Influence of Firm Size and Profitability on Sustainability Report Disclosure in Technology Sector Firms 2022–2024

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ABSTRACT

This study examines the influence of firm size and profitability on sustainability report disclosure among Indonesian technology firms listed on the Indonesia Stock Exchange (BEI) from 2022 to 2024, utilizing the Global Reporting Initiative (GRI) 2021 Standards. Despite regulatory mandates like POJK No. 51/POJK.03/2017, disclosure levels vary significantly in the technology sector, a key driver of Indonesia's digital economy. Employing a quantitative causal-comparative approach, the study analyzes data from five firms in the diversified digital and investment subsector, yielding 15 observations. Firm size is measured by the natural logarithm of total assets, and profitability by Return on Assets (ROA). Multiple linear regression results indicate a significant model ($F = 4.517$, $p = 0.034$, $R^2 = 0.430$), explaining 43% of disclosure variation. Firm size shows a positive but insignificant effect ($\beta = 0.017$, $p = 0.139$), suggesting size alone does not drive disclosure. Profitability exhibits a marginally significant positive effect at the 10% level ($\beta = 0.052$, $p = 0.086$), indicating profitable firms tend to disclose more to enhance stakeholder trust. The findings align with legitimacy and stakeholder theories, contributing to literature on technology sector disclosure and offering insights for firms and regulators to improve transparency. Limitations include a small sample size and exclusion of other variables like governance.

1. Introduction

Sustainability reporting has become a critical mechanism for companies worldwide to demonstrate accountability and transparency in their economic, social, and environmental impacts. In Indonesia, where the technology sector is a cornerstone of the burgeoning digital economy, the push for comprehensive sustainability disclosure has gained momentum, driven by regulatory requirements and growing stakeholder expectations. The technology sector, characterized by rapid innovation, reliance on intellectual capital, and dynamic business models, plays a pivotal role in advancing sustainable development. However, the extent of sustainability reporting in this sector varies significantly, raising questions about the internal factors influencing disclosure practices. This study examines the influence of firm size and profitability, measured by the natural logarithm of total assets and Return on Assets (ROA), respectively, on sustainability report disclosure among Indonesian technology firms from 2022 to 2024, using the Global Reporting Initiative (GRI) 2021 Standards as a measurement framework. Understanding these factors is essential, as they reflect a firm's capacity and strategic intent to communicate sustainability efforts, which can enhance stakeholder trust, strengthen corporate reputation, and align with global sustainability goals. By focusing on the technology sector, this research

addresses a critical industry where sustainability reporting serves as both a regulatory obligation and a strategic tool for legitimacy and competitive advantage in an increasingly digital and environmentally conscious world.

The importance of sustainability reporting lies in its ability to bridge the gap between corporate operations and societal expectations. As global awareness of environmental and social issues grows, stakeholders, including investors, regulators, and consumers, demand greater transparency from companies, particularly in sectors like technology that drive economic transformation. In Indonesia, the technology sector has seen exponential growth, fueled by digitalization and innovation, yet its sustainability practices remain underexplored. The sector's unique characteristics, such as reliance on intangible assets and rapid technological advancements, may influence how firms prioritize and disclose sustainability information. This study seeks to contribute to the academic and practical understanding of how internal factors shape these disclosures, offering insights for firms aiming to meet stakeholder expectations and for regulators seeking to enhance reporting frameworks. By leveraging recent data from 2022 to 2024, the research captures the evolving landscape of sustainability reporting in a post-pandemic era, where digital transformation and sustainability are increasingly intertwined.

1.1 Background

On social issues like data privacy and labor practices. The sector's prominence in driving The global emphasis on sustainability has reshaped corporate reporting, with firms increasingly required to disclose their environmental, social, and governance (ESG) impacts to maintain legitimacy and stakeholder trust. In Indonesia, regulatory frameworks such as Law No. 40/2007 on Limited Liability Companies and POJK No. 51/POJK.03/2017 mandate public companies to report sustainability information, aligning with international standards like the GRI. The technology sector, a key driver of Indonesia's digital economy, faces unique pressures due to its rapid innovation cycles, reliance on intellectual resources, and high stakeholder expectations for social and environmental responsibility. Prior studies present conflicting findings on the determinants of sustainability disclosure. For instance, Safitri and Ramadhan (2022) found that firm size significantly influences disclosure due to greater resources and public scrutiny, while Wulandari et al. (2021) reported insignificant effects in the technology sector, suggesting industry-specific dynamics. Similarly, the role of profitability is debated, with Rakhman and Sari (2023) arguing that profitable firms disclose more to enhance their reputation, while others, such as Zhang et al. (2023), find no significant impact. These inconsistencies underscore the need for a focused study on Indonesia's technology sector, using recent data from 2022 to 2024 and the standardized GRI 2021 framework to assess how firm size and profitability shape disclosure practices.

The technology sector's rapid growth in Indonesia, coupled with its unique operational characteristics, makes it an ideal context for studying sustainability reporting. Unlike traditional industries, technology firms often rely on intangible assets, such as software and intellectual property, which may reduce their environmental footprint but increase scrutiny economic digitalization amplifies the need for transparent reporting to meet the expectations of diverse stakeholders, including investors seeking sustainable investments and regulators enforcing

compliance. This study builds on prior research by focusing on a specific timeframe (2022–2024) that reflects post-pandemic recovery and heightened sustainability awareness, providing a contemporary perspective on how internal factors influence disclosure in a dynamic industry.

1.2 Problem Statement

Despite regulatory mandates and growing stakeholder pressure, the extent of sustainability report disclosure varies widely among Indonesian technology firms, highlighting a critical gap in understanding the role of internal factors like firm size and profitability. Larger firms, with greater resources and visibility, are expected to disclose more comprehensive sustainability reports, yet the technology sector's unique characteristics, such as its focus on digital innovation and intangible assets, may alter this relationship. Similarly, profitability, measured by ROA, is hypothesized to encourage disclosure as firms seek to signal financial strength and social responsibility to stakeholders, but empirical evidence remains inconsistent. Previous studies, such as those by Khan et al. (2021) and Malik and Hussain (2022), show mixed results, with some indicating a positive effect of firm size and profitability, while others find insignificant or negative impacts, particularly in the TECHNOLOGY sector. This research gap is particularly pronounced in Indonesia, where few studies have examined the technology sector using recent 2022–2024 data and GRI 2021 Standards. The study addresses two key questions: Does firm size significantly influence sustainability report disclosure in technology firms from 2022 to 2024? Does profitability (ROA) affect the extent of such disclosure in this period?

The variability in disclosure practices raises concerns about the effectiveness of current regulatory frameworks and the strategic priorities of technology firms. Without a clear understanding of how internal factors drive disclosure, firms may struggle to meet stakeholder expectations, and regulators may face challenges in enforcing consistent reporting standards. This study aims to fill this gap by providing empirical evidence on the influence of firm size and profitability, offering insights into the factors that shape transparency in a sector critical to Indonesia's economic future.

1.3 Objectives and Scope

This study aims to achieve the following objectives:

1. To analyze the significant influence of firm size, measured by the natural logarithm of total assets, on sustainability report disclosure in Indonesian technology firms from 2022 to 2024.
2. To examine the extent to which profitability, measured by Return on Assets (ROA), affects sustainability report disclosure in these firms during the same period.

The scope of the study is limited to technology firms listed on the Indonesia Stock Exchange (BEI) within the subsector of diversified digital and technology investment firms, specifically those with available sustainability reports for 2022–2024. The sample includes five firms—PT Elang Mahkota Teknologi Tbk (EMTK), PT Quantum Clovera Investama Tbk (KREN), PT Envy Technologies Indonesia Tbk (ENVY), PT Galva Technologies Tbk (GLVA), and PT

Sentral Mitra Informatika Tbk (LUCK)—selected through purposive sampling to ensure data completeness. The study relies on secondary data from annual and sustainability reports, focusing on quantitative analysis using the GRI 2021 Standards. Limitations include the small sample size, which may restrict generalizability, and the exclusion of other potential variables, such as corporate governance, institutional ownership, or stakeholder pressure, which could also influence disclosure practices. By focusing on a specific industry and timeframe, the study provides targeted insights into the determinants of sustainability reporting in a rapidly evolving sector.

2. Literature Review

Sustainability reporting has become a vital mechanism for companies to communicate their environmental, social, and economic impacts, aligning with stakeholder expectations and regulatory requirements. This section synthesizes key findings from prior studies, theoretical

The concept of sustainability reporting is further informed by the triple bottom line framework, which emphasizes balancing economic prosperity, environmental quality, and social equity (Gray et al., 2014). In Indonesia, regulatory frameworks such as Law No. 40/2007 and POJK No. 51/POJK.03/2017 mandate sustainability disclosures, yet compliance varies, particularly in the technology sector, which is characterized by rapid innovation and unique operational dynamics (Hahn & Kühnen, 2013). The GRI Standards, particularly the 2021 version, provide a structured approach to measure disclosure quality, making them suitable for assessing technology firms' reporting practices (Purnomo et al., 2024). This frameworks, and methodologies relevant to the influence of firm size and profitability on sustainability report disclosure, particularly in the technology sector. Grounded in legitimacy theory (Suchman, 1995) and stakeholder theory (Freeman, 1984), the review establishes a foundation for the methodology by highlighting inconsistencies in prior research and identifying areas for further exploration. The focus on Indonesia's technology sector, using data from 2022 to 2024 and the Global Reporting Initiative (GRI) 2021 Standards, addresses a specific context where rapid digitalization and regulatory mandates intersect, necessitating a deeper understanding of internal factors driving disclosure practices.

Legitimacy theory posits that firms disclose sustainability information to gain societal approval and maintain their social contract with stakeholders (Suchman, 1995; Deegan, 2002). This is particularly relevant for technology firms, which face scrutiny over issues like data privacy and environmental impact despite their reliance on intangible assets. Stakeholder theory complements this perspective, emphasizing that firms must address the needs of diverse stakeholders, including investors, regulators, and communities, to ensure long-term viability (Freeman, 1984; Clarkson et al., 2008). These theories provide a conceptual framework for understanding why firm size and profitability may influence disclosure, as larger and more profitable firms are likely to face greater stakeholder pressure and have more resources to invest in comprehensive reporting (Cho & Patten, 2007).

study leverages these theories and standards to examine how firm size and profitability shape disclosure in a sector critical to Indonesia's digital economy.

2.1 Related Work

Prior studies have extensively explored the determinants of sustainability disclosure, with firm size and profitability emerging as key variables, though findings are inconsistent. Khan et al. (2021) found that larger firms in emerging economies disclose more sustainability information due to heightened stakeholder scrutiny and greater resource availability, a finding aligned with legitimacy theory (Suchman, 1995). Similarly, Safitri and Ramadhan (2022) reported that firm size significantly influences sustainability disclosure in Indonesian firms, as larger companies face greater public pressure to demonstrate social and environmental responsibility. However, Fitriani et al. (2021) found that firm size has an insignificant effect in the technology sector, suggesting that industry-specific factors, such as reliance on intangible assets, may weaken the relationship between size and disclosure. This contrasts with the current study, which focuses specifically on Indonesian technology firms from 2022 to 2024, using GRI 2021 Standards to ensure a standardized measurement of disclosure.

Profitability's impact on sustainability disclosure also varies across studies. Lee and Jung (2022) identified a significant positive relationship between profitability (measured by ROA) and ESG disclosure in global technology firms, arguing that profitable firms use disclosure to enhance their corporate reputation, consistent with signaling theory (Spence, 1973). Rahayu and Septiani (2020) and Utami et al. (2019) corroborated this, finding that higher profitability in Indonesian firms encourages sustainability reporting to signal financial strength and social responsibility. Conversely, Zhang et al. (2023) found that profitability has an insignificant effect on disclosure in Asian technology firms, possibly due to varying stakeholder expectations or resource allocation priorities. Malik and Hussain (2022) even reported a negative effect of profitability on disclosure in emerging markets, suggesting that profitable firms may prioritize financial performance over non-financial reporting. These discrepancies highlight the need for context-specific research, which this study addresses by focusing on Indonesia's technology sector.

Other studies have explored additional variables, such as corporate governance and ownership structure. For instance, Ahmed and Saleem (2022) noted that ROA positively affects voluntary sustainability disclosure, but this effect is moderated by foreign ownership, which encourages greater transparency. Purnomo et al. (2024) examined firm size as a moderating variable in the relationship between profitability, leverage, and disclosure in the infrastructure sector, finding significant effects, unlike the technology-focused scope of this study. These prior works provide a comparative basis but differ from the current research in their industry focus, time period, or measurement standards, underscoring the need for a tailored investigation into Indonesia's technology sector using recent data.

2.2 Research Gap

Despite the extensive literature on sustainability disclosure, significant gaps remain, particularly in the context of Indonesia's technology sector. First, prior studies present conflicting findings on the influence of firm size and profitability, with some reporting significant effects (Khan et al., 2021; Rahayu & Septiani, 2020) and others finding insignificant

or negative impacts (Fitriani et al., 2021; Malik & Hussain, 2022). These inconsistencies suggest that industry-specific dynamics, such as the technology sector's reliance on digital innovation and intangible assets, may alter the relationship between internal factors and disclosure practices. Second, few studies have focused on Indonesian technology firms, which face unique pressures due to rapid digitalization and regulatory mandates like POJK No. 51/POJK.03/2017. Third, the use of recent data from 2022 to 2024, combined with the GRI 2021 Standards, is underrepresented in existing research, limiting the applicability of findings to the current regulatory and economic context. This study addresses these gaps by examining how firm size and profitability influence sustainability disclosure in Indonesian technology firms, using a standardized GRI framework and recent data to provide contemporary insights into an underexplored sector.

3. Methodology

This study employs a quantitative causal-comparative design to examine the influence of firm size and profitability on sustainability report disclosure in Indonesian technology firms listed on the Indonesia Stock Exchange (BEI) from 2022 to 2024. The approach is chosen to identify cause-and-effect relationships between independent variables (firm size, measured by Ln Total Assets, and profitability, measured by ROA) and the dependent variable (sustainability disclosure, measured by GRI 2021 Standards). This design aligns with the objectives of analyzing the impact of these factors in the technology sector, where disclosure practices vary despite regulations like POJK No. 51/POJK.03/2017 (Ghozali, 2018). The methodology includes data collection from secondary sources, multiple linear regression analysis, and validation through classical assumption tests to ensure reliable results, contributing to insights for firms and regulators.

3.1 Data Collection

Secondary data were collected from annual reports, sustainability reports, the BEI website (www.idx.co.id), and company websites, chosen for their reliability and relevance. The sample comprises five technology firms in the diversified digital and investment subsector: PT Elang Mahkota Teknologi Tbk, PT Quantum Clovera Investama Tbk, PT Envy Technologies Indonesia Tbk, PT Galva Technologies Tbk, and PT Sentral Mitra Informatika Tbk. Purposive sampling ensured firms had complete 2022–2024 sustainability reports, yielding 15 observations. This method supports the objectives by focusing on relevant firms with consistent data (Ghozali, 2018).

3.2 Analysis Techniques

Multiple linear regression, conducted using SPSS or EViews, was used to assess the influence of firm size (Ln Total Assets) and profitability (ROA) on sustainability disclosure (GRI Index, percentage of disclosed GRI 2021 items). The process involved: (1) entering data into Excel; (2) running regression to estimate coefficients; (3) conducting t-tests for partial effects; and (4) performing an F-test for model significance. This method is suitable for quantifying relationships and aligns with the objectives of testing hypotheses (Gujarati, 2015; Santoso, 2017).

3.3 Validation

Classical assumption tests ensured result reliability (Ghozali, 2018). Normality was tested using Kolmogorov-Smirnov and Shapiro-Wilk tests; non-normal data ($p < 0.05$) were addressed via the Central Limit Theorem (n=15). Multicollinearity was checked using VIF (<10), confirming no issues (VIF ≈ 1.128). The Glejser test verified no heteroscedasticity, and the Durbin-Watson test (≈2.0) confirmed no autocorrelation. These tests ensure robust findings, supporting the study's objectives (Santoso, 2017).

4. Results and Discussion

This section presents the findings from the multiple linear regression analysis examining the influence of firm size and profitability on sustainability report disclosure among Indonesian technology firms listed on the Indonesia Stock Exchange (BEI) from 2022 to 2024, using the Global Reporting Initiative (GRI) 2021 Standards. The analysis is based on 15 observations from five firms in the diversified digital and investment subsector: PT Elang Mahkota Teknologi Tbk (EMTK), PT Quantum Clovera Investama Tbk (KREN), PT Envy Technologies Indonesia Tbk (ENVY), PT Galva Technologies Tbk (GLVA), and PT Sentral Mitra Informatika Tbk (LUCK). The results are displayed in **Table A1: Descriptive Statistics** and **Table A2: Regression Results** from the appendix of the original research paper, which effectively summarize the variable characteristics and statistical outcomes. A detailed narrative describes the trends, patterns, and statistical significance of the findings, contextualizing them within the research objectives. No additional charts or figures are included, as the tables provide sufficient clarity for the quantitative data, consistent with the original paper's presentation.

4.1 Key Findings

The study analyzed 15 observations over three years (2022–2024) from the five selected technology firms.

Table A1: Descriptive Statistics

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Ln Total Assets	15	23.52	31.72	26.9560	2.99375
ROA (%)	15	-3.750	0.950	-0.29600	1.124950
GRI Index (%)	15	0.200	0.600	0.42000	0.136015

- **Sustainability Disclosure (GRI Index)**: The GRI Index, representing the percentage of disclosed items per GRI 2021 Standards, had a mean of 0.420 (42%), with a range from 0.200 (20%) to 0.600 (60%) and a standard deviation of 0.136015. This indicates moderate variability in disclosure levels, suggesting that while some firms achieved relatively high compliance with GRI standards, others disclosed only a fifth of the required items, reflecting inconsistent reporting practices.

- **Firm Size (Ln Total Assets)**: Firm size, measured as the natural logarithm of total assets, had a mean of 26.9560, ranging from 23.52 to 31.72, with a standard deviation of 2.99375. The wide range and high standard deviation highlight significant diversity in the scale of operations among the sampled firms, from smaller entities to larger conglomerates within the technology subsector.
- **Profitability (ROA)**: Profitability, measured by Return on Assets (ROA), showed a mean of -0.296% (indicating an average loss), with a range from -3.750% to 0.950% and a standard deviation of 1.124950. The negative mean and high variability suggest that some firms faced financial challenges, while others achieved modest profitability, reflecting the volatile nature of the technology sector during the study period.

Table A2: Regression Results

Variable	Coefficient	Std. Error	t	p-value
Constant	-0.014	0.288	-0.049	0.962
Ln Total Assets	0.017	0.011	1.585	0.139
ROA (%)	0.052	0.028	1.870	0.086

The overall regression model was statistically significant ($F = 4.517$, $p = 0.034$), indicating that the combination of firm size and profitability significantly predicts sustainability disclosure. The R^2 value of 0.430 shows that 43% of the variation in the GRI Index is explained by the independent variables, while the remaining 57% may be attributed to other factors not included in the model, such as corporate governance or stakeholder pressure.

- **Firm Size (Ln Total Assets)**: The coefficient for firm size was positive ($\beta = 0.017$, standard error = 0.011), suggesting a slight increase in disclosure with larger firm size, but the effect was statistically insignificant ($t = 1.585$, $p = 0.139$). This indicates that firm size does not significantly influence sustainability disclosure in the sampled technology firms.
- **Profitability (ROA)**: The coefficient for ROA was positive ($\beta = 0.052$, standard error = 0.028) and marginally significant at the 10% level ($t = 1.870$, $p = 0.086$). This suggests a weak positive relationship, where higher profitability is associated with increased disclosure, though the effect is not robust at the conventional 5% significance level.
- **Constant**: The intercept was -0.014 (standard error = 0.288, $t = -0.049$, $p = 0.962$), indicating no significant baseline effect when firm size and profitability are zero.

These findings reveal that profitability has a more noticeable, albeit marginally significant, influence on sustainability disclosure compared to firm size, which shows no significant effect. The moderate R^2 and significant F-statistic underscore the model's explanatory power, though additional factors likely contribute to disclosure variations.

4.2 Interpretation of Results

The findings partially support the research objectives, which aimed to examine the influence of firm size and profitability on sustainability report disclosure in Indonesian technology firms from 2022 to 2024. The insignificant effect of firm size ($\beta = 0.017$, $p = 0.139$) contradicts

legitimacy theory (Suchman, 1995), which suggests larger firms disclose more due to greater stakeholder scrutiny (Khan et al., 2021). The technology sector's reliance on intangible assets, such as intellectual property, may reduce the need for extensive environmental or social disclosures, diminishing the role of firm size (Fitriani et al., 2021). The wide range in firm size (23.52 to 31.72) indicates diverse operations, yet regulatory mandates like POJK No. 51/POJK.03/2017 may standardize disclosure requirements across sizes (Hadi & Purwanto, 2020).

The marginally significant positive effect of profitability ($\beta = 0.052$, $p = 0.086$) aligns with the second objective, supporting signaling theory (Spence, 1973) and studies like Rahayu and Septiani (2020) and Utami et al. (2019), which link higher profitability to increased disclosure to enhance reputation. The 5.2% increase in GRI Index per 1% ROA increase suggests profitable firms prioritize transparency, though the negative mean ROA (-0.296%) indicates financial challenges limiting disclosure for some firms. This contrasts with Zhang et al. (2023), who found profitability insignificant in Asian technology firms, possibly due to regional differences.

The R^2 of 0.430 suggests that 43% of disclosure variation is explained, implying other factors like governance or stakeholder pressure play a role (Ahmed & Saleem, 2022; Purnomo et al., 2024). The GRI Index range (20%–60%) highlights inconsistent compliance, with higher-disclosing firms likely prioritizing stakeholder engagement. The findings suggest technology firms leverage profitability to enhance disclosure and urge regulators to address low compliance (e.g., 20% GRI Index) through targeted guidelines. The small sample (n=15) limits generalizability, warranting broader future research.

5. Discussion

This section interprets the findings from the study on the influence of firm size and profitability on sustainability report disclosure among Indonesian technology firms from 2022 to 2024, using the Global Reporting Initiative (GRI) 2021 Standards. The results, based on 15 observations from five firms, indicate that firm size has an insignificant effect ($\beta = 0.017$, $p = 0.139$), while profitability shows a marginally significant positive effect ($\beta = 0.052$, $p = 0.086$) on disclosure. These findings are contextualized within the broader literature, compared with prior studies, and analyzed for their implications in Indonesia's technology sector, a key driver of the digital economy. The discussion also addresses the study's limitations and proposes directions for future research to enhance understanding of sustainability disclosure practices.

5.1 Comparison with Prior Research

The insignificant effect of firm size on sustainability disclosure aligns with Fitriani et al. (2021) and Hadi and Purwanto (2020), who found no significant relationship between firm size and disclosure in Indonesian technology firms. This suggests that the technology sector's unique characteristics, such as reliance on intangible assets like intellectual property and digital infrastructure, may reduce the disclosure pressures typically faced by larger firms in traditional industries (Hahn & Kühnen, 2013). In contrast, Khan et al. (2021) reported a strong positive effect of firm size on disclosure in emerging economies, attributing it to greater stakeholder

scrutiny and resource availability. The divergence may stem from the technology sector's digital focus, where uniform regulatory mandates like POJK No. 51/POJK.03/2017 apply across firm sizes, diminishing size-related differences in disclosure (Suchman, 1995).

The marginally significant positive effect of profitability (ROA) supports Rahayu and Septiani (2020) and Utami et al. (2019), who found that profitable Indonesian firms disclose more to signal financial strength and social responsibility, consistent with signaling theory (Spence, 1973) and legitimacy theory (Deegan, 2002). The weak significance ($p = 0.086$) and negative mean ROA (-0.296%) reflect financial volatility in the technology sector, where losses limit disclosure resources for some firms. This partially aligns with Lee and Jung (2022), who noted a positive profitability-ESG disclosure link in global technology firms, but contrasts with Zhang et al. (2023), who found profitability insignificant in Asian technology firms, possibly due to regional stakeholder differences. The study's R^2 of 0.430, explaining 43% of disclosure variation, suggests other factors like governance or ownership structure, as noted by Ahmed and Saleem (2022), may also influence disclosure, aligning with Purnomo et al. (2024).

5.2 Limitations

The study faces several limitations that may affect its findings. First, the small sample size (n=15) from five technology firms limits generalizability to the broader Indonesian technology sector or other industries. This constraint arose from purposive sampling, which prioritized firms with complete 2022–2024 sustainability reports, potentially excluding firms with partial data that could provide additional insights (Ghozali, 2018). Second, the focus on 2022–2024 data captures recent trends but may not reflect long-term disclosure patterns, particularly as sustainability reporting evolves post-pandemic. Third, reliance on secondary data and the GRI Index may overlook qualitative aspects of disclosure, such as narrative depth or stakeholder engagement, which could enrich the analysis (Gray et al., 2014). Finally, the study excludes other potential variables, such as corporate governance, institutional ownership, or stakeholder pressure, which prior studies (e.g., Clarkson et al., 2008; Ahmed & Saleem, 2022) suggest influence disclosure, potentially limiting the model's explanatory power ($R^2 = 0.430$).

5.3 Future Research

Future research should address these limitations to deepen understanding of sustainability disclosure. First, expanding the sample size to include more technology firms, potentially from other subsectors or unlisted companies, would enhance generalizability. Including firms with partial disclosure data could also provide a broader perspective on reporting practices. Second, extending the observation period beyond 2022–2024 would capture long-term trends, particularly as regulatory frameworks like POJK No. 51/POJK.03/2017 mature. Third, incorporating qualitative methods, such as content analysis of sustainability report narratives or interviews with corporate managers, could complement the GRI Index by exploring the motivations and challenges behind disclosure (Hahn & Kühnen, 2013). Finally, future studies should examine additional variables, such as board diversity, institutional ownership, or stakeholder engagement, which may interact with firm size and profitability to drive disclosure (Purnomo et al., 2024; Freeman, 1984). Cross-sector comparisons or regional analyses could

further clarify whether the technology sector's unique dynamics, observed in this study, differ from other industries or Asian contexts.

6. Conclusion

This study investigates the influence of firm size and profitability on sustainability report disclosure among Indonesian technology firms listed on the Indonesia Stock Exchange (BEI) from 2022 to 2024, using the Global Reporting Initiative (GRI) 2021 Standards. The research addresses the problem of inconsistent disclosure practices in the technology sector, a key driver of Indonesia's digital economy, despite regulatory mandates like POJK No. 51/POJK.03/2017. Employing a quantitative causal-comparative design, the study analyzed 15 observations from five firms in the diversified digital and investment subsector through multiple linear regression. Key findings indicate that firm size, measured by the natural logarithm of total assets, has a positive but statistically insignificant effect ($\beta = 0.017$, $p = 0.139$), suggesting that larger firms do not necessarily disclose more. Profitability, measured by Return on Assets (ROA), shows a marginally significant positive effect ($\beta = 0.052$, $p = 0.086$), indicating that more profitable firms tend to enhance disclosure to signal financial strength and social responsibility. The model explains 43% of disclosure variation ($R^2 = 0.430$), highlighting the role of other factors like governance. This study contributes to the literature by providing empirical evidence on the technology sector's disclosure practices, using recent 2022–2024 data and GRI 2021 Standards, offering insights into internal drivers of transparency in a dynamic industry. The findings underscore the need for targeted strategies to improve compliance and align with global sustainability goals.

7. Recommendation

Based on the findings, this study recommends several actions for technology firms, regulators, and future researchers. Technology firms should prioritize enhancing sustainability disclosure by adopting GRI 2021 Standards, particularly leveraging profitability to invest in comprehensive reporting that meets stakeholder expectations and strengthens corporate reputation. The marginal effect of profitability suggests that financially stable firms can lead in transparency, setting benchmarks for the sector. Regulators, such as the Financial Services Authority (OJK), should develop sector-specific guidelines to address low disclosure levels (e.g., 20% GRI Index) and ensure consistent compliance with POJK No. 51/POJK.03/2017, potentially through incentives or stricter enforcement. The insignificant effect of firm size indicates that regulatory frameworks should apply uniformly, regardless of firm scale, to promote equity in reporting obligations. Future researchers should expand the sample size beyond 15 observations and include additional variables like corporate governance or stakeholder pressure to enhance explanatory power beyond the current R^2 of 0.430. Longitudinal studies or cross-sector comparisons could further clarify disclosure dynamics. These recommendations aim to improve transparency in Indonesia's technology sector, contributing to sustainable development and stakeholder trust in a rapidly digitalizing economy.

Appendix

Table A1: Descriptive Statistics

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Ln Total Assets	15	23.52	31.72	26.9560	2.99375
ROA (%)	15	-3.750	0.950	-0.29600	1.124950
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Ln Total Assets	0.017	0.011	1.585	0.139
ROA (%)	0.052	0.028	1.870	0.086

Notes:

- The GRI Index is calculated as the percentage of disclosed items per GRI 2021 Standards.
- Ln Total Assets represents the natural logarithm of total assets in Indonesian Rupiah.
- ROA is calculated as net income divided by total assets, expressed as a percentage.
- Model statistics: $F = 4.517$, $p = 0.034$, $R^2 = 0.430$.

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