



Disclosure (CED) and Environmental, Social, and Governance (ESG) practices, has become an essential instrument. (Siddique et al., 2021).

From a theoretical standpoint, stakeholder theory contends that companies can enhance legitimacy and strengthen stakeholder relationships by disclosing environmental and sustainability-related information. Similarly, signaling theory argues that sustainability disclosures provide positive signals regarding corporate quality and long-term prospects, thereby influencing investor perceptions and firm value. As a result, Carbon Emission Disclosure and ESG performance have increasingly attracted scholarly attention as determinants of market valuation and financial performance (Alsaifi et al., 2020; Nyahuna & Doorasamy, 2023).

Prior studies generally suggest that sustainability-related disclosures play a significant role in enhancing corporate performance and value creation. Research focusing on Carbon Emission Disclosure indicates that such transparency helps reduce information asymmetry and strengthens investor confidence. Meanwhile, studies on ESG emphasize its contribution to operational efficiency and long-term financial sustainability (Bedi & Singh, 2024; Shen et al., 2020). Beyond sustainability factors, corporate growth indicators such as Sales Growth are also widely considered key determinants of corporate performance, as they reflect a company's capacity to expand its operations, increase revenue generation, and ultimately enhance shareholder value (Nursulistyo et al., 2022; Phuong et al., 2024).

Despite the growing body of literature, empirical evidence remains inconclusive. Prior studies have reported mixed findings regarding the influence of Carbon Emission Disclosure, ESG performance, and Sales Growth on both market valuation and financial performance. In addition, most existing studies examine these factors separately and focus on a single performance dimension. Limited attention has been given to investigating market valuation and financial performance simultaneously, particularly within the ASEAN energy sector. Furthermore, although Firm Size is frequently associated with organizational resources, stakeholder visibility, and disclosure capacity, its role as a boundary condition in the relationship between sustainability initiatives, corporate growth, and firm outcomes remains underexplored (Saputra & Rahman, 2024; Sitorus, 2024).

The objective of this investigation is to address the deficiencies by investigating the impact of Carbon Emission Disclosure, ESG, and Sales Growth on market valuation and financial performance, with Firm Size serving as a moderate variable. The originality of this research is reflected in its integrated framework that combines sustainability disclosure and growth-related factors, its concurrent evaluation of market-based and accounting-based performance measures, and its investigation of the role of firm size as a moderating condition in the ASEAN energy sector across five nations during the 2022–2024 period. In line with these contributions, the study aims to analyze the impacts of Carbon Emission Disclosure, ESG performance, and Sales Growth on market valuation and financial performance, as well as to assess whether Firm Size moderates these relationships.

## **LITERATURE REVIEW**

### **Stakeholder Theory**

A company's success is based on how well it satisfies the demands of its various stakeholders, including investors, clients, workers, regulators, and the general public, in addition to its capacity to make money (Donaldson & Preston, 1995). As concern over environmental and social issues grows among stakeholders, firms are increasingly required to demonstrate transparency and accountability through sustainability disclosures and responsible corporate practices. Companies that are able to respond effectively to these expectations tend to enhance their reputation and support the continuity of long-term business sustainability (Saputra & Rahman, 2024).

Within the scope of this research, Carbon Emission Disclosure, ESG performance, and Sales Growth can be interpreted as strategic tools used by firms to fulfill stakeholder expectations. A dedication to environmental responsibility is demonstrated by its public disclosure of emissions, and its successful management of environmental, social, and governance aspects is demonstrated by its outstanding ESG

performance. In addition, consistent sales growth indicates the firm's ability to meet market demand and sustain stakeholder trust (Eccles et al., 2014; Saputra & Rahman, 2024). Therefore, it is anticipated that these elements will affect the firm's value and financial performance.

### **Signaling Theory**

Signaling Theory explains how firms communicate relevant information between investors and management by communicating pertinent information to outside parties. (Spence, 1973) Since managers possess more information about a company's prospects than outside stakeholders, firms use disclosures and performance indicators as signals to convey their quality and future potential (Connelly et al., 2011). Positive signals are expected to improve investor confidence and influence market perceptions of the company (Shen et al., 2020).

Within this framework, carbon emission disclosure, ESG performance, and sales growth serve as important signals regarding a firm's sustainability commitment and business prospects. Businesses may be seen as better equipped to manage risks and generate long-term value if they voluntarily publish environmental information and exhibit high ESG performance. Likewise, consistent sales growth signals operational strength and future profitability (Shen et al., 2020). Therefore, these indicators may contribute to improved firm value and financial performance, particularly when supported by sufficient organizational resources and capabilities.

### **Carbon Emission Disclosure and Market Valuation**

CED represents a firm's level of transparency in reporting the environmental consequences of its operational activities (Muhammad & Aryani, 2021). According to Signaling Theory, environmental disclosure functions as a signal that helps reduce information asymmetry between corporate management and investors (Yuliandhari & Ayustyara, 2023). Through carbon disclosure, companies communicate their commitment to environmental management, which may influence investors' perceptions and subsequently affect market valuation (Kurnia et al., 2021).

Nevertheless, the empirical data on the relationship between market valuation and carbon disclosure remains inconsistent and conflicting. In accordance with prior research, companies with a strong industry profile can enhance positive market perceptions through carbon emission disclosure. Investors often interpret environmental publications as a proof of sustainability commitment and corporate responsibility, which can enhance a firm's attractiveness in capital markets (Yuliandhari & Ayustyara, 2023). Therefore, carbon emission disclosure is expected to influence market valuation in energy companies operating in ASEAN countries.

*H<sub>1</sub>: Carbon Emission Disclosure influences market valuation*

### **Carbon Emission Disclosure and Financial Performance**

A form of corporate responsibility that demonstrates transparency regarding environmental impacts is carbon emission disclosure (Bedi & Singh, 2024). This type of disclosure can improve corporate legitimacy and reinforce the trust of various stakeholders (Alsaifi et al., 2020). Firms are anticipated to satisfy stakeholder information requirements, which encompass sustainability-related information and accountability for environmental impacts, in accordance with Stakeholder Theory (Kamila & Wulandari, 2024).

Nevertheless, environmental disclosure may also be accompanied by higher compliance costs as well as additional investments in environmental initiatives. Bedi and Singh (2024) found that is significantly related to financial performance, suggesting that sustainability-related actions may influence profitability outcomes. Therefore, carbon emission disclosure is expected to have an effect on the financial performance of energy sector companies.

*H<sub>2</sub>: Carbon Emission Disclosure influences financial performance.*

### **ESG Performance and Market Valuation**

Environmental, Social, and Governance (ESG) disclosure has increasingly become an important consideration for investors when evaluating corporate sustainability and long-term value creation (Prabawati & Rahmawati, 2022). Under Signaling Theory, ESG information provides signals regarding the quality of management, corporate responsibility, and future business prospects. As investors increasingly incorporate sustainability considerations into investment decisions, ESG disclosure may affect market perceptions and valuation (Phuong et al., 2024).

Previous studies have produced mixed results regarding this relationship. ESG disclosure negatively affects market valuation in the energy sector, suggesting that investors may perceive sustainability initiatives as additional costs in the short term (Listianah & Kurniasih, 2025). However, ESG disclosure remains an important source of information that can shape market expectations regarding future corporate performance (Ali et al., 2025).

*H<sub>3</sub>: ESG influences market valuation.*

### **ESG Performance and Financial Performance**

According to Stakeholder Theory, organizations that are capable of effectively managing and responding to the interests and expectations of their stakeholders are more likely to achieve sustainable long-term performance. In this context, ESG practices serve as an indicator of a firm's dedication to responsible corporate conduct, as well as its ability to identify, manage, and reduce the hazards associated with governance, social, and environmental aspects. Such practices can contribute to improved stakeholder relationships, operational efficiency, and corporate reputation (Soesetio et al., 2024).

Empirical evidence suggests that ESG implementation can affect financial outcomes through enhanced resource management and risk mitigation. Qofi'ah & Lismawati (2025) in particular, firms that are capable of incorporating sustainability initiatives into their business strategies, underscored the significance of ESG practices in bolstering financial performance. Therefore, ESG is expected to influence financial performance.

*H<sub>4</sub>: ESG influences financial performance.*

### **Sales Growth and Market Valuation**

A company's capacity to boost earnings and broaden its market reach is reflected in sales growth (Yuliani, 2021). According to Signaling Theory, growth in sales provides positive information to investors regarding future prospects, operational effectiveness, and competitive advantage. Higher sales growth may strengthen investor confidence and contribute to higher market valuation (Arianti, 2022).

Empirical studies support the relevance of sales growth in explaining market value. Budiharjo et al. (2023) argued that increasing sales performance can positively influence investor perceptions regarding future cash flows and business sustainability. Consequently, sales growth is expected to affect market valuation.

*H<sub>5</sub>: Sales growth influences market valuation.*

### **Sales Growth and Financial Performance**

Sales growth is commonly regarded as an important indicator of operational success and business expansion (Pradana & Imelda, 2023). Sustained increases in sales indicate strong market demand and effective business strategies. Higher sales volumes may improve profitability by generating greater revenue and enhancing economies of scale (Santioso, 2025).

Previous studies found that financial performance is significantly impacted by sales growth. Increasing sales growth is associated with better financial outcomes since they allow businesses to make better use of their resources and increase earnings (Cahyani & Puspitasari, 2023; Ramli & Yusnaini, 2022).

*H<sub>6</sub>: Sales growth influences financial performance.*

### **The Moderating Role of Firm Size**

A company's operations, resources, and market presence are all reflected in its size (Sitorus, 2024). Compared to smaller businesses, larger companies typically have stronger governance frameworks, more financial resources, and greater public visibility (Bedi & Singh, 2024). Consequently, firm size may influence how stakeholders and investors respond to sustainability disclosures and corporate performance indicators.

From the perspective of Stakeholder Theory and Signaling Theory, larger firms are often under greater public scrutiny and therefore tend to disclose more comprehensive information. Their sustainability disclosures are also perceived as more credible because they have sufficient resources to implement environmental and social initiatives effectively (Bedi & Singh, 2024). Consequently, the influence of CED, ESG disclosure, and sales growth on both market valuation and financial performance may be amplified by firm scale.

The moderating influence of company size across different connections is likewise supported by empirical evidence. According to Sitorus (2024), the relationship between market valuation and environmental performance is strengthened by corporate size. Similarly, Bedi & Singh (2024) shown that the association between financial performance and CED is moderated by firm size. Fathihani et al. (2025) and Qofi'ah & Lismawati (2025) indicates that larger companies are better able to increase the beneficial effects of ESG practices on business outcomes. Meanwhile, studies by Pradana & Imelda (2023) and Yuliyani et al. (2025) highlighted the contextual role of firm size in explaining how sales growth affects firm performance. As a result, the following moderating theories are put forth:

*H<sub>7</sub>: Firm size moderates the relationship between Carbon Emission Disclosure and market valuation.*

*H<sub>8</sub>: Firm size moderates the relationship between Carbon Emission Disclosure and financial performance.*

*H<sub>9</sub>: Firm size moderates the relationship between ESG and market valuation.*

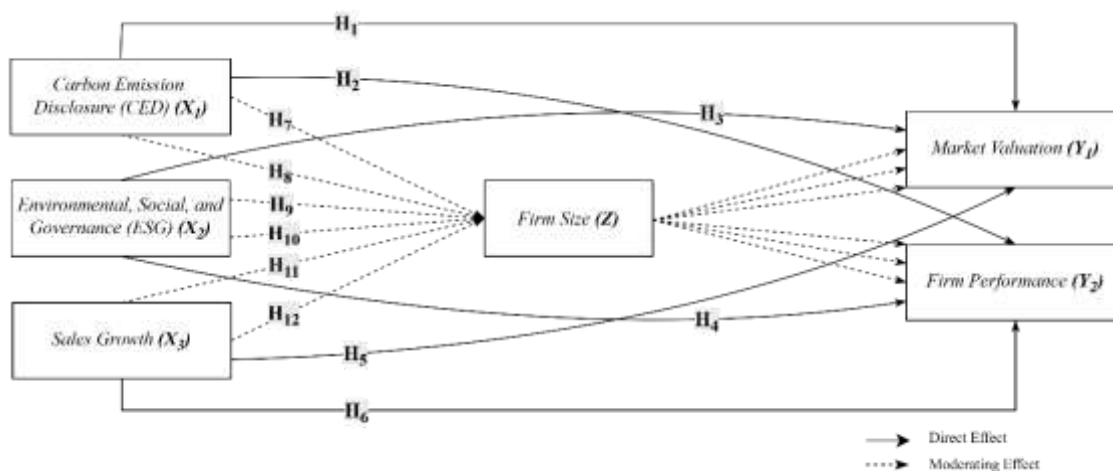
*H<sub>10</sub>: Firm size moderates the relationship between ESG and financial performance.*

*H<sub>11</sub>: Firm size moderates the relationship between sales growth and market valuation.*

*H<sub>12</sub>: Firm size moderates the relationship between sales growth and financial performance.*

### **Research Framework**

Based on the literature review and the hypotheses developed, the research framework is illustrated in Figure 1 below. This framework outlines the relationship between the independent variables, the dependent variables, and the moderating role of firm size.



**Figure 1. Research Framework**  
Source: Author’s Own Elaboration (2026)

## RESEARCH METHOD

This study adopts a quantitative explanatory research design to investigate the effects of Carbon Emission Disclosure (CED), ESG performance, and Sales Growth on Market Valuation and Financial Performance, with Firm Size serving as a moderating variable. Quantitative explanatory research is appropriate for analyzing and testing causal relationships among variables using statistical techniques (Creswell, 2023; Sekaran & Bougie, 2016).

Companies in the energy sector listed on the stock exchanges of Indonesia, Malaysia, Singapore, Thailand, and the Philippines during the 2022–2024 period constitute the population of this study. Purposive sampling was used to choose the sample based on the following standards: (1) companies classified in the energy sector, (2) companies continuously listed during the observation period, and (3) companies providing complete information regarding carbon emission disclosure, ESG performance, sales growth, firm size, market valuation, and financial performance. Information was gathered from stock exchange publications, annual reports, sustainability reports, and the Refinitiv Eikon database. 141 firm-year observations made up the final sample based on the sampling criteria.

The data were analyzed using panel data regression and Moderated Regression Analysis (MRA) to investigate the direct and moderating relationships among the variables. Before hypothesis testing, the most appropriate panel data estimation model was determined through model selection procedures, including the Chow test, Hausman test, and Lagrange Multiplier test. Furthermore, multicollinearity and heteroscedasticity tests were conducted to ensure the robustness and reliability of the regression model. The moderating effect was then evaluated by adding interaction terms between each independent variable and firm size.

## RESULT AND DISCUSSION

### Descriptive Statistics

The descriptive statistics for every variable used in this investigation are shown in Table 1. The results indicate variations in CED, ESG, sales growth, firm size, market valuation, and financial performance among energy businesses operating in five ASEAN nations between 2022–2024 period. The observed variation suggests differences in sustainability practices, growth opportunities, and financial conditions across firms.

**Tabel 1. Descriptive Statistics**

Variable	Mean	Max	Min	Std. Deviation	N
Y1	1.056	2.480	0.280	0.371	141
Y2	3.615	37.910	-163.33	17.887	141
X1	12.268	19.587	10.799	2.403	141
X2	56.648	85.590	8.450	18.160	141
X3	0.190	1.410	-0.546	0.372	141
Z	21.171	29.182	14.407	14.407	141
X1Z	3.630	24.362	-12.560	6.169	141
X2Z	22.549	221.771	-28.524	48.234	141
X3Z	-0.012	2.581	-2.769	0.734	141

Source: Research Data Processing (2026)

**Classical Assumption Test**

Classical assumption tests are conducted to ensure the econometric viability of the regression model before hypothesis testing. However, not all tests are required, as their necessity depends on the nature of the data and specific model assumptions. Since this study employs panel data, tests such as linearity, normality, and autocorrelation are considered irrelevant or inherently satisfied (Basuki, 2021). Consequently, this research restricts its classical assumption testing solely to multicollinearity and heteroskedasticity to maintain methodological precision.

**Multicollinearity Test**

The relationships among the independent variables were assessed using a multicollinearity test. The results indicate that every correlation coefficient between the independent variables, moderating variable, and interaction factors is less than 0.80 threshold. As a result, the model is not affected by multicollinearity, which suggests that each variable contributes unique information to the regression analysis.

**Heteroscedasticity Test**

The stability of the residual variance was examined through a heteroscedasticity test. The results indicate that the Chi-Square probability values were 0.2778 for the Tobin's Q model and 0.3160 for the ROA model. Since both results are higher than the significance level of 0.05, the homoscedasticity null hypothesis is accepted. Accordingly, the regression models are free from heteroscedasticity and are considered appropriate for next statistical analysis.

**Panel Data Model Selection****Tabel 3. Panel Data Model Selection**

Model	Chow Test	Hausman Test	LM Test	Selected Model
Main Model 1 (Tobin's Q)	FEM	REM	REM	REM
Moderation Model 2 (Tobin's Q)	FEM	REM	REM	REM
Main Model 3 (ROA)	FEM	FEM	-	FEM
Moderation Model 4 (ROA)	FEM	REM	REM	REM

Source: Research Data Processing (2026)

Using the Chow test, Hausman test, and Lagrange Multiplier (LM) test, the panel data model selection procedure was undertaken. The results suggest that the Random Effect Model (REM) was chosen for Moderation Model 4, Moderation Model 2, and Main Model 1. Meanwhile, the Fixed Effect Model (FEM) was selected for Main Model 3. Therefore, subsequent analyses were estimated using the selected model for each specification.

**Coefficient of Determination (R<sup>2</sup>) and F-Test**

**Table 2. Coefficient of Determination (R<sup>2</sup>) and F-Test**

Model	Dependent Variable	Adjusted R <sup>2</sup>	Prob (F-Statistic)
Main Model 1	Tobin's Q	0.0807	0.0022
Moderation Model 2	Tobin's Q	0.1520	0.0001
Main Model 3	ROA	0.4380	0.4380
Moderation Model 4	ROA	0.0772	0.0128

Source: Research Data Processing (2026)

Table 2 presents the Prob(F-statistic) values are below the 5% significance level, indicating that all models are statistically significant and appropriate for hypothesis testing. The Adjusted R<sup>2</sup> values range from 0.0772 to 0.4380, suggesting varying explanatory power across the estimated models. The highest explanatory power is observed in Model 3 (ROA), while the lowest is found in Model 4 (ROA with moderation).

**Regression Results**

**Table 4. Regression Results**

Variable	Main TQ (1)	Moderating TQ (2)	Main ROA (3)	Moderating ROA (4)
CED	0.0259 (0.1764)	0.0008 (0.9699)	0.0738 (0.9798)	1.1011 (0.3507)
ESG	-0.003 (0.1763)	-0.0041 (0.0640)	0.7748 (0.0080)	0.1620 (0.2113)
Sales Growth	0.1206* (0.0007)	0.1306* (0.0002)	7.5105* (0.0268)	8.4693* (0.0090)
Firm Size	-	0.0628* (0.0062)	-	-1.3782 (0.2659)
CED x Size	-	-0.0007 (0.9345)	-	1.3861* (0.0107)
ESG x Size	-	-0.0003 (0.6874)	-	-0.1386* (0.0201)
SG x Size	-	0.0174 (0.3509)	-	-1.6530 (0.3446)

**Notes:** Coefficients are reported outside parentheses, while p-values are reported inside parentheses. \* indicates significance at the 5% level.

Source: Research Data Processing (2026)

**The Effect of Carbon Emission Disclosure on Market Valuation**

CED has no appreciable effect on market valuation, according to a probability value of 0.1764, which is higher than the 5% significance level. Although the coefficient is positive, the effect is statistically insignificant, suggesting that investors in ASEAN energy companies do not consider carbon emission disclosure as a primary factor in assessing firm value.

This result could be explained by Signaling Theory, which argues that information only influences investor decisions when it is perceived as relevant and capable of reducing uncertainty. Financial metrics, profitability, and growth potential may be more important to investors than environmental disclosure policies. Consequently, carbon emission disclosure alone may not be sufficient to increase market valuation. This finding is consistent with Sitorus (2024) and Nurbaiti & Rahayu (2023) who also reported that carbon emission disclosure does not significantly influence firm value.

**The Effect of Carbon Emission Disclosure on Financial Performance**

CED is not significantly associated with financial performance, as indicated by a probability value of 0.9798 (> 0.05). According to this research, energy companies in five ASEAN nations did not see an increase in profitability between 2022-2024 as a result of carbon disclosure.

One possible explanation is that the costs associated with carbon reporting and environmental compliance may outweigh the short-term financial benefits obtained by firms. As result, the effect of carbon disclosure on profitability is not immediately observable. his result is in line with the findings of Kamila & Wulandari (2024) and Siddique et al. (2021) who also reported that financial performance is not greatly impacted by carbon emission disclosure.

### **The Effect of ESG on Market Valuation**

A probability value of 0.1763 ( $> 0.05$ ) shows that market valuation is not much impacted by ESG. Accordingly, ESG is not proven to influence Tobin's Q of energy sector firms in five ASEAN countries between 2022 and 2024. This finding suggests that investors may not yet place strong emphasis on ESG information when assessing firm value.

A possible explanation is that the advantages of ESG implementation, such as enhanced corporate reputation, better risk management, and stronger stakeholder relationships, tend to materialize in the long term and may not show up right away in market valuation. In addition, investors in the ASEAN energy sector could still give more weight to corporate prospects and financial fundamentals. This finding is consistent with Yip & Lau (2024) who found that under specific market circumstances and firm attributes, ESG has no discernible impact on firm value.

### **The Effect of ESG on Financial Performance**

ESG has a positive and significant effect on financial performance, as indicated by a probability value of 0.0080 (less than 0.05) and a positive regression coefficient of 0.774821. This indicates that ESG is proven to improve the financial performance of energy sector companies in five ASEAN countries during the 2022–2024 period. This finding suggests that companies with stronger ESG practices tend to achieve higher profitability.

Stakeholder theory, which contends that businesses that successfully address stakeholder interests are more likely to win support that improves organizational performance, is supported by this study. Effective ESG implementation can strengthen corporate reputation, increase investor confidence, improve risk management, and reduce information asymmetry through better governance practices. These advantages may contribute to improved operational efficiency and financial outcomes. This result is in line with Le (2024), who found that ESG implementation improves overall financial performance and business profitability.

### **Effect of Sales Growth on Market Valuation**

The market valuation is considerably and favorably influenced by sales growth, as evidenced by a positive regression coefficient of 0.120683 and a probability value of 0.0007. Therefore, Sales Growth is proven to increase market valuation, among energy sector in five ASEAN countries during the 2022–2024 period. According to this research, businesses with robust sales growth are valued more by investors since they show the company's capacity to grow its operations and create new revenue streams.

Signaling theory, which contends that business information acts as a signal to investors regarding a company's future prospects, is consistent with this outcome. Higher sales growth signals business expansion, increasing market demand, and stronger competitive performance, thereby creating positive investor expectations about future performance. As a result, companies with consistent sales growth typically receive higher valuations from investors. This finding is supported by Yeni et al. (2025) and Yuliyani et al. (2025) who found that sales growth reflects favorable business prospects and contributes positively to firm value.

### **Effect of Sales Growth on Financial Performance**

A probability value of 0.0133 and a positive regression coefficient of 8.088073 show that sales growth has a positive and significant effect on financial performance. Therefore, Sales Growth is proven to improve financial performance, as measured by Return on Assets (ROA), among energy sector companies in five ASEAN countries during the 2022–2024 period. This conclusion shows that organizations with faster sales growth typically make more money off of their assets.

This finding is consistent with signaling theory, which maintains that information about a firm's growth functions as a positive signal about its prospects going forward. Increased demand, profitable business expansion, and efficient operational performance are all indicators of higher sales growth, all of which lead to better financial results. Businesses are in a better position to make greater use of their resources and enhance profits as revenue rises. This outcome is consistent with Pradana & Imelda (2023) findings that sales growth positively influences corporate financial performance by enhancing revenue generation and operational effectiveness.

#### **The Moderating Role of Firm Size on the Relationship between CED and Market Valuation**

The interaction term between CED and Firm Size does not moderate the relationship between CED and market valuation, as evidenced by a probability value of 0.9345 ( $> 0.05$ ). Consequently, H7 is rejected. The impact of CED on Tobin's Q between major and small energy companies in five ASEAN nations between 2022 and 2024 is not different, as per this research.

This result indicates that investors do not place greater importance on carbon emission disclosure solely because it is reported by larger firms. Instead, market participants may continue to prioritize profitability, growth opportunities, and future business prospects when assessing firm value. As a result, the effect of CED on market valuation cannot be strengthened by size alone. This finding is in line with Puspita & Budiasih (2024) conclusion that business scale does not necessarily improve the relationship between corporate disclosures and firm value. Nevertheless, the outcome is in stark contrast to the findings of Bedi & Singh (2024) who found that the impact of carbon disclosure on market valuation is exacerbated by the size of the firm, suggesting that differences in research context, regulatory environment, and investor awareness may explain the inconsistent findings.

#### **The Moderating Role of Firm Size on the Relationship between CED and Financial Performance**

Firm Size significantly moderates the relationship between CED and financial performance, as indicated by a probability value of 0.0107 ( $< 0.05$ ) and a positive interaction coefficient of 1.38628. Therefore, H8 is approved. This finding implies that firm scale amplifies the favorable effect of carbon emission disclosure on financial performance, as assessed by ROA. Larger companies tend to obtain greater economic benefits from carbon disclosure practices than smaller firms.

This result supports Stakeholder Theory, which contends that big businesses are subject to more scrutiny over their environmental duties from investors and other stakeholders, is supported by this outcome. Consequently, transparent CED can boost stakeholder confidence, boost a firm's brand, and improve financial performance. In addition, according to Signaling Theory, a firm's commitment to sustainability is positively indicated by its carbon disclosure. The advantages of carbon disclosure can be more successfully converted into better financial results since larger companies typically have the organizational and financial capacity to carry out and publicize environmental efforts. This finding is consistent with those Bedi & Singh (2024) and Abdi et al. (2022), who found that the association between environmental disclosure and corporate performance is strengthened by firm size.

#### **The Moderating Role of Firm Size on the Relationship between ESG and Market Valuation**

Firm Size does not moderate the relationship between ESG and market valuation, as indicated by a probability value of 0.6874 ( $> 0.05$ ) for the interaction term between ESG and Firm Size. Therefore, H9 is rejected. This research reveals that the influence of ESG on Tobin's Q does not vary according to firm size among energy sector enterprises in five ASEAN countries during the 2022–2024 period.

This result indicates investors are more concerned with the caliber, reliability, and economic significance of ESG policies than with the size of the company that reports them. Although larger firms generally possess more resources to implement sustainability initiatives and receive greater public attention, these advantages do not necessarily lead to stronger market appreciation of ESG information. Consistent with Signaling Theory, ESG disclosure is a sign of a company's dedication to sustainability, and size does not automatically increase the signal's informational value. This finding is supported by

Puspita & Budiasih (2024) and Sevnia & Mulyani (2023) who discovered that firm scale did not increase the association between sustainability disclosure and firm value. Consequently, the impact of ESG on market valuation is not influenced by firm size.

### **The Moderating Role of Firm Size on the Relationship between ESG and Financial Performance**

Firm Size strongly moderates the association between ESG and financial performance, as demonstrated by a probability value of 0.0201 ( $< 5\%$ ) with a negative interaction coefficient of -0.138610. H10 is therefore approved. The negative coefficient suggests that company size weakens the positive impact of ESG on ROA. In other words, the larger the company, the weaker the contribution of ESG practices to improving Return on Assets.

This finding indicates that large firms do not necessarily obtain greater financial benefits from ESG implementation. Although larger companies generally possess more resources to undertake sustainability initiatives, they also face higher implementation costs, greater operational complexity, and stronger stakeholder pressures. As a result, the economic benefits generated by ESG activities may not be fully translated into higher profitability. According to Stakeholder Theory, big businesses have to take into account the interests of a wider variety of stakeholders, which makes ESG implementation more difficult and resource intensive. This finding is consistent with Abdi et al. (2022) who discovered that because sustainable measures are more expensive and difficult to implement in larger firms, size can impair the association between ESG and financial performance.

### **The Moderating Role of Firm Size on the Relationship between Sales Growth and Market Valuation**

Firm Size does not moderate the relationship between Sales Growth and market valuation, as indicated by a probability value of 0.3446 ( $> 0.05$ ) for the interaction term between Sales Growth and Firm Size. Therefore, H11 is rejected. This finding suggests that the positive effect of sales growth on Tobin's Q is not significantly influenced by firm size among energy sector companies in five ASEAN countries during the 2022–2024 period.

This result indicates that investors do not necessarily value sales growth differently based on the size of the firm. While larger companies may possess greater assets and resources, these advantages do not automatically enhance the market's response to sales growth. Investors are more likely to focus on the quality and sustainability of growth rather than the scale of the company itself. Sales growth is a sign of future business opportunities, according to Signaling Theory. However, the firm's capacity to translate growth into long-term value creation determines how successful this signal is. This result is in accordance with the findings of Budiharjo et al. (2023) who discovered that the relationship between company value and sales growth is not exacerbated by firm size. Consequently, the impact of sales growth on market valuation is not significantly influenced by the size of the firm.

### **The Moderating Role of Firm Size on the Relationship between Sales Growth and Financial Performance**

A probability value of 0.3509 for the interaction term between Sales Growth and Firm Size indicates that Size does not modify the association between Sales Growth and financial performance. Therefore, H12 is rejected. This finding suggests that the effect of sales growth on financial performance, as measured by Return on Assets, does not significantly differ between large and small energy sector firms in five ASEAN countries during the 2022–2024 period.

This result indicates that higher sales growth does not necessarily lead to greater profitability simply because a company possesses larger assets. In the energy sector, the ability to convert sales growth into

profit is more dependent on operational efficiency, cost management, and effective utilization of resources. Moreover, substantial capital requirements, high operating costs, and commodity price volatility may reduce the financial benefits generated by increasing sales. Consequently, the relationship between sales growth and financial performance is not substantially strengthened nor weakened by business size. This result is in agreement with the findings of Apriiliansyah & Naibaho (2022) and Maulana et al. (2025) who discovered that the impact of sales growth on corporate performance is not moderated by firm size.

## **CONCLUSION**

This research investigates the influence of Carbon Emission Disclosure (CED), Environmental, Social, and Governance (ESG), and Sales Growth on market valuation and financial performance, as well as the moderating role of Firm Size, among energy sector companies in five ASEAN countries over the 2022–2024 period.

The results show that while CED has a positive impact on market valuation but does not significantly influence financial performance. ESG does not affect market valuation but positively affects financial performance. Sales Growth positively influences both market valuation and ROA. The association between CED and financial performance is strengthened by firm size, whereas the relationship between ESG and financial performance is weakened, according to the moderating effects. However, Firm Size does not moderate the relationships between CED and market valuation, ESG and market valuation, Sales Growth and market valuation, or Sales Growth and financial performance.

These results imply that when evaluating companies in the ASEAN energy sector, investors still favor financial metrics and growth prospects above disclosures pertaining to sustainability. Nevertheless, ESG practices and carbon disclosure may contribute to better financial outcomes, particularly for firms with greater organizational resources. In order to provide a more thorough explanation of the relationship between corporate performance and sustainability practices, further research is advised to extend the time horizon, incorporate other industries and nations, and take into account additional moderating factors.

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