conducting external verifications—acts as a significant short-term strain on equity returns. This observation aligns with Agency Cost Theory, where the diversion of resources toward ESG compliance may outweigh the immediate financial benefits to shareholders.



3) H3: ESG disclosure has a relationship with Tobin's Q.

The analysis also demonstrates a significant negative relationship between ESG and Tobin's Q. This outcome indicates a "value-destroying" perception within the Thai capital market during the 2023–2024 period. It appears that investors are more concerned with the risks of increased regulatory burdens and the associated costs than with the potential for long-term growth driven by sustainability. These findings are consistent with recent evidence from other emerging markets, such as Safitri and Paramita (2025), pp. 29-36, indicating that investors in these regions continue to prioritize immediate financial profitability over sustainability metrics that may still be perceived as ambiguous or financially burdensome.

The empirical findings of this study reveal a heterogeneous and generally pessimistic relationship between ESG disclosure and financial performance in Thailand during the 2023–2024 period. Specifically, the strong negative correlation observed between the ESG disclosure and both ROE and Tobin's Q strongly supports the Neoclassical View (Friedman, 1970, pp. 122-126) and the Agency Cost Theory (Jensen and Meckling, 1976, pp. 305–360), particularly in the short-term context of an emerging market.

The cost channel reveal that the significant negative β on ROE (Model 3) provides accounting-based evidence that the immediate financial burden of adopting and disclosing ESG practices such as implementing new governance structures or purchasing more expen-

sive, cleaner inputs is being primarily absorbed by shareholders, thus depressing the ROE (Maji and Lohia, 2024, pp. 109-131). This finding aligns with the notion that ESG investments, if not material to the core business, represent a misallocation of resources.

Similarly, market perception and value destruction demonstrate the negative relationship with the market-based measure, Tobin's Q (Model 6), suggests that the Thai capital market is currently pricing in this net cost. The market may perceive high ESG ratings as a leading indicator of compliance costs or regulatory risk rather than a source of competitive advantage in the short window of analysis (Safitri and Paramita, 2025, pp. 29-36). This observation echoes findings in other emerging markets where investors tend to prioritize traditional financial metrics and remain skeptical until the economic benefits of ESG materialize (Rusmana and Sembiring, 2025, pp. 283-298). The insignificance of ROA further reinforces this, indicating that ESG disclosure effects are not yet captured in operating efficiency, leaving the negative impact on ROE and Tobin's Q to dominate the short-run valuation. This confirms the notion that the relationship is highly contextual and not universally positive (Aydoğmuş, Gülay, and Ergun, 2022, pp. 119-127).

Conclusion

This study provides a comprehensive empirical analysis of the relationship between ESG disclosure and financial performance within the unique institutional context of the Thai capital market during the 2023–2024 transition period. By employing a robust panel

data framework, the findings unveil a nuanced "Transition Paradox" where sustainability efforts have yet to be translated into immediate financial premiums. The conclusions are categorized into the following thematic dimensions to offer structural clarity and academic rigor:

Economic and Market Mechanisms: The findings substantiate an "Efficiency Lag" driven by the Operational Cost Channel, where immediate compliance costs associated with the "One Report" framework outweigh short-term economic gains. Simultaneously, the regulatory risk and perception channels suggest that investors interpret aggressive disclosure as a signal of future financial burden rather than value creation, reflecting a prevailing short-termism in emerging markets.

Strategic and policy implications: To bridge this gap, a shift from "check-box compliance" toward strategic materiality is essential. Management must integrate ESG into core

business models to convert compliance assets into competitive advantages, while regulators should provide positive incentives and centralized data platforms to mitigate the "Transition Risk Premium" and reduce information asymmetry.

This research highlights the critical importance of utilizing panel data analysis to control for unobserved firm-level heterogeneity, particularly through the systematic application of the Hausman specification test. While this study identifies a short-term friction period, future research should employ longitudinal datasets to capture the long-term dynamic evolution of the ESG-performance link. Additionally, incorporating advanced econometric techniques, such as the System Generalized Method of Moments (GMM), would further clarify causal pathways and manage potential endogeneity concerns in the rapidly evolving ESG landscape of emerging economies.

Bibliography

- Aydođmuş, M., Gülay, G. and Ergun, K. (2022). Impact of ESG performance on firm value and profitability. *Borsa İstanbul Review*, 22(2), S119-127.
- Azizah, F., Setyahuni, S. W., Yovita, L. and Oktavia, V. (2025). Integration of ESG, profitability, and good corporate governance: Strategy for increasing firm value. *Jurnal Ilmu Manajemen dan Ekonomika*, 17(2), 113-132.
- Brigham, E. F., and Houston, J. F. (2021). **Fundamentals of financial management: Concise by Cengage** (15th ed.). Boston: Cengage Learning.
- Chininga, E., Alhassan, A. L. and Zeka, B. (2024). ESG ratings and corporate financial performance in South Africa. *Journal of Accounting in Emerging Economies*, 14(3), 692-713.
- Chung, K. H. and Pruitt, S. W. (1994). A simple approximation of Tobin's Q. *Financial management*, 23(3), 70-74.
- Eccles, R. G., Ioannou, I. and Serafeim, G. (2014). The impact of corporate sustainability on organizational processes and performance. *Management Science*, 60(11), 2835-2857.
- Freeman, R. E. (2010). **Strategic management: A stakeholder approach**. Cambridge: Cambridge University Press.



- Friede, G., Busch, T. and Bassen, A. (2015). ESG and financial performance: Aggregated evidence from more than 2000 empirical studies. **Journal of sustainable finance & investment**, 5(4), 210-233.
- Friedman, M. (September 13, 1970). The social responsibility of business is to increase its profits. **New York Times Magazine**, 122-126.
- Gillan, S. L., Koch, A. and Starks, L. T. (2021). Firms and social responsibility: A review of ESG and CSR research in corporate finance. **Journal of Corporate Finance**, 66, 101889.
- Jindaluang, P. (2025). The impact of sustainability disclosure on financial performance: Strategic communication for enhancing transparency in Thai listed companies. **Journal of Business, Innovation and Sustainability**, 20(2), 96-110.
- Jensen, M. C. and Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. **Journal of Financial Economics**, 3(4), 305-360.
- Jiamsagul, S. and Sornbandit, W. (2025). ESG performance and audit fees: A case of SET 100 Thailand. **Journal of Business, Innovation and Sustainability**, 20(3), 115-131.
- Khan, M., Serafeim, G. and Yoon, A. (2016). Corporate sustainability: First evidence on materiality. **The accounting review**, 91(6), 1697-1724.
- Kotsantonis, S., Pinney, C. and Serafeim, G. (2016). ESG integration in investment management: Myths and realities. **Journal of Applied Corporate Finance**, 28(2), 10-16.
- Landi, G. and Sciarelli, M. (2019). Towards a more ethical market: The impact of ESG rating on corporate financial performance. **Social responsibility journal**, 15(1), 11-27.
- Maji, S. G. and Lohia, P. (2024). Unveiling the financial effect of ESG disclosure on financial performance in India: Climate-sensitive corporates' perspective. **International Journal of Ethics and Systems**, 41(1), 109-131.
- Manapreechadeelert, P., Dampitakse, K. and Ngudgratoke, S. (2024). Impact of Environmental, Social and Governance (ESG) performance on firm performance in Thailand stock exchange: Interaction effect of managerial efficiency. **ABAC Journal**, 44(4), 483-499.
- Nguyen, T. L. A. and La, T. T. T. (2025). ESG and firm value in Vietnam: The moderating role of profitability. **International Journal of Analysis and Applications**, 23, 234.
- Oluwakemi, A. A. and Mishelle, D. (2025). Effect of ESG financial materiality on financial performance of firms: Does ESG transparency matter?. **Journal of Risk and Financial Management**, 18(6), 315.
- Prabawati, P. I. and Rahmawati, I. P. (2022). The effects of Environmental, Social, and Governance (ESG) scores on firm values in ASEAN member countries. **Journal Akuntansi Dan Auditing Indonesia**, 26(2), 119-129.
- Priyanto, P. and Suhandi, N. P. M. (2023). Unraveling the link: Relationship firm value shapes ESG ratings. **Journal of Accounting and Business Education**, 8(2), 61-71.



- Rusmana, R. A. R. and Sembiring, F. M. (2025). The effect of ESG performance on firm value with financial performance as mediation in companies listed on IDX ESG leaders in 2020-2023. **Journal Of Management, Accounting, General Finance and International Economic Issues**, 4(2), 283–298.
- Ross, S. A., Westerfield, R. W. and Jordan. (2013). **Fundamentals of corporate finance** (10th ed.). McGraw Hill.
- Safitri, R. N. and Paramita, V. S. (2025). The influence of Environmental Social Governance (ESG), profitability, and capital structure on firm value in IDX ESG leaders (2020-2023). **Sinergi International Journal of Economics**, 3(1), 19-36.
- Stock Exchange of Thailand. (2025a). **SET ESG ratings**. Retrieved September 11, 2025, from <https://setsustainability.com//libraries/1258/item/set-esg-ratings>
- Stock Exchange of Thailand. (2025b). **Sustainability reporting guide for listed companies. SET sustainability**. Retrieved September 11, 2025, from https://setsustainability.com/libraries/1119/item/SD_REPORTING
- Sustainability Disclosure and Reporting. (2025). **In SET**. Retrieved November 1, 2025, from <https://setsustainability.com/page/disclosure>
- Tansuwan, R., Meeampol, S., Laohavichien, T. and Wannarat, S. (2025). The relationship between environmental accounting information disclosure and corporate sustainability in companies listed on the Stock Exchange of Thailand. **Journal of Business, Innovation and Sustainability**, 20(2), 56–71.
- Velte, P. (2017). Does ESG performance have an impact on financial performance? Evidence from Germany. **Journal of global responsibility**, 8(2), 169-178.
- World Bank. (2023). **ESG disclosure assessment of Thailand’s listed companies and recommendations for policy development**. Retrieved October 8, 2025, from <https://documents1.worldbank.org/curated/en/099032624052515227/pdf/P1795971dc582706%2071bd9e1114d45321c25.pdf>
- Xu, Y., Wang, S., Wang, T., Fan, Q. and Wong, M. C. S. (2025). ESG ratings, agency cost and corporate performance: The case of Chinese firms in 2009-2023. **Sustainable Futures**, 10(2025), 101148.