The 1st International Student Conference on Economics and Business Excellence (ISCEBE) 2024
e-ISSN: xxxx-xxxx/Vol.1/SI-ISCEBE (2024)

THE ROLE OF THE BOARD ON SUSTAINABILITY DISCLOSURE

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Abstract

This study examines the effect of capital structure on sustainability disclosure moderated by the board size variable. The research sample included 15 companies in the industry, energy, and essential materials sectors listed on the Indonesia Stock Exchange. The research observation period was 2020-2023. This study uses a quantitative approach. The data collection method is documentation through secondary data collection on annual financial reports and sustainability reports; the data analysis technique used is moderated regression analysis (MRA) using SPSS software. The results of the study show that capital structure has a negative effect on sustainability disclosure. In addition, board size can weaken the influence of capital structure on sustainability disclosure. Future research can explore broader sectors to gain deeper insights and use share ownership as an independent variable.

Keywords: Capital structure, board size, sustainability disclosure

Introduction

In recent years, environmental information disclosure (EID) has been a hot topic with increasingly severe deterioration of the ecological environment. In an era of increasing environmental and social awareness, sustainability disclosure has become crucial for companies to demonstrate their commitment to sustainable practices. As stated by KPMG (2020) "Sustainability reporting, particularly through ESG metrics, has become essential for companies to communicate their environmental and social impacts to stakeholders" emphasizes the importance of sustainability reports that focus on ESG (Environmental, Social, and Governance) metrics. These sustainability reports not only serve to fulfill increasingly stringent regulations but also play an essential role in improving the company's reputation in the eyes of stakeholders. ESG metrics are used to measure a company's performance in three key areas: environmental impact, social relations, and governance practices. By using these metrics, companies can actively communicate information about their impact on the environment and society to investors, customers, employees and the wider community. Clear communication on ESG performance helps build trust and strengthen relationships with stakeholders.

One of the main reasons companies make ESG disclosures is to reduce information asymmetry and conflicts of interest between shareholders (principals) and top management (agents). Adequate ESG disclosure can increase accountability and transparency, and lower agency costs. By definition, ESG disclosure is a voluntary reporting process that provides stakeholders with information related to a company's operations from an environmental, social and governance perspective. This practice is also influenced by board composition (Mangena et al., 2012) ESG disclosure has supported corporate sustainable development and integrated reporting (one report) in annual reports. Good disclosure can provide a competitive advantage, encourage innovation, and attract investors increasingly concerned about sustainability issues. Companies demonstrate their commitment to social and environmental responsibility through transparency in sustainability reporting. Sustainability disclosure is not just an obligation, but also a smart strategy to achieve long-term sustainability. In this context, sustainability disclosure is represented by ESG disclosure, as both are complementary in describing a company's impact and commitment to sustainability. The importance of ESG disclosure enables companies to develop more efficient businesses. Therefore, if the company has transparency and quality internal management of the provision of ESG disclosure, the company will reduce the risk of fraud, and product costs and improve product quality, productivity, and profitability.

A company's capital structure, which includes the proportion of debt and equity, is essential in determining its ability to invest in sustainability practices. Companies with a stable capital structure, for example, with a higher proportion of equity and well-managed debt, will have more resources to allocate to sustainability initiatives. This stability allows companies to invest in green technologies, social responsibility programs and sustainable production practices without being burdened by pressing debt

obligations. In addition, companies with lower financial leverage tend to reduce financial risk, giving them the flexibility to innovate and adapt to the demands of an increasingly sustainability-focused market. Thus, a sound capital structure supports the development of sustainability practices and encourages transparent ESG disclosures. This helps companies meet stakeholder expectations, enhance their reputation in the market, and attract the attention of investors increasingly concerned about sustainability issues. In other words, investments supported by a strong capital structure will positively impact ESG disclosure, creating a win-win cycle between sustainability and overall corporate performance.

In the context of increasing awareness of environmental and social issues, research on ESG and sustainability disclosures has become very important. Although many companies in the energy and basic materials sectors have adopted sustainability practices, there are still challenges in implementing transparent and accountable disclosures. One of the main issues is the lack of understanding of how capital structure and board size can affect the quality of these disclosures. This lack of knowledge can result in information asymmetry between shareholders and management, creating conflicts of interest and harming the company's reputation. This study aims to identify and analyze the factors that influence sustainability disclosures and understand how board size and capital structure can contribute to improving the quality of ESG disclosures. By understanding these dynamics, companies can better meet stakeholder expectations, reduce the risks associated with neglecting sustainability issues, and ultimately achieve long-term sustainability goals.

Considering the importance of sustainability disclosures in an increasingly competitive and socially responsible business context, this study aims to provide a deeper understanding of how capital structure and board size may affect the quality of ESG disclosures. This study focuses on the relationship between these variables and explores the practical implications for companies in improving their transparency and accountability. Thus, the study results are expected to provide valuable insights for stakeholders, including investors, management, and policymakers, to encourage better sustainability practices in the future.

Literature Review and Hypothesis Development

Capital structure is a long-term support consisting of own capital and foreign capital, where own capital consists of various types of shares and retained (Yusintha & Suryandari, 2010). The utilization of foreign capital or long-term debt will give the right weight, and how much capital utilization is used determines the amount of financial leverage the company uses. Capital structure plays an essential role in determining the level of environmental information disclosure by companies, especially in the context of listed companies. Agency theory suggests that using debt can reduce the conflict of interest between shareholders and management, encouraging managers to pay more attention to stakeholders' interests. (Chang, 2013), including environmental information disclosure. Companies with higher levels of debt tend to face more significant pressure from creditors and other stakeholders to demonstrate compliance with strict environmental regulations. In this case, environmental disclosure is seen as a step to improve the company's image and as a way to mitigate financial risks that may arise from ignoring environmental issues. In addition, companies with a capital structure that focuses more on long-term debt often feel compelled to make more transparent disclosures about their environmental practices, as this can help strengthen relationships with creditors and increase investor confidence. Therefore, it can be argued that a higher capital structure, especially in the form of debt, positively impacts the level of environmental information disclosure, which in turn can improve a company's environmental performance and reduce the risks faced. This is in line with research conducted by Chang, 2013 which states that capital structure has a significant positive impact on environmental information disclosure (EID). However, other studies are not in line such as research conducted by Radhakrishna, 2024 which says a negative relationship exists between the debt-equity ratio and ESG score.

Hypothesis 1: Capital Structure is positively associated with sustainability disclosure (ESG Score).

Stakeholder theory suggests that larger board sizes bring diverse perspectives and expertise, allowing for more in-depth discussions on sustainability issues, encouraging better decisions regarding ESG disclosures. In addition, board committees formed within a larger board can reduce information asymmetry between management and shareholders, ensuring ESG disclosure obligations are met with transparency. The decision-making dynamics strengthened by larger board size also enables a more balanced consideration between short-term gains and long-term sustainability. Larger boards are positively associated with higher quality sustainability disclosures, as they bring diverse perspectives and expertise. (Casciello et al., 2023). Board committees work for companies mainly to reduce information

asymmetry and conflict of interest between principles (shareholders) and their agents (top management). Most of the previous related studies found a positive influence of board size on voluntary disclosure (Wijayanti & Setiawan, 2023; Suttipun, 2021; Bilgileri et al., 2023). Thus, this hypothesis confirms that larger board size contributes positively to the relationship between capital structure and ESG disclosure, enhancing firms' capacity to manage and communicate their sustainability practices.

Hypothesis 2: There was a positive influence of board size between capital structure on ESG Disclosure

Methods

This study employs a quantitative method approach. The quantitative approach is that this research focuses a lot on interpreting and producing data in the form of numbers. Research data sources can be grouped into two types: primary data and secondary data. The data used in this study is secondary data sourced from annual reports and sustainability reports of the industry, energy, and essential materials listed on the Indonesia Stock Exchange from 2020 to 2023. The research data was obtained from www.idx.co.id. The data will be further processed using SPSS 27. The dependent variable used in this study is sustainability disclosure, while the independent variable is capital structure. In addition, the moderating variable of this study is board size.

We measure Sustainability Disclosure with Refinitiv ESG scores as ESG Information Disclosure. Since Refinitiv rates firms overall and in the respective ESG pillar, we can follow current studies (e.g., Liu et al., 2024; Vihara, n.d.; Habermann & Bernhard, 2023) and investigate the relationship on a more granular basis.

The capital structure variable is proxied using DER (Wulandari & Istiqomah, 2024). This ratio is known by looking at all debt, including current debt with all equity. This ratio is useful for knowing the ability of each rupiah of its capital to be used as debt collateral. The capital structure variable proxied by DER is calculated using the formula:

$$\text{DER} = \frac{Total\ Debt}{Total\ Equity}$$

In this study, the board size is proxied by the Number of board committees (People), following (Suttipun, 2021). This research uses descriptive statistical analysis, classical assumption test, and hypothesis testing as analysis techniques. The purpose of this analysis is to determine whether or not there is an influence of the independent variables, including capital structure, on the dependent variable, ESG disclosure, with board size as moderation. The Moderated Regression Analysis (MRA) equation model can be formulated as follows:

Regression Model I

$$Y = \alpha + \beta_1 X + e$$

Regression Model II

$$Y = \alpha + \beta_1 X + \beta_2 XZ + e$$

Description:

Y	= ESG Disclosure
A	= Constant
β 1-2	= Regression Coefficient
X	= Capital Structure
Z	= Board size
XZ	= Interaction between Capital Structure and Board size
e	= Error Item

Results and Discussions

Descriptive statistical analysis in this research produces research variable data information which includes standard deviation, lowest value (minimum), highest value (maximum), and average (mean). The results of descriptive statistical analysis that can provide a summary of this research are as follows:

Table 1 Statistical Analysis Results Description

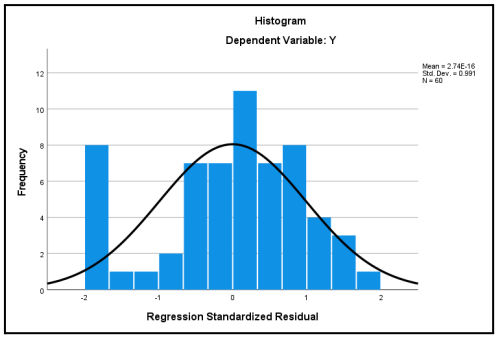
Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Y	60	25.7400	88.8300	58.539167	17.4063108
X	60	.00	20.35	1.3861	3.21999
Z	60	3.00	9.00	6.1833	1.45546
Valid N (listwise)	60				

Based on the descriptive statistical analysis Table 2, shows the results of the 2020-2023 descriptive statistical test. The results of this test describe the amount of industry, energy, and basic material sector company data studied (N) of 60. ESG Disclosure ranges from 63.09 with a minimum value of 25.74 and a maximum value of 88.83. The mean value of 58.539167 indicates that companies disclose ESG of 58.539167. The standard deviation value of 17.4063108 indicates that this value is smaller than the average, so the data distribution in the sustainability report is not comprehensive.

Classical Assumption Test

Table 2 Normality Test



Based on the graph presented above, it can be seen that the shape of the histogram follows the diagonal line drawn from -2 to 2 and the shape of the curve does not lean towards the right or left. This means that the data is normally distributed and the regression model has met the assumptions of normality.

Regression Model Test Results I

Table 3 Coefficient Test Results

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.257[a]	.066	.050	16.9640097

a. Predictors: (Constant), X

The results above can show the Adjusted R Square value of 0.05 or 5%. If interpreted, the independent variable, namely capital structure in the regression model, is 5% of the contribution of influence or proportion to the dependent variable, namely ESG Disclosure. In comparison, the rest (100% - 5% = 95%) is influenced by other factors not included in this study.

Table 4 F Statistical Test Results

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1184.697	1	1184.697	4.117	.047[b]
	Residual	16691.102	58	287.778		
	Total	17875.800	59			

a. Dependent Variable: Y

b. Predictors: (Constant), X

As seen from Table 4, the Fcount value is 4.117 with a sig level of 0.047 smaller than 0.05. This shows that capital structure (X) affects ESG Disclosure.

Table 5 T Statistical Test Results

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	60.468	2.387		25.327	<,001
	X	-1.392	.686	-.257	-2.029	.047

a. Dependent Variable: Y

The Regression Equation obtained:

$$Y = 60.468 – 1.392X + e$$

The constant value of 60.468 shows the value of ESG Disclosure when the Capital Structure is equal to 0. The coefficient value is -1.392. This indicates that each one-unit increase in Capital Structure will reduce the value of Y by 1.392, assuming other variables remain constant.

In the table of t-test results that have been presented, it can be seen that the Capital Structure variable has a t-count of -2.029. In addition, the Sig. level is 0.047 (<0.05). Hence, it can be concluded that Ho is accepted and H1 is rejected, so Capital Structure significantly negatively affects ESG Disclosure. This indicates that an increase in the value of Capital Structure will be associated with a decrease in the value of ESG Disclosure.

Regression Model Test Results II

Table 6 Regression Model II

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.281[a]	.079	.046	16.9970778

a. Predictors: (Constant), XZ, X

In Table 6, the Adjusted R square number shows the coefficient of determination or the role of variance (independent variables in the relationship with the dependent variable). The table shows a decrease in the Adjusted R square value from regression model I to regression model II of 0.004 (the R square number in regression model I is 0.050). The adjusted R square figure of 0.046 indicates that 4.6% of the ESG Disclosure (Y) variable can be explained by the Capital structure (X) variable moderated by board size (Z), other factors explain the rest.

Table 7 Regression Model Test Results II

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	61.036	2.478		24.635	<,001
	X	-5.456	4.669	-1.009	-1.169	.247
	XZ	.543	.617	.760	.880	.383

a. Dependent Variable: Y

The Regression Equation obtained:
Y = 61.036 – 5.456X + 0.543XZ + e

In the table of t-test results that have been presented, it can be seen that the XZ variable has a count of 0.88. In addition, the Sig. level is 0.383 (>0.05). Hence, it can bel concluded that Ho is rejected and H1 is accepted. This shows that board size wilkens the relationship between capital structure and ElSG Disclosure.

Conclusion and Suggestion

This study investigates the effect of capital structure on sustainability disclosure, considering board size as a moderating variable. The focus of this study is on companies listed in the industrial, energy, and basic materials sectors on the Indonesia Stock Exchange during the period 2020-2023. The methodology used is quantitative, with data collection through annual reports and sustainability reports analyzed using standardized regression.

The results showed that there is a significant negative influence between capital structure and sustainability disclosure. This indicates that companies with higher debt levels tend to disclose their sustainability practices less. In addition, board size serves as a modelling factor that weakens the effect of capital structure on ESG disclosure. A larger board can provide more diverse perspectives and encourage more in-depth discussions on sustainability practices, but in this context, board size is not enough to overcome the negative impact of a debt-oriented capital structure.

This research also highlights the importance of transparency and accountability in ESG information disclosure, which fulfils regulations and enhances the company's reputation at the levels of stakeholders. With increasing attention to sustainability, companies are required to be more proactive in reporting the social and environmental impacts of their operations. The findings show the challenges faced by companies in achieving a balance between financial needs and commitment to sustainable practices. Overall, this study makes a meaningful contribution to understanding the dynamics of between capital structure, board sales, and sustainability disclosure, as well as the implications for companies seeking to increase transparency and accountability in their sustainability reports.

For future research, it is recommended that researchers explore a broad section to gain deeper insights into the influence of capital structure and board size on ESG disclosure. Researchers can also consider other variables, such as share ownership and board composition, which may significantly affect the quality of sustainability disclosures. In addition, longitudinal analysis can provide a better understanding of the dynamics of changes in disclosure practices as awareness of sustainability issues increases. Further research can also explore the impact of ESG disclosures on firm performance in the long run and how firms can implement more effective strategies in enhancing transparency and accountability in this area of sustainability.

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