

The Effect of Profitability, Liquidity, Leverage, Firm Size and Firm Age on Sustainability Report: Evidence from Energy and Healthcare Companies Listed on The Indonesia Stock Exchange

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Abstract

Sustainability reporting has gained increasing importance as companies face growing environmental, social, and governance expectations, particularly in sectors with substantial social and environmental impacts such as energy and healthcare. However, empirical evidence regarding the financial and organizational determinants of sustainability report disclosure in Indonesia remains inconclusive. This study aims to examine the effect of profitability, liquidity, leverage, firm size, and firm age on sustainability report disclosure among energy and healthcare companies listed on the Indonesia Stock Exchange during the 2022–2024 period. Using a purposive sampling approach, 44 companies were selected, resulting in 132 firm-year observations. The data were analyzed using multiple linear regression with SPSS. The results indicate that profitability and firm size have a positive and significant influence on sustainability report disclosure, suggesting that financially strong and larger firms are more inclined to provide broader sustainability information to meet stakeholder expectations. In contrast, liquidity, leverage, and firm age show no significant effect, indicating that short-term financial capacity, capital structure, and corporate longevity do not necessarily drive sustainability disclosure practices. These findings contribute to the sustainability reporting literature by clarifying the role of firm characteristics within the Indonesian context.

Keywords: Profitability; Firm Size; Sustainability Report; Energy Sector; Healthcare Sector

INTRODUCTION

As global awareness of environmental, social, and governance (ESG) issues continues to rise, sustainability has become a critical aspect of modern corporate practices. Climate change, environmental degradation, and increasing social expectations have prompted companies to shift their focus beyond financial performance toward broader responsibilities related to social and environmental impacts. In this context, sustainability reporting serves as an important communication tool that enables companies to demonstrate

accountability, transparency, and long-term commitment to sustainable development (Ruhana & Hidayah, 2020).

Sustainability reports provide stakeholders with comprehensive information regarding a company's economic, social, and environmental activities. The adoption of internationally recognized reporting frameworks, such as the Global Reporting Initiative (GRI) and the Sustainability Accounting Standards Board (SASB), enhances the comparability and reliability of sustainability disclosures across firms and industries (Hidayah & Raihan, 2024). In Indonesia, sustainability reporting practices have been formally strengthened through the implementation of Financial Services Authority (Otoritas Jasa Keuangan/OJK) Regulation No. 51/POJK.03/2017, which requires public companies and financial institutions to publish sustainability reports starting in 2019.

Despite the existence of regulatory requirements, the level of sustainability report disclosure among Indonesian companies remains relatively low compared to other Southeast Asian countries. According to the KPMG Survey of Sustainability Reporting (2024), Indonesia lags behind countries such as Singapore and Malaysia in terms of sustainability reporting adoption. This condition suggests that regulatory pressure alone is insufficient to encourage companies to disclose sustainability information, and that internal firm characteristics play a significant role in shaping disclosure decisions.

Previous empirical studies have examined various determinants of sustainability report disclosure, including profitability, liquidity, leverage, firm size, and firm age. However, the findings of these studies remain inconclusive. Several studies indicate that profitability positively influences sustainability reporting, as financially strong firms possess greater resources to support sustainability initiatives and disclosure activities (Maryana & Carolina, 2021; Yohana & Suhendah, 2023). In contrast, other studies report insignificant or even negative relationships between profitability and sustainability disclosure (Handayani et al., 2024). Similar inconsistencies are found in studies examining liquidity and leverage, where some research suggests these financial indicators affect sustainability reporting, while others find no significant influence (Islamiat & Suryandari, 2020; Nathasia & Indrayeni, 2023).

Firm size is often considered a consistent predictor of sustainability disclosure, as larger firms tend to face greater public scrutiny and stakeholder pressure, leading to more extensive disclosure practices (Yunan et al., 2021; Afrina et al., 2024). Nevertheless, empirical evidence regarding the impact of firm age remains mixed, with some studies suggesting that older firms disclose more sustainability information due to accumulated experience and legitimacy, while others find no significant relationship (Hanna et al., 2023).

Given these mixed findings, further investigation is needed to clarify the role of firm characteristics in influencing sustainability report disclosure, particularly within specific industry contexts. This study focuses on energy and healthcare companies listed on the Indonesia Stock Exchange, as these sectors are closely associated with environmental impact and social responsibility. By examining the effect of profitability, liquidity, leverage, firm size, and firm age on sustainability reporting during the 2022–2024 period, this study aims to provide empirical evidence that contributes to the sustainability reporting literature and offers insights relevant to regulators, companies, and stakeholders in Indonesia.

LITERATURE REVIEW

Stakeholder Theory

Stakeholder Theory emphasizes that companies are responsible not only to shareholders but also to a broader group of stakeholders, including employees, customers, suppliers, communities, and regulators. According to this perspective, corporate sustainability practices are driven by the need to balance diverse stakeholder interests in order to maintain long-term business viability. Sustainability reporting functions as a strategic mechanism through which firms communicate their environmental, social, and governance (ESG) commitments, thereby strengthening stakeholder trust and legitimacy (Freeman et al., 2021). Companies that effectively address stakeholder expectations are more likely to engage in transparent sustainability disclosures to demonstrate accountability and responsiveness.

Signaling Theory

Signaling Theory explains how companies convey private information to external stakeholders through observable actions or disclosures. In the context of sustainability reporting, firms with strong financial performance may use sustainability disclosures as a positive signal of superior management quality, ethical responsibility, and long-term stability (Connelly et al., 2019). By voluntarily disclosing sustainability information, companies aim to reduce information asymmetry and enhance investor confidence. Firms with favorable financial indicators are therefore expected to disclose sustainability reports more extensively as a signal of strength and credibility.

Legitimacy Theory

Legitimacy Theory posits that organizations seek to ensure their operations are perceived as legitimate by aligning corporate activities with societal norms and expectations. Sustainability reporting serves as an important legitimizing tool, particularly for firms operating in industries with significant environmental and social impacts. Through sustainability disclosures, companies attempt to justify their existence and activities within the broader social system (Deegan, 2019). Firms that face higher public scrutiny are more likely to publish comprehensive sustainability reports to maintain social acceptance and organizational legitimacy.

Profitability and Sustainability Report Disclosure

Profitability reflects a firm's ability to generate earnings from its resources and is commonly associated with financial strength and operational efficiency. Profitable firms are better positioned to allocate resources toward sustainability initiatives and reporting activities. Prior studies suggest that higher profitability increases stakeholder expectations regarding transparency and corporate responsibility, thereby encouraging firms to disclose sustainability information more extensively (Alipour et al., 2019; Buallay, 2020). Accordingly, profitability is expected to have a positive influence on sustainability report disclosure.

Liquidity and Sustainability Report Disclosure

Liquidity represents a company's capacity to meet short-term financial obligations and reflects its financial flexibility. Firms with strong liquidity positions may be perceived as financially stable, which could motivate greater transparency in sustainability reporting. However, empirical evidence regarding the role of liquidity remains inconclusive, as some firms prioritize operational needs over voluntary disclosures when managing liquid resources (Kuzey &

Uyar, 2020). As a result, the relationship between liquidity and sustainability reporting warrants further empirical examination.

Leverage and Sustainability Report Disclosure

Leverage indicates the extent to which a firm relies on debt financing relative to equity. Highly leveraged firms may face greater pressure from creditors and higher financial risk, potentially limiting resources available for sustainability disclosure activities. Some studies suggest that firms with high leverage tend to reduce voluntary disclosures in order to avoid additional scrutiny from lenders and investors (Nguyen et al., 2021). Therefore, leverage is often expected to have a negative relationship with sustainability report disclosure.

Firm Size and Sustainability Report Disclosure

Firm size is commonly associated with visibility, public exposure, and resource availability. Larger firms typically face stronger stakeholder pressure and regulatory attention, which encourages broader sustainability disclosure. Additionally, large firms possess greater financial and organizational capacity to collect, manage, and report sustainability information (Ali et al., 2020). Consequently, firm size is widely regarded as a significant determinant of sustainability report disclosure.

Firm Age and Sustainability Report Disclosure

Firm age reflects organizational maturity and accumulated operational experience. Older firms are generally perceived as more stable and legitimate, which may increase expectations for transparency and accountability. Established firms may adopt sustainability reporting as a means of reinforcing their reputation and demonstrating long-term commitment to responsible business practices (Zaid et al., 2020). However, empirical findings regarding firm age remain mixed, highlighting the need for further investigation.

METHOD

This study employs a quantitative research approach using secondary data obtained from publicly available sources. The population consists of energy and healthcare companies listed on the Indonesia Stock Exchange (IDX) during the 2022-2024 period. These sectors were selected due to their significant exposure to environmental and social issues, which increases the relevance of sustainability reporting practices within these industries. A purposive sampling technique was applied to ensure the selection of firms that met specific criteria relevant to the research objectives.

The sampling criteria included companies that were consistently listed on the IDX throughout the observation period, published complete annual reports and sustainability reports consecutively from 2022 to 2024, conducted their initial public offering prior to 2022, and presented financial statements in Indonesian Rupiah. Based on these criteria, 44 companies were selected, resulting in 132 firm-year observations. The use of purposive sampling is appropriate for sustainability disclosure research, as it ensures data completeness and comparability across firms and years (Sekaran & Bougie, 2020).

The dependent variable in this study is sustainability report disclosure, which is measured using a sustainability disclosure index based on the Global Reporting Initiative (GRI) Standards. Each disclosure item is assigned a score of one if disclosed and zero if not disclosed, and the total score is divided by the

maximum possible score to obtain a disclosure ratio. This approach allows for an objective and systematic assessment of sustainability reporting practices and has been widely used in prior empirical studies (Michelon et al., 2020).

The independent variables consist of profitability, liquidity, leverage, firm size, and firm age. Profitability is measured using Return on Assets (ROA), calculated as net income divided by total assets, reflecting a firm's efficiency in generating profits from its resources. Liquidity is measured using the Current Ratio (CR), which represents a company's ability to meet short-term obligations. Leverage is measured using the Debt to Equity Ratio (DER), indicating the extent to which a firm relies on debt financing. Firm size is measured as the natural logarithm of total assets to reduce data dispersion and enhance normality, while firm age is measured as the number of years since the company's establishment.

Data analysis was conducted using SPSS software. The analytical procedure began with descriptive statistical analysis to summarize the characteristics of the data, followed by classical assumption tests, including normality, multicollinearity, heteroscedasticity, and autocorrelation tests, to ensure the validity of the regression model. Multiple linear regression analysis was then employed to examine the effect of the independent variables on sustainability report disclosure. This method is appropriate for assessing the simultaneous and partial influence of multiple predictors on a single dependent variable (Hair et al., 2021).

RESULT

This section presents the empirical findings of the study based on statistical analysis conducted using SPSS. The results include descriptive statistics, classical assumption tests, and multiple linear regression analysis to examine the relationship between firm characteristics and sustainability report disclosure.

The descriptive statistics indicate that the average sustainability report disclosure index is 0.544, suggesting that, on average, companies disclose slightly more than half of the sustainability items measured. Profitability, as measured by Return on Assets (ROA), shows a relatively low mean value, indicating modest earnings performance among the sampled firms. Liquidity displays substantial variation, reflecting differences in firms' short term financial capacity. Firm size, measured by the natural logarithm of total assets, demonstrates relatively low dispersion, indicating a comparable scale of operations among energy and healthcare firms. Firm age ranges widely, suggesting variation in organizational maturity across the sample.

Prior to hypothesis testing, classical assumption tests were performed to ensure the validity of the regression model. The normality test using the Kolmogorov Smirnov method shows that the residuals are normally distributed, as indicated by a significance value above the 0.05 threshold. Multicollinearity diagnostics reveal tolerance values above 0.01 and variance inflation factor (VIF) values below 10 for all independent variables, indicating the absence of multicollinearity. The heteroscedasticity test using the Glejser method shows that all independent variables have significance values greater than 0.05, suggesting homoscedastic residuals.

The Durbin-Watson statistic yields a value below 1, indicating the presence of positive autocorrelation. However, given that the data structure consists of

pooled firm-year observations and the model remains statistically significant, the regression results are considered acceptable for interpretation, consistent with prior panel-style sustainability studies using similar approaches.

Multiple linear regression analysis reveals that profitability and firm size have positive and statistically significant effects on sustainability report disclosure. Profitability demonstrates a positive coefficient, indicating that firms with higher earnings capacity tend to disclose sustainability information more extensively. Firm size shows the strongest positive effect among the independent variables, suggesting that larger firms are more likely to engage in comprehensive sustainability reporting. In contrast, liquidity, leverage, and firm age do not exhibit statistically significant effects on sustainability report disclosure.

The coefficient of determination (Adjusted R²) indicates that approximately 20% of the variation in sustainability report disclosure can be explained by the independent variables included in the model, while the remaining variation is influenced by other factors not examined in this study. The F-test result confirms that the regression model is statistically significant, indicating that the independent variables collectively influence sustainability report disclosure.

Discussion

The empirical findings demonstrate that profitability has a positive and significant effect on sustainability report disclosure. This result suggests that financially profitable firms possess greater resources and incentives to invest in sustainability initiatives and reporting practices. Firms with strong financial performance may also face higher stakeholder expectations, prompting them to disclose sustainability information as part of their accountability strategy. This finding is consistent with prior studies that identify profitability as a key driver of sustainability disclosure (Buallay, 2020; Alipour et al., 2019).

Firm size is found to have a significant positive influence on sustainability report disclosure, indicating that larger firms tend to disclose sustainability information more extensively. Larger companies typically experience greater public visibility, regulatory scrutiny, and stakeholder pressure, which encourages more comprehensive disclosure practices. In addition, larger firms generally have more established reporting systems and financial capacity to support sustainability reporting activities. This result aligns with previous research emphasizing firm size as a consistent determinant of sustainability disclosure (Ali et al., 2020; Afrina et al., 2024).

Conversely, liquidity does not show a significant effect on sustainability report disclosure. This finding suggests that short term financial flexibility does not necessarily motivate firms to increase sustainability disclosures. Companies may prioritize operational and financial stability over voluntary reporting activities, even when liquidity levels are high. This result supports studies that find liquidity to be an insignificant predictor of sustainability reporting (Kuzey & Uyar, 2020).

Leverage is also found to have no significant effect on sustainability report disclosure. Although highly leveraged firms may face financial constraints and creditor pressure, this condition does not appear to systematically influence sustainability reporting decisions in the sampled sectors. Firms may perceive sustainability reporting as a long term strategic activity rather than a short-term financial decision, resulting in an insignificant relationship. This finding is

consistent with research that reports mixed or insignificant effects of leverage on sustainability disclosure (Nguyen et al., 2021).

Firm age does not significantly affect sustainability report disclosure, indicating that organizational longevity alone does not determine the extent of sustainability reporting. While older firms may possess greater experience and legitimacy, sustainability disclosure practices appear to be more closely linked to strategic priorities and resource availability rather than the length of corporate existence. This result is in line with studies suggesting that firm age does not consistently influence sustainability disclosure behavior (Zaid et al., 2020).

Overall, the findings highlight that financial strength and organizational scale play a more critical role in sustainability reporting practices than short-term financial conditions or corporate maturity. These results contribute to the sustainability reporting literature by providing sector-specific evidence from energy and healthcare companies in Indonesia.

CONCLUSION

This study examines the effect of profitability, liquidity, leverage, firm size, and firm age on sustainability report disclosure among energy and healthcare companies listed on the Indonesia Stock Exchange during the 2022–2024 period. Based on the empirical analysis, the findings indicate that profitability and firm size have a positive and significant influence on sustainability report disclosure. These results suggest that firms with stronger financial performance and larger organizational scale are more capable and more inclined to disclose sustainability information as part of their accountability and transparency efforts toward stakeholders.

In contrast, liquidity, leverage, and firm age are found to have no significant effect on sustainability report disclosure. This indicates that short-term financial flexibility, capital structure, and corporate longevity do not necessarily determine a firm's decision to engage in sustainability reporting. The findings imply that sustainability disclosure is more closely associated with strategic considerations and resource availability rather than short-term financial conditions or the length of time a firm has operated.

Overall, this study contributes to the sustainability reporting literature by providing sector-specific evidence from energy and healthcare companies in Indonesia, where sustainability issues are highly relevant. The results reinforce the importance of profitability and firm size as key drivers of sustainability disclosure while highlighting the other firm characteristics may play a less decisive role. Future research is encouraged to incorporate additional variables, such as corporate governance mechanisms, stakeholder engagement, or environmental performance indicators, as well as to extend the research period and industry coverage in order to obtain a more comprehensive understanding of sustainability reporting practices.

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