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Quality of financial disclosures related to environmental, social, and governance matters, and firm characteristics and firm value: A comparative study across four ASEAN countries

Nadya Aprilia Putri[1]
Arie Pratama[2+]

[1,2]*Department of Accounting, Faculty of Economics and Business, Universitas Padjadjaran, Indonesia.*
[1]*Email: nadya19004@mail.unpad.ac.id*
[2]*Email: arie.pratama@unpad.ac.id*

(+ Corresponding author)

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ABSTRACT

This research aims to understand how a company's characteristics influence its disclosure of sustainability-related financial information and how such disclosure affects the company's value. The study uses three company characteristics as variables: size, profitability, and leverage. The two dependent variables are the quality of sustainability reporting and company value. The research uses a quantitative explanatory method. The study uses sustainability disclosure data, based on the IFRS S1 framework, from 162 companies listed on the sustainability-based stock indexes in Indonesia, Malaysia, Singapore, and Thailand in 2021. The data obtained were analyzed using descriptive statistical analysis and path analysis. The study results show that only company size influences the quality of sustainability item disclosure, while profitability and leverage have no effect. The quality of sustainability item disclosure has a positive effect on company value. This study shows that sustainability disclosure in financial reports can increase a company's value in the eyes of investors, but significant efforts are still needed to improve the quality of such disclosure. The findings indicate that the size of a firm has a significant impact on the expenses associated with publishing sustainability information. However, the company's performance does not have a similar relationship.

Contribution/Originality: This study contributes to the existing literature by analyzing whether company characteristics influence the quality of sustainability reporting and company value. This study is one of the few studies investigating the early adoption of International Financial Reporting Standards (IFRS) and Sustainability Standards.

1. INTRODUCTION

The topic of 'sustainability' has developed in various areas, including business. The phrase Environmental, Social, and Governance (abbreviated as ESG) was first introduced in 2006 in the United Nations Principles for Responsible Investment Report in an effort to implement sustainable practices in business by considering three aspects, environmental, social, and governance aspects, in addition to financial perspectives, in assessing a company's value, performance, and risk profile. The original motivation for ESG-based investment practices is moral or ethical and is based on third-party effects rather than investment returns (Schanzenbach & Sitkoff, 2021). ESG practice is a mandatory form of corporate responsibility for enhancing the social welfare and wealth of stakeholders in the long run, fairly and sustainably (Jamali, Karam, Yin, & Soundararajan, 2017; Mohammad & Wasiuzzaman, 2021; Turban & Greening, 1997). ESG reporting has become a growing trend. Investment based on ESG factors has become a new consideration for investors when making investment decisions. ESG performance is considered a critical factor in identifying the opportunities and risks of a company. ESG practices have also been found to influence a company's performance. There has been a significant increase in the firm value and market performance of companies listed on Bursa Malaysia (Wong, Batten, Mohamed-Arshad, Nordin, & Adzis, 2021) that have implemented ESG practices in their businesses. Similar results were also found in studies conducted in India (Chelawat & Trivedi, 2016) and in Europe's banking sector (Buallay, 2019).

This phenomenon indicates a significant need for comprehensive information regarding ESG (Environmental, Social, and Governance) performance. Such information is crucial for investors to make informed decisions. There has been a shift in perspective, recognizing that financial information alone no longer satisfies investors' requirements. Non-financial information, including ESG factors, has become essential in influencing investors' decisions. In response to this demand, companies have begun providing reports that encompass their environmental, social, and governance performance in addition to traditional financial reports. These reports are commonly known as Sustainability Reports or Sustainable Reports. Despite an increase in the number of companies issuing such reports, sustainability reporting is still considered to lack the necessary momentum to be truly meaningful for investors.

To address this issue, various standards have been established and continuously updated to ensure high-quality and valuable Sustainability Reports that aid stakeholders in decision-making. At the United Nations Climate Change Conference (COP26) in 2021, the International Financial Reporting Standards (IFRS) Foundation announced the formation of the International Sustainability Standards Board (ISSB). This board is responsible for developing standards related to corporate obligations to disclose ESG performance. Given that IFRS is a globally accepted accounting standard adopted by over 140 countries, the standards issued by the ISSB carry significant influence on corporate reporting of ESG practices.

Past research has explored the factors that drive companies to publish Sustainability Reports. Adam (2002) suggests that these factors include company characteristics such as size as well as broader influences like economic, political, and social contexts. When it comes to sustainability reporting, Adams and Whelan (2009) highlight factors such as maximizing shareholder wealth, maintaining organizational legitimacy, and managing reputational risks as fundamental drivers of disclosure in Sustainability Reports.

The characteristics of a company arise from the variation in companies' activities (Pratama, Yadiati, Tanzil, & Suprijadi, 2021). Different studies include different attributes that are considered company characteristics. Many studies use company size as an attribute when examining the influence of company characteristics on the issuance of a Sustainability Report, considering company size as a generalisation of company legitimacy, which is a fundamental factor driving the issuing of Sustainability Reports (Schreck & Raithel, 2018). Company size has been widely recognised in previous research as a factor that positively influences the adoption of sustainability reporting practices (Dissanayake, Tilt, & Qian, 2019), as the more significant the company, the more visible it is in the public eye, making it subject to greater expectations of accountability. Studies conducted in emerging market countries such as Sri Lanka (Dissanayake et al., 2019), India (Bhatia & Tuli, 2017), and Turkey (Özcan, 2020) show that company size has a positive effect on sustainability reporting practices in companies. A systematic literature review conducted by Dienes, Sassen, and Fischer (2016) on 316 studies regarding the drivers of sustainability reporting showed similar results regarding the influence of company size on the disclosure by companies of sustainability information in Sustainability Reports.

One of the characteristic corporate attributes widely used in research on factors influencing sustainability reporting is profitability. Profitability was found to be a significantly positive factor in sustainability reporting in Turkey (Özcan, 2020). Companies aim to spread information about their profits to the public to increase their stock price (Oliveira, Lima Rodrigues, & Craig, 2006; Özcan, 2020). Companies with good profit performance can also bear the necessary disclosure costs of a Sustainability Report.

A further exploration of research related to factors influencing the issuance of Sustainability Reports shows that leverage is used as a characteristic attribute of the tested companies. Leverage describes the company's debt composition compared to its equity. Various empirical results have been found regarding the impact of leverage on sustainability reporting. Bhatia and Tuli (2017) found that leverage has a significantly negative impact on the quality of the disclosure in Sustainability Reports, explaining that companies with a large debt composition in their capital structure do not behave in the optimal way regarding disclosing information and only disclose the required information. However, Ariyani and Hartomo (2018) obtained different results, finding that leverage has a significantly positive impact on disclosure in Sustainability Reports and explaining that companies with a higher debt composition are considered riskier for raising funds unless they provide comprehensive information.

This study aims to find empirical evidence about how company size, profitability, and leverage affect the quality of Sustainability Report disclosures by companies in four Association of Southeast Nations (ASEAN) countries and the impact of the quality of the reporting on company value. This study differs from previous research because the basis for disclosures on Sustainability Report items is the sustainability disclosure standard published by the ISSB, namely the IFRS S1 standard. Previous research used the Global Reporting Initiative's (GRI) sustainability disclosure standard. The GRI standard is considered less comprehensive because it focuses on social and environmental aspects and ignores aspects of company risk management. This study uses several companies in ASEAN countries as subjects because research with subjects in developing market countries, especially research with multiple country subjects, is still minimal (Ariyani & Hartomo, 2018; Bhatia & Tuli, 2017; Dissanayake et al., 2019; Masum, Hasan, Miraz, Tuhin, & Chowdhury, 2020; Özcan, 2020). Although the standard of sustainability disclosure by companies in ASEAN countries in their Sustainability Reports is still low, ASEAN countries have initiated significant progress in improving this performance. Previous research shows that countries in the Asia Pacific region, including ASEAN countries, have more dedication to new units specialising in sustainability reporting and sustainability disclosure in Sustainability Reports than other regions. This research investigates the drivers of sustainability reporting and its influence on the value of companies. Previous studies have examined these aspects separately, analysing the factors behind sustainability reporting and the effects of such reporting on company value. The remainder of this paper is organized as follows: Section 2 presents a concise review of the relevant literature and outlines the research hypotheses. Section 3 describes the research methodology employed. Section 4 presents the research findings, discusses their implications, and provides a comprehensive analysis. Finally, Section 5 concludes the article.

2. LITERATURE REVIEW

2.1. Review of Sustainability-related Theories: Legitimacy Theory, Stakeholder Theory, and Signalling Theory

Legitimacy theory explains the interaction between companies and the social environment in which they operate. Mahmud (2019) found that the term legitimacy is understood differently by different researchers, with the understandings ranging from legitimacy as a social value affecting how the company attracts resources to legitimacy as compliance with legislation, morality, the social value system, and cultural norms. The legitimacy theory views companies as part of the social community in which they operate. As a result of the social contract between companies and the social community, whether explicit or implicit, companies must operate in accordance with the expectations of the social community in which they exist. The company's survival is threatened when the social community feels the company has violated the social contract. Companies have two main ways to maintain their business legitimacy in the social community (Mahmud, 2019), namely substantive management and symbolic management. Substantive management means that the company manages its capacity in accordance with stakeholders' expectations. Symbolic management is the method chosen by the management to align the company's conformity with existing social values. Companies may be considered to have lost their legitimacy for several reasons, such as changes in the social community's expectations over time or an event that damages the company's image. When a company's operations are deemed to be inconsistent with the social contract with the social community, the company may take remedial steps and accompany these with information disclosure, given that legitimacy theory is based on perceptions (Deegan, 2002). Companies that perform poorly in one ESG indicator tend to choose and disclose shallow, incomplete, and ambiguous information, or, in other words, low-quality information (Hummel & Schlick, 2016). According to Mousa and Hassan (2015), there are other reasons why companies may issue Sustainability Reports: to maintain the company's reputation, to demonstrate regulatory compliance, to obtain marketing benefits to sustain their reputation, and to differentiate the company from its competitors.

A stakeholder is a group or individual who can influence or be influenced by the achievement of an organisation's goals (Freeman, 1984). In huge organisations, stakeholders can include individuals and groups such as consumers, suppliers, company owners, employees, competitors, activists, financial communities, advocacy groups, trade associations, the government, and political groups. From various works on stakeholders by Freeman, stakeholder theory can be defined as the theory behind the redistribution of benefits and essential decision-making among stakeholders (Stieb, 2009). Companies benefit from the presence of stakeholders for their business operations and must provide commensurate benefits for what is received from the stakeholders. Each stakeholder is also considered a legally recognised party who can vote on significant decisions, not just a tool for achieving company goals. Stakeholder theory can be viewed from a moral and strategic perspective (Freeman, 1994). From a moral standpoint, companies must manage their relationships with stakeholders because they have a fiduciary obligation to them. From a strategic perspective, managing relationships with stakeholders is one way to achieve managerial and shareholder goals related to the economic motivation to maximise profits. A Sustainability Report results from a company's relationship with stakeholders (Ching & Gerab, 2017). The sustainability reporting domain is the accounting research area most impacted by stakeholder theory (Gray, Kouhy, & Lavers, 1995). Regarding accounting and reporting, stakeholder theory is a way to select essential disclosure items, answer why those items are important, and speculate on factors that influence the disclosure of those items.

Signalling theory explains the issues with asymmetric information between two parties. This theory is part of pragmatic accounting theory, which focuses on the reaction of users of financial information to changes in behaviour (Purba & Nurlinda, 2018). Signalling theory is based on three main components: the sender, the receiver, and the signal itself. A signal is information, positive or negative, that the sender decides to communicate, or not to communicate, to external parties. The signal sender here is the company's internal management, which has access to internal information that is not known to external parties. The signal sender's reputation is the signal's main focus because the strength and ability to manipulate the signal depend on the reputation and credibility of the signal sender (Kovács & Sharkey, 2014; Yasar, Martin, & Kiessling, 2020). To communicate the company's image, intentions, behaviour, and performance, the company often sends signals that try to reduce the asymmetry of information between itself and its stakeholders. Signalling theory explains that the Sustainability Report, which reveals transparency, stability, and attention to social and environmental issues, is used by companies to inform stakeholders about the long-term sustainable management of the company (Bae, Masud, & Kim, 2018; Hassan, Elamer, Fletcher, & Sobhan, 2020; López-Santamaría, Amaya, Hinestroza, & Cuero, 2021). In the Sustainability Report, companies want to convey a positive signal to their stakeholders, and in the end, they hope for a positive response from shareholders in the form of an upward trend in their stock price.

2.2. Sustainability-Related Financial Disclosure

Although there is an increasing trend towards more sustainable reporting practices, companies have no commonly used format to report on sustainability (Amidjaya & Widagdo, 2020). Currently, sustainability reporting lacks consistency and transparency. There are over 600 regulations and ESG reporting standards worldwide, many of which have different definitions of sustainability (Ernst & Young, 2021). Among these various standards and regulations, there are five central reporting bodies (the Group of Five) in the realm of sustainability reporting: the Carbon Disclosure Project (CDP), the Climate Disclosure Standards Board (CDSB), the Global Reporting Initiative (GRI), the International Integrated Reporting Council (IIRC), and the Sustainability Accounting Standards Board (SASB), which are various organizations involved in sustainability reporting. However, there is a need to consolidate the different formats of Sustainability Reports into a standardized report that covers all aspects of a company's reported performance. This movement towards harmonizing financial reporting standards on sustainability is gaining momentum worldwide. The establishment of the International Sustainability Standards Board (ISSB) by the International Financial Reporting Standards (IFRS) Foundation, which was introduced at the Conference of the Parties (COP) 26 in November 2021, is a significant development in this area.

In March 2022, the ISSB released two exposure drafts: IFRS S1 and IFRS S2. IFRS S1 provides general requirements for disclosing financial information related to sustainability, offering guidance on how entities should report financial information concerning sustainability risks and opportunities. It also suggests that entities should provide a comprehensive set of financial disclosures related to sustainability to the market. On the other hand, IFRS S2 focuses on climate-related disclosures that enable investors to assess the value of a company. It establishes rules for the material disclosure of significant sustainability-related risks and opportunities, aligning with the general guidelines in IFRS S1 for reporting on climate change issues.

According to the standards set by the ISSB for preparing Sustainability Reports, entities must disclose material information concerning various sustainability-related aspects. This includes the entity's management of sustainability-related risks and opportunities, its strategy for addressing them, decisions that may impact future financial flows, the entity's position, performance, reputation, and the creation of knowledge-based assets. The Sustainability Report should include specific disclosures related to governance, strategy, risk management, and metrics and targets used to assess and monitor the entity's performance in relation to sustainability-related risks and opportunities over time.

2.3. Development of Hypotheses

2.3.1. The Influence of Company Size on Sustainability-Related Financial Disclosure

Company size provides an overview of the capacity of a business, whether it is large or small. Because company size is a comprehensive variable that can be used as a proxy for various company attributes such as competitive advantage, information production costs, and political costs, it stands out in many economic studies (Dissanayake et al., 2019; Shalit & Sankar, 1977). Generally, larger companies disclose more information than smaller ones. Large companies have higher agency costs, so they need to disclose more information to reduce these costs. Large companies also have a significant impact on the social community, thus receiving more significant pressure to be accountable for their business activities in the environment of the surrounding community. Therefore, large companies may be specifically driven to respond to social and environmental issues and make disclosures to show that their actions are consistent with existing social norms. This study uses total assets as a proxy for company size. Total assets describe all of the company's resources that it can use to achieve its goals (Pratama et al., 2021). In both developed countries (Baalouch, Ayadi, & Hussainey, 2019; Giannarakis, 2014; Schreck & Raithel, 2018; Zamil, Ramakrishnan, Jamal, Hatif, & Khatib, 2023) and developing countries (Aggarwal & Singh, 2019; Amidjaya & Widagdo, 2020; Bhatia & Tuli, 2017; Dissanayake et al., 2019; Ismail, Abdul Rahman, & Hezabr, 2018; Kuzey & Uyar, 2017; Orazalin & Mahmood, 2020; Özcan, 2020; Sumarta, Rahardjo, Satriya, Supriyono, & Amidjaya, 2021) company size has been found to significantly influence Sustainability Report disclosure, so the following hypothesis can be formulated:

H_1: Company size positively affects the quality of sustainability-related financial disclosure.

2.3.2. The Influence of Profitability on Sustainability-Related Financial Disclosure

Profitability is a measure of a company's efficiency in generating returns from the investments it makes in its operations. Sustainability disclosure reflects the managers' skills in dealing with a dynamic environment and their ability to connect social pressures with the desires of society. Theoretically, organisational management that is successful in generating profits tends to publish more information to indicate its success in the market (Dienes et al., 2016). In addition, profitable companies are considered to have the financial resources to fund sustainability reporting.

This study uses the Return on Assets (ROA) profitability ratio, which looks at how profitable a company is compared to its total assets, as in the studies of Marquis and Qian (2014) and Özcan (2020). ROA is used because this ratio gives a comprehensive measurement from the perspectives of both shareholders and creditors, who have claims on the company's total assets. The studies by Marquis and Qian (2014), Özcan (2020), Purbawangsa, Solimun, Fernandes, and Mangesti Rahayu (2020), and Giannarakis (2014) uniformly show a positive influence of profitability on the quality of Sustainability Reports, so the following hypothesis can be formulated:

H_2: Profitability positively affects the quality of sustainability-related financial disclosure.

2.3.3. The Influence of Leverage on Sustainability-related Financial Disclosure

Leverage indicates the percentage of funds sourced from creditors to finance the company's assets. Businesses with high leverage will be more cautious when making spending decisions. With limited funds, they must decide on the allocation of funds between paying off debt and making sustainability disclosures (Antara, Putri, Ratnadi, & Wirawati, 2020). Bhatia and Tuli (2017) found that companies with high leverage make sustainability disclosures solely for the benefit of bondholders and lenders and do not disclose material information. Companies are seen to disclose more information when they have more equity capital (Bhatia & Tuli, 2017; Bhayani, 2012). With results similar to those of Bhatia and Tuli (2017) and Giannarakis (2014), it was found that leverage negatively affects sustainability disclosures, with high-leverage companies appearing reluctant to provide complete information because of the cost of the reporting process. Kuzey and Uyar (2017) found a negative association between leverage and sustainability reporting. Instead of viewing sustainability reporting as a process for generating long-term value, companies see it as a luxury item that will be chosen after achieving short-term goals. Based on this description, the following hypothesis can be formulated:

H_3: Leverage has a negative effect on the quality of sustainability-related financial disclosure.

2.3.4. The Influence of Sustainability-Related Financial Disclosure on Company Value

A Sustainability Report is a way for companies to legitimise their existence in society and is a form of proof to stakeholders that the business is being run sustainably. Company management should pay attention to factors that affect the company's value, including the issuing of a Sustainability Report, to increase and maintain the company's value (Purbawangsa et al., 2020). A Sustainability Report is seen as a signal that informs stakeholders, particularly investors, about the company's performance in terms of sustainability, and the company hopes that stakeholders accept this signal to improve their perception of the company. The better the quality of the disclosure items in the Sustainability Report, the more stakeholders will see it as an effort made by the company to maintain and be responsible for the social environment. Qureshi, Kirkerud, Theresa, and Ahsan (2020) found that environmental and social disclosure have a significantly positive effect on company value, a result that is similar to that in Gerged, Beddewela, and Cowton's (2021) research. Environmental and social disclosure enhances the reputation and popularity of the company and opens the way for company growth. Swarnapali (2020) also found that a Sustainability Report positively affects company value and that investors are willing to pay a premium on the stock market for companies that conduct their business in a sustainable way. Based on this description, the following hypothesis can be formulated:

H_4: Sustainability-related financial disclosure positively affects company value.

3. METHODS

According to Sekaran and Bougie's (2016) definition, this research is an exploratory study. Such research is conducted when little is known about the existing research topic or there is no accessible information about how similar problems have been solved in the past. The ISSB, a new body under the auspices of the IFRS Foundation, was established to create global standards to streamline the corporate sustainability reporting ecosystem. Because of the urgency of preparing global corporate reporting practices, there is still little research on Sustainability Reports using the ISSB disclosure standards, especially within the ASEAN countries.

This study focuses on a population of companies that meet specific criteria. The population includes all companies listed on the stock exchanges of Indonesia, Singapore, Malaysia, and Thailand, which issued a Sustainability Report in 2021. Furthermore, these companies are categorized as having high sustainability performance based on the ESG Stock Index's list of companies as of April 2022. Table 1 provides details on the population size, which consists of a total of 250 companies.

Table 1. Research population.

No.	Country	Sustainability-related index	Number of companies
1	Indonesia	ESG quality index 45 Kehati	45
2	Singapore	Edge environment, social, and governance (ESG) leader index	79
3	Malaysia	Financial Times Stock Exchange (FTSE) 4 good bursa Malaysia	80
4	Thailand	Stock exchange of Thailand (SET) (Thailand Sustainability Investment) THSI	46
Total			250

The sample used in this research was obtained using a purposive sampling technique. Below are some of the criteria used to select the research sample:

1. Company is not included in the group of companies in the banking and financial services industry.
2. Company's annual report for 2021 can be accessed online from its website.
3. Company's annual report for 2021 is presented in either Indonesian or English.
4. Public company whose annual report for 2021 is presented for the period ending on December 31st.

Eighty-eight companies did not meet the criteria, so only 162 companies were processed in this study. The operationalisation of the variables is displayed in Table 2 as follows:

Table 2. Operationalisation of variables.

Variable	Indicator	Formula
Company size (X_1)	Company's total assets	Natural logarithm (Ln) of total assets
Profitability (X_2)	Return on assets (ROA)	Net income / Total assets
Leverage (X_3)	Debt to equity ratio (D/E)	Total debt / Total equity
Sustainability-related financial disclosure (Y)	Divide the annual report's sustainability report disclosure component quality score by the maximum sustainability report disclosure component score, which is 129.	Using the quality score matrix developed by Pratama, Jaenudin, and Anas (2022)[1]
Company value (Z)[2]	Price to book value (P/B ratio)	Price per share / Book value per share

The data are analysed using descriptive statistics overall and for each subject country of the study. Hypothesis testing is performed using path analysis. Figure 1 shows the structural equations used in this research.

[1] Pratama et al. (2022) measured the quality of the disclosure based on IFRS S1. There were 38 disclosure items to be assessed. The disclosure quality of the item was measured using three categories, namely poor (score 1), sufficient (score 2) and good (score 3).

[2] The Company value (Z) variable is obtained using the price to book value proxy, which uses stock prices on the exchange. The stock price used is the company's average stock price closing value on the exchange for the 1 to 3 days after the annual report was issued.

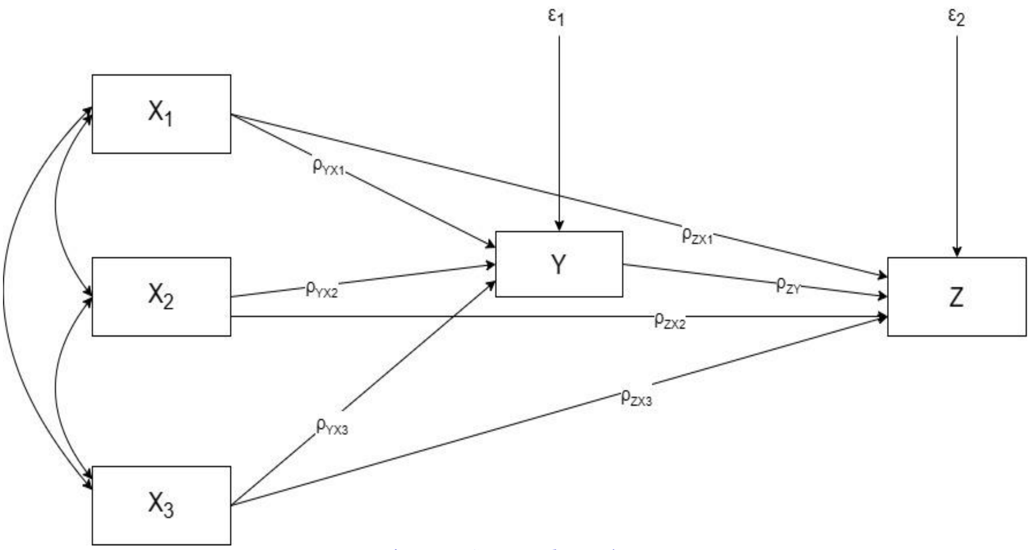

Figure 1. Structural equations.

$$Z = \rho ZX_1X_1 + \rho ZX_2X_2 + \rho ZX_3X_3 + \rho YX_1X_1 + \rho YX_2X_2 + \rho YX_3X_3 + \rho ZYY + \varepsilon \quad (1)$$

Notes:

ρ_{ZY} = Path coefficient from Z to Y

ρ_{ZX1} = Path coefficient from Z to X_1

ρ_{ZX2} = Path coefficient from Z to X_2

ρ_{ZX3} = Path coefficient from Z to X_3

ρ_{YX1} = Path coefficient from Y to X_1

ρ_{YX2} = Path coefficient from Y to X_2

ρ_{YX3} = Path coefficient from Y to X_3

ε = Disturbance error.

4. RESULTS AND DISCUSSION

4.1. Results

4.1.1. Descriptive Statistics

The descriptive statistical results from this research are presented in an all-country and per-country manner. Table 3 sets out the descriptive statistical results.

Total assets are used to measure the size of the company; the value is converted into US dollars, and the natural logarithm (Ln) is used to ensure uniformity. The data distribution shows a minimum value of 17.57 and a maximum value of 25.25. The average value of the company size for the four countries is above 20, with little difference between the four countries. With this average value, the size of the companies studied is relatively small, with the majority being close to the minimum value.

Profitability is measured as the ratio of profit to total assets, or the return on assets (ROA). The data distribution shows a minimum value of -0.17 and a maximum value of 0.34. The average value of profitability is below 0.1, or 10%, indicating that the companies in the four countries in 2021 had less than 10% return on assets. The profitability of the companies in the four countries is relatively low, with the average value being close to the minimum value. The low profitability in these four countries is because the year of observation was during the COVID-19 pandemic. The pandemic placed companies in a difficult position, and they faced challenges they had never encountered before. There was a significant cost increase, while customers' demand for goods and services decreased drastically.

Table 3. Descriptive statistics.

Variable	Description	Country				All countries
		Indonesia	Malaysia	Thailand	Singapore	
X_1 Company size	Minimum	19.47	18.39	20.17	17.57	20.17
	Maximum	23.69	24.50	25.25	24.80	23.69
	Average	21.41	20.9	22.42	21.36	21.52
	St. deviation	1.06	1.53	1.17	1.79	1.39
X_2 Profitability	Minimum	0.00	-0.17	-0.04	-0.13	0.00
	Maximum	0.31	0.33	0.20	0.34	0.20
	Average	0.07	0.05	0.05	0.06	0.06
	St. deviation	0.07	0.08	0.04	0.07	0.07
X_3 Leverage	Minimum	0.13	0.09	0.16	0.11	0.16
	Maximum	6.05	11.39	7.15	3.66	3.66
	Average	1.32	1.45	1.90	0.97	1.41
	St. deviation	1.38	1.80	1.56	0.74	1.37
Y Sustainability-related financial disclosure	Minimum	0.38	0.55	0.64	0.62	0.64
	Maximum	0.81	0.97	1.00	0.91	0.81
	Average	0.60	0.76	0.89	0.78	0.76
	St. deviation	0.14	0.11	0.11	0.10	0.12
Z Company value	Minimum	0.57	0.5	0.78	0.49	0.78
	Maximum	2.87	6.87	3.21	3.65	2.87
	Average	1.30	1.48	1.72	1.13	1.41
	St. deviation	0.63	1.18	0.69	0.54	0.76

Leverage is measured as the ratio of total debt to the company's total equity. The data distribution shows a minimum value of 0.09 and a maximum value of 11.39. The average leverage of the companies in the four countries is around 1, indicating that the companies generally finance their assets with debt and equity in equal portions.

The assessment of the disclosure quality in the Sustainability Reports is conducted using a quality matrix aligned with the ISSB's IFRS S1 standard. The distribution of data ranges from a minimum value of 0.38 (equivalent to 38%) to a maximum value of 1 (equivalent to 100%). On average, disclosure quality scores exceed 0.5. Notably, Thailand demonstrates the highest average score of 0.89, while the remaining three countries exhibit an average score below 0.8. These findings suggest that Thai companies produce Sustainability Reports of the highest quality, whereas the reports from the other three countries, particularly Indonesia, exhibit relatively lower levels of quality.

The PBV ratio, which compares the market stock price of the company to its book value per share, serves as a measure of the company's value. The stock price is the average over the 1-3 days after the company's Sustainability Report was published. The data distribution shows a minimum value of 0.49 and a maximum value of 3.65 for Hong Leong Asia Ltd. and IFast Corp. Ltd., both from Singapore. The larger the PBV, the more highly the company is valued in the market. The average value of all the companies in the four countries is above 1, indicating that the company's stock is valued more highly than its book value.

4.2. Path Analysis

Before conducting path analysis, data normality tests were performed. The results for structural equations showed that the significance value of the Kolmogorov–Smirnov normality test was 0.051. As the significance values are higher than α, the residual data are normally distributed, and data processing can proceed.

Figure 2 shows the path figure that was formed, and Table 4 sets out the interpretation of the results and whether or not the hypotheses can be accepted.

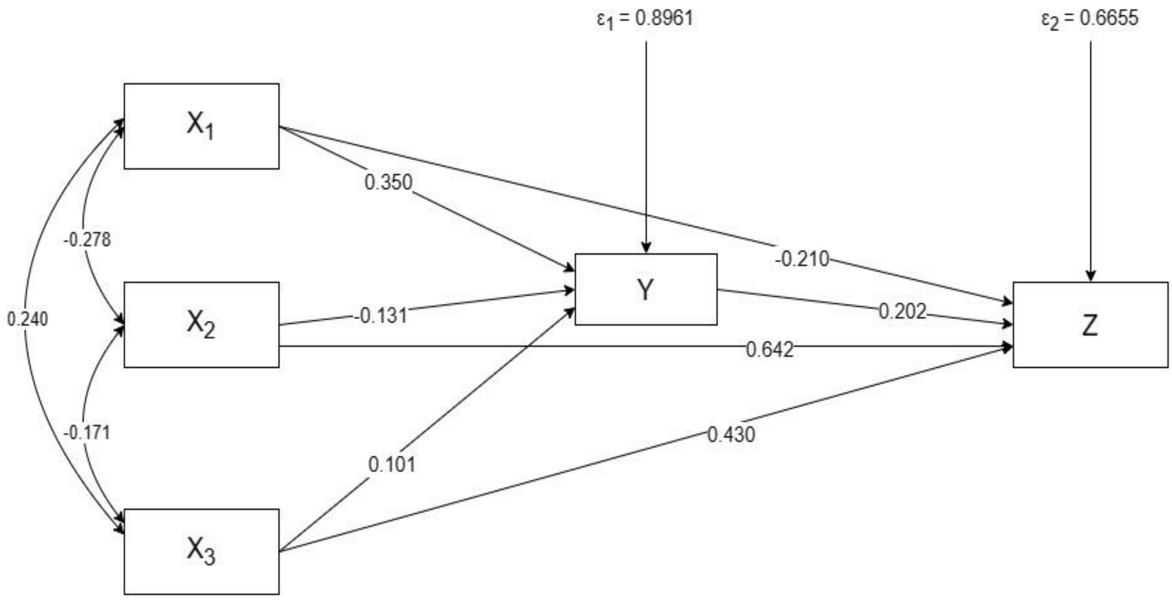

Figure 2. Path figure.

Table 4. Path figure interpretation and hypothesis testing.

Path	Coefficient	score	t_{table}	Sig.	Hypothesis test
ρ_{YX1}	0.350	4.614	±1.975	0.000*	H_1 = Accepted
ρ_{YX2}	-0.131	-1.756		0.081	H_2 = Rejected
ρ_{YX3}	0.101	1.372		0.172	H_3 = Rejected
ρ_{ZY}	0.202	3.405		0.001*	H_4 = Accepted
ρ_{ZX1}	-0.210	-3.486		0.001*	
ρ_{ZX2}	0.642	11.436		0.000*	
ρ_{ZX3}	0.430	7.772		0.000*	
R^2 = 0.557					
$\varepsilon_2 = \sqrt{(1\text{-}0.557)} = 0.666$					

Note: * Significant at α = 5%.

5. DISCUSSION

The test results show that a company's size positively influences its sustainability-related financial disclosure. This result indicates that the larger the company, the better the quality of its Sustainability Report. Dissanayake et al. (2019); Bhatia and Tuli (2017); Özcan (2020); Dienes et al. (2016); Orazalin and Mahmood (2020); and Giannarakis (2014) share the same perspective that this positive relationship arises because, as a company's size increases, it receives more attention from the public. This attention comes from the company's activities, which have a greater impact and affect more stakeholders. High-quality sustainability reporting is necessary to legitimise public trust in the company, giving the public the perception that the company is within the recognised values and norms. Additionally, larger companies have adequate resources to produce high-quality Sustainability Reports. Bhatia and Tuli (2017) and Özcan (2020) state that larger companies have adequate resources to implement a sustainability reporting framework, resulting in reports with broader disclosure. Using the concept of economies of scale, larger companies have the advantage of being able to issue Sustainability Reports at a lower cost than smaller companies that have limited financial and human resources (Dienes et al., 2016; Kuzey & Uyar, 2017; Schreck & Raithel, 2018).

Based on the test results, we find that profitability does not affect the quality of sustainability-related financial disclosure. This result contradicts what was found by Özcan (2020) in Turkey, Orazalin and Mahmood (2020) in Kazakhstan, and Purbawangsa et al. (2020) in Indonesia, China, and India. These three studies used observation years before 2020, when there was no COVID-19 pandemic. The present study used the observation year 2021, the year that companies began to be aware of the Sustainability Report standards issued by the ISSB, namely IFRS S1. The world was also in the middle of the COVID-19 pandemic, which posed challenges to businesses' survival. Ardiyono (2022) explained that, despite the improvement in ASEAN companies' revenue in late 2020, in 2021, due to government restrictions and the increasing number of COVID-19 cases arising from the Delta and Omicron variants, company revenue decreased drastically. The reduction was around 40% but varied depending on the country and industry sector. The three studies that stated that profitability positively affects the Sustainability Report (Orazalin & Mahmood, 2020; Özcan, 2020; Purbawangsa et al., 2020) argued that companies that generate profits can cover the cost of disclosure. The pandemic was a new challenge that had never happened before for companies. Ardiyono (2022) noted that the impact of the pandemic on ASEAN countries included a significant decline in revenue, an increase in production costs, and a reduction in the number of employees. As it was a new challenge, companies focused more on improving their profitability and maintaining business sustainability amid macroeconomic uncertainty.

From the test results, it can be seen that leverage does not affect the quality of sustainability-related financial disclosure. In studies looking at the connection between leverage and the Sustainability Report, Kuzey and Uyar (2017) in Turkey and Nazari, Herremans, and Warsame (2015) in Canada discovered results that are comparable to this one. Although creditors form a strong group that can determine a company's decisions, it seems that they are insufficiently influential to push for the disclosure of a Sustainability Report by the company. Creditors seem to be unconcerned with a company's sustainability performance (Kuzey & Uyar, 2017; Liu & Anbumozhi, 2009). Companies with high leverage have limited financial resources, which makes them prioritise their immediate obligations. Kuzey and Uyar (2017) further state that companies with high leverage levels view a Sustainability Report as a luxury rather than a strategy to generate long-term value.

Based on the test results, it can be said that sustainability-related financial disclosure has a positive effect on a company's value. A company will be valued more highly when it publishes a Sustainability Report with high-quality content. This result confirms the research of Swarnapali (2020); Qureshi et al. (2020); Gerged et al. (2021); and Wong et al. (2021). The Sustainability Report is an effective signal for an increase in a company's value. Investors tend to appreciate businesses that are engaged in sustainable activities by giving them higher ratings in the capital market and paying them higher premiums than they pay companies that neglect these issues (Swarnapali, 2020). Documentation about a company's involvement in sustainability issues reduces information asymmetry, thus increasing trust and reputation. The Sustainability Report describes being able to increase a company's value through its role in reducing risks. Supply chain disruptions, legal violations, and reputational damage are risks that can be identified and prevented by reporting on sustainability. Overall, Yu and Zhao (2015) conclude that promoting sustainability helps businesses maintain their position in the market over time and opens up better investment opportunities.

6. CONCLUSIONS

Based on the research, it can be concluded that:

(1) Company size positively affects the quality of Sustainability Report item disclosure. This result indicates that the larger the company, the better the quality of the content of the Sustainability Report it produces.

(2) Profitability does not affect the quality of the Sustainability Report item disclosure, and this result indicates that a company's performance in generating profits is not a factor that drives higher-quality disclosure of sustainability items.

(3) Leverage does not affect the quality of Sustainability Report item disclosure, indicating that the use of greater leverage does not make a company more likely to issue higher-quality Sustainability Reports.

(4) The quality of the Sustainability Report positively affects company value, which means that higher-quality Sustainability Reports lead to an increase in a company's value.

Based on the research results, the following suggestions can be made for future research to develop the study further:

(1) Future research can expand the study population and add more observation periods.
(2) Future research can include other elements that impact how Sustainability Reports are presented, given that the elements used in this study are limited.
(3) Future research can examine the differences between industrial sectors in the impact of the quality of Sustainability Reports on company value. Such studies can help understand whether sustainability information disclosure is more important for some industrial sectors than others in creating company value.

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