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Ownership structures, company size and age, and sustainable development goals are disclosed in the annual report: Is it acceptable to investors? (Survey among publicly listed companies in Indonesia)

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Abstract

The point of this study is to look into how much information about the Sustainable Development Goals (SDGs) that shows how companies support global goals is included in their annual reports. It will also look into whether the type of company and its ownership structure affect how much information about the SDGs is included in financial reports. This study also tested whether SDG disclosures influence firm value. Analyzing companies listed on Indonesian stock exchanges will be the method of conducting this research. This study uses secondary data in the form of disclosure information from annual company reports. The data will be further analyzed using content analysis with a matrix referring to SDG reporting in annual reports. The data were described using descriptive statistics and analyzed using Structural Equation Modelling (SEM) and Path analysis. This research showed that company size and company age positively influence SDG disclosure. The higher the ownership concentration in the company, the better the SDG disclosure, and the SDG disclosure positively influences firm value. This research showed that the level of Sustainable Development Goals (SDGs) disclosure among Indonesian companies is currently limited. This research also discovered that companies with greater complexity tend to provide more comprehensive information about their SDG efforts. It is important to focus on improving SDG disclosure among newer companies with lower ownership concentrations. Lastly, this research also indicates a connection between SDG reporting and company value, but the impact of this connection is relatively minor.

Keywords: Annual report, Company age, Company size, Firm value, Ownership concentration, SDG.

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1. Introduction

Sustainability is a prevailing trend in contemporary private-sector business management. Investors and regulators have notably shifted focus towards both financial and nonfinancial aspects [1]. A critical concern in accounting and financial reporting pertains to disclosing Sustainable Development Goals (SDGs) within Financial Statements [2]. Adhering to sustainable development requisites ranks high on the business community's agenda. The United Nations 2030 Agenda, comprising 17 SDGs, presents fresh challenges as companies strive to align operations and strategies [3]. The SDGs framework, encompassing 17 goals and 169 targets, revolves around people, planet, prosperity, peace, partnership, and nature integration, which are essential for achieving this agenda [4]. SDG reporting, a novel practice for companies, yielded the following findings across countries: (1) 62% of firms mentioned SDGs in their reports; (2) 37% selected priorities from SDGs; (3) 79% prioritized Goal 13: Climate Action; and (4) 28% established quantitative targets linked to social impact [5]. The UN's 17 SDGs function as blueprints for realizing a more sustainable global future, addressing issues ranging from poverty and hunger to climate change and justice [6].

Previous studies have shown that in various countries, including Indonesia, the urgency of the SDGs has not been significantly felt [7]. The disclosure of SDGs in annual company reports is still minimal, and no specific standard requires the disclosure of SDG aspects in annual reports in Indonesia. However, company characteristics and ownership structures are believed to affect disclosure. This study considers company characteristics, such as size and age [8, 9]. Company size is believed to impact disclosure because it reflects the complexity of the company; the more complex the company, the higher the pressure to disclose information [10]. Company age is also believed to impact disclosure because it indicates the experience and maturity of the company's business processes, leading to better reporting infrastructure for non-financial aspects [11]. The ownership structure focuses on ownership concentration. Various studies have shown that high ownership concentration reduces the level of disclosure, but different studies have provided different evidence, making ownership structure still worth investigating [12].

This research was conducted in Indonesia because it is one of the top 20 economies in the world and faces various sustainability issues as well as economic, social, and governance disclosure issues [13]. This exploratory study aims to analyze the extent of SDG disclosure in each company and whether factors influence SDG disclosure in financial reports. Specifically, this study aims to determine whether firm size, firm age, and ownership dispersion affect the extent of SDG disclosure in annual reports. This study also analyzes whether SDG disclosure in an annual report can influence investor decision-making, which is firm value. This study explores whether companies that disclose SDGs more extensively are more extensive. According to the theory of political costs, larger companies also incur higher political costs, and consequently, they need to disclose more information to mitigate these costs [14]. This research also aims to determine whether older companies can disclose more SDG-related items. Older companies generally have more activities than newly established companies. Thus, their annual reports contained more narratives to convey [15].

Furthermore, in line with the corporate life cycle theory, publicly listed companies are typically in the mature stage, resulting in greater disclosure compared to younger companies [16]. This research also investigates whether SDG disclosure in companies is hindered if ownership concentration is centralized among only one owner. Owners who dominate a company excessively tend to have the power to choose the information to be disclosed, mainly covering information that may harm the company's reputation [9, 11]. Investor demand is said to play a part in current Environment, Social, and Governance (ESG) reporting, which includes SDG. However, a previous study found that ESG disclosure still has little to no effect on firm value [17].

The article delves into the research gap concerning Sustainable Development Goals (SDGs) disclosure in Indonesian companies. While the prominence of sustainability in private sector management has surged, SDGs' integration into financial reporting remains a concern. The United Nations' 2030 Agenda and its 17 SDGs pose challenges to businesses aligning strategies [3], yet SDG disclosure in company reports is limited. This study aims to fill this gap by investigating factors influencing SDG disclosure, including firm size, age, and ownership structure. It also explores whether extensive SDG disclosure impacts firm value. The research contemplates the impact of centralized ownership concentration on SDG reporting and assesses the influence of ESG disclosure on firm value. This exploration contributes to the novel field of SDG-based corporate reporting, especially in developing countries like Indonesia, providing insights into SDG disclosure patterns and underlying company characteristics.

It is anticipated that this study will help shape corporate reporting procedures that are SDG-based. Corporate reporting based on the SDGs is still a relatively new practice in developing nations like Indonesia. This study will examine the characteristics of companies with weak or strong SDG disclosure and will give a preliminary assessment of the SDG disclosure landscape in Indonesia. There are five sections to this study, the first of which discusses the motivation for and problems with the research; the second of which reviews the literature and the conceptual framework; the third of which describes the research method and design; the fourth of which presents and discusses the findings; and the fifth of which offers theoretical and practical recommendations.

2. Literature Review

2.1. Sustainable Development Goals (SDG)

Sustainable Development Goals (SDGs) is a programme for sustainable development that was introduced by the United Nations (UN). A nation must achieve the 17 SDG targets in order to create sustainability across a variety of domains [18]. Sustainability is important in many areas because it allows people to live wealthy lives in the future and ultimately raises their standards of living. As accounting professions, accountants have a more direct impact on at least eight of the 17 SDG categories. The eight areas are quality education, gender equality, decent work and economic growth, industry, innovation and infrastructure, responsible consumption and production, climate action, peace, justice, strong institutions, and collaboration for the goals [2].

The company's implementation activities are summarized in the yearly Sustainable Development Goals report, which also identifies areas for improvement and calls for additional action [19]. Transparency has quickly emerged as a new corporate model. Target 12.6 is based on transparency and encourages businesses, particularly big, global ones, to adopt sustainable practices and include sustainable data in their reporting cycles [2]. Through improved reporting, organizations can better comprehend, convey, and manage their contributions to the Sustainable Development Goals.

Key elements for incorporating SDGs into corporate reporting include [20, 21].

1. Analyzing the goals and targets.
2. Integrating the Sustainable Development Goals into corporate reporting.
3. Mapping the Sustainable Development Goals with Global Reporting Initiative (GRI) Standards.
4. Focusing on addressing investors' needs in business reporting on the Sustainable Development Goals.

Many organizations, including the Global Reporting Initiative (GRI) and the Value Reporting Foundation (VRF), have incorporated the SDG framework into their sustainability reporting guidelines. Through the adoption of this framework, companies can achieve the following objectives [22, 23]:

1. Play a part in attaining the Sustainable Development Goals by employing integrated thinking.
2. Utilize integrated reporting to convey their company's efforts towards the Sustainable Development Goals and demonstrate how they address sustainable development risks and opportunities.

The Value Reporting Foundation (VRF) outlines various measures for incorporating Sustainable Development Goal reporting into Integrated Reporting. These actions encompass the following steps [24, 25]:

1. Incorporating Sustainable Development Goals into the core thought process, strategy development, decision-making, and reporting.
2. Fostering integrated thinking that acknowledges the risks and opportunities stemming from sustainable development factors.
3. Identifying solutions aligned with sustainable development and optimizing the creation of value across diverse capital forms while safeguarding essential resources for global sustainable development.
4. Conveying the significance of sustainable development in relation to the organization's value creation and its contributions to sustainable development outcomes.
5. Addressing the intricacies presented by challenges related to sustainable development.
6. Informing and challenging institutional practices, government frameworks, education, and business.

Additionally, steps to align Sustainable Development Goals with the value creation process encompass the following measures [24, 26]:

1. Understanding the sustainable development issues pertinent to the organization's external context.
2. Identifying sustainable development issues that have an impact on value creation.
3. Formulating strategies to support the Sustainable Development Goals through the business model.
4. Cultivating integrated thinking, connectivity, and governance.
5. Preparing integrated reports.

2.2. Company Size

Various studies that discuss the extent or quality of disclosure include company-characteristic variables [8]. It cannot be denied that certain companies disclose more information in their financial reports, whereas others disclose less. Legitimacy theory explains that companies with specific characteristics are more likely to survive, whereas others may struggle [27]. One criterion for a company's ability to survive is its adaptability to stakeholders' desires and expectations. The interests and expectations of stakeholders also change with various economic and business developments, the natural environment, sociopolitical factors, and culture [28].

A company reflects various business perspectives. Researchers often use company size to depict a company's capabilities. A large company has greater management responsibility [29]. Large companies generally have more significant resources and capabilities to disclose information than small companies [10]. Large companies also tend to have a greater responsibility to disclose information due to investors' expectations of them [30].

The theory of political costs, which is part of positive accounting theory, states that large companies bear significant political costs [31]. The political costs for large companies involve the scrutiny of their reputation and corporate image by national and international stakeholders [32]. Even minor mistakes or shortcomings can lead to the downfall of large companies. Large companies strive to reduce these political costs by disclosing more information [33]. Currently, SDGs have gained the attention of national and international investors, making it crucial for companies to demonstrate their commitment to them by explaining various actions taken to support the implementation of SDG activities [34].

2.3. Company Age

Company age is another characteristic frequently used as an indicator in research on information disclosure. Companies are established for an indefinite period, assuming that they exist indefinitely [35]. Companies have goals related to sustainability and provide value to stakeholders throughout their lifespans. According to the concept of value creation, the longer a company exists, the more expected value creation occurs [36]. In this concept, value erosion, or stagnation, is also possible. However, in line with economic and business principles, value creation aligns with the vision and mission of a company [37].

A company's age reflects its business experience [29]. Companies that have been established for a long time generally have various business processes, some of which may have evolved rapidly and require further explanation [38]. Older companies typically have more experience and a greater number of investors. Experience and a more significant number of investors lead to better disclosure than younger companies. This is because a more significant number of investors demand more information because of the diverse origins of investors or users of a report [39].

The age of a company determines the extent of SDG disclosure in annual reports. Research has shown that a long company lifespan proves that value creation has been successfully achieved [40]. In legitimacy theory, value creation is one of the reasons a company presents to stakeholders as justification for its continued existence in the business environment [41]. Therefore, companies with longer lifespans are more likely to communicate their value-creation processes to maintain legitimacy [42].

2.4. Ownership Concentration

The company characteristic examined in this study is its ownership structure. Ownership by various owners generally leads to different styles of ownership. Ownership can be viewed from various perspectives, including individual and institutional [43]. Ownership can also be seen from domestic or foreign perspectives, as well as managerial or corporate ownership perspectives [44]. Each type of ownership relates to two aspects: control and supervision. Each owner has their own style, with some owners closely monitoring the company while others have a more hands-off approach [45].

The extent of majority shareholder ownership can affect ownership structure in addition to ownership type. Majority shareholders can disproportionately benefit from expropriation if they design a profit-sharing system that transfers wealth to minority shareholders [46]. Companies have diverse ownership structures. Companies with limited shareholder ownership generally disclose only limited information. This is because demand for information is limited. If ownership is dispersed, there is usually greater demand for diverse types of information, resulting in broader disclosure in companies with more dispersed shareholder ownership [30].

Centralized ownership is likely to reduce the extent of information disclosure. Centralized ownership entails firm control [47]. Noncontrolling shareholders in such positions do not have substantial protective rights, including the right to access information. Centrally controlled shareholders also have low social responsibility, as fewer shareholders provide information [48]. In several studies on fraud, the likelihood of fraud by owners is even higher in positions of centralized ownership [49]. The disclosed information is also likely to be selectively chosen and less transparent than the dispersed ownership. However, one theory also states that centralized ownership can lead to more greenwashing practices by companies [50]. This is because companies with centralized ownership have more freedom to create a positive image of their economic, social, and environmental performance through disclosure in their annual reports [51].

2.5. Firm Value

The primary goal when establishing a company is to enhance its worth and promote its growth. The growth of a company becomes evident when external entities appraise its assets and observe an increase in its stock market value [16]. A company's value is the price investors would ideally be willing to pay if the company were to be sold. This value becomes apparent in the form of stock prices. When stock prices rise, it signifies higher returns for investors, indicating an increased worth of the company, aligning with its core objective of maximizing shareholder wealth [52].

Price-to-book value (PBV) serves as a metric for assessing a company. PBV quantifies how much the market values a company's stock in relation to its book value. It's essentially a comparison between stock price and book value, revealing a company's ability to generate value relative to the capital invested. Consequently, a higher PBV ratio suggests a more successful creation of value for shareholders [53].

PBV is intimately linked to stock prices, with changes in stock prices influencing the PBV ratio. A higher PBV ratio is indicative of elevated stock prices, reflecting a higher company value. Conversely, a lower PBV value corresponds to lower stock prices, signifying a diminished company's worth [54]. Consistently high stock prices are a positive sign for a company's growth prospects. In essence, this ratio measures the value that the financial market places on the company's management and organizational capabilities as a growing entity [16].

2.6. Theoretical Framework and Hypotheses Development

According to social contract theory, a company's purpose is not only to contribute to shareholders in the form of profit but also to provide benefits to society at large [55]. This concept was further developed by adding that companies should also balance their efforts with the environment, which became known as triple bottom-line accounting and reporting, balancing the company's economic, social, and environmental aspects [56]. Stakeholder and legitimacy theories provide a basis for companies to report financial aspects to shareholders and non-financial aspects to a broader range of stakeholders [57].

In the past, corporate reporting was financially oriented and historical, providing information for accountability and stewardship purposes [58]. Stakeholders' current needs include historical, current, and future-oriented information [17]. The desired information is integrative, covering all aspects of the company's business, not just financial but also non-financial, and not just performance-related, but also how the company manages its business, risks, opportunities, and creates value [10].

The formulation of reporting with SDG aspects differs for each company. Each company had different characteristics and cultures [6]. Different company characteristics lead to varying levels of information disclosure. Extensive disclosure provides better information for users to make better decisions. Reporting with SDG aspects can provide more integrative information about a company, covering various multidimensional aspects, thus providing a realistic picture of the company's value in the eyes of stakeholders [22].

Based on the above framework, the following hypotheses can be formulated:

H_1: Company size positively influences the extent of SDG disclosure in annual reports.

H_2: Company age positively influences the extent of SDG disclosure in annual reports.

H_3: Ownership dispersion influences the extent of SDG disclosure in annual reports.

H_4: The extent of the SDG disclosure positively influences the firm value.

3. Methods

The research was carried out employing a quantitative explanatory method. In this context, the quantitative explanatory approach doesn't just intend to depict the extent of SDG disclosure; it also seeks to investigate factors associated with SDG disclosure, specifically company attributes and ownership distribution. The specifics of how the variables were defined and measured in this study can be found in Table 1.

Table 1.
Variable operationalization.

Variable	Indicators
Company size (X_1)	The natural logarithm (Ln) of the company's total assets
Government age (X_2)	Year of study: Year of establishment of the company
Ownership concentration (X_3)	% of shares owned by controlling shareholders.
SDG disclosure (Y)	SDG disclosure was determined by analyzing the annual report to see whether the annual report disclosed or did not disclose the 17 SDG indicators. The complete list of SDG indicators will be presented in Appendix 1. The following factors will determine the disclosure index: $\frac{\text{Total number of SDG item disclosure made}}{\text{Total number of SDG items (17)}}$ For the number of SDG items, If the annual report discloses the information, it will give it a score of 1. If the annual report did not disclose the information, it would give a score of 0 The maximum score of each annual report is, therefore, 17 items (100%)
Firm value (Z)	Price to book value Price per share / Book value per share Price per share used is a 5-day average share price since the date of issuing the respective years' financial statements. Book per share used the data provided in the annual financial statement.

The study's population encompasses 566 companies that are publicly listed on stock exchanges in Indonesia. Data will be collected from all of these companies, utilizing a comprehensive sampling technique. Information will be gathered by conducting a review of the literature using annual reports spanning from 2016 to 2018. These specific years were chosen because the Sustainable Development Goals (SDGs) were introduced in 2015. The year 2015 was excluded from the study since it represented an early phase of SDG implementation. Likewise, data from the years 2019 to the present were not included due to the exceptional circumstances of the COVID-19 pandemic, which led to atypical data patterns, as nearly all companies disclosed similar SDG-related impacts of COVID-19 on their SDG progress. The data analysis was conducted quantitatively and involved the following statistical techniques:

1. Descriptive statistics, including measures like mean, standard deviation, maximum, and minimum, were used to assess the central tendencies of the data. A more detailed descriptive analysis was performed to primarily depict the characteristics of SDG disclosure. This included industry-specific descriptions based on the nine industry sectors listed on the Indonesia Stock Exchange: (1) agriculture, (2) mining, (3) Miscellaneous Industries, (4) Basic Industries, (5) infrastructure, (6) Consumer Goods, (7) financial, (8) property, and (9) Services and Trade. An analysis of variance (ANOVA) was conducted to compare the levels of SDG disclosure between these industries.
2. A Structural Equation Model (SEM) path analysis was employed to test the research hypotheses. The testing process encompassed five stages using the SEM model, as outlined in references [59, 60]. These stages included:
    a. Model specifications: This phase involved constructing the initial structural equation model before estimation. The initial model was developed based on existing theory and prior research. Figure 1 describes the model:

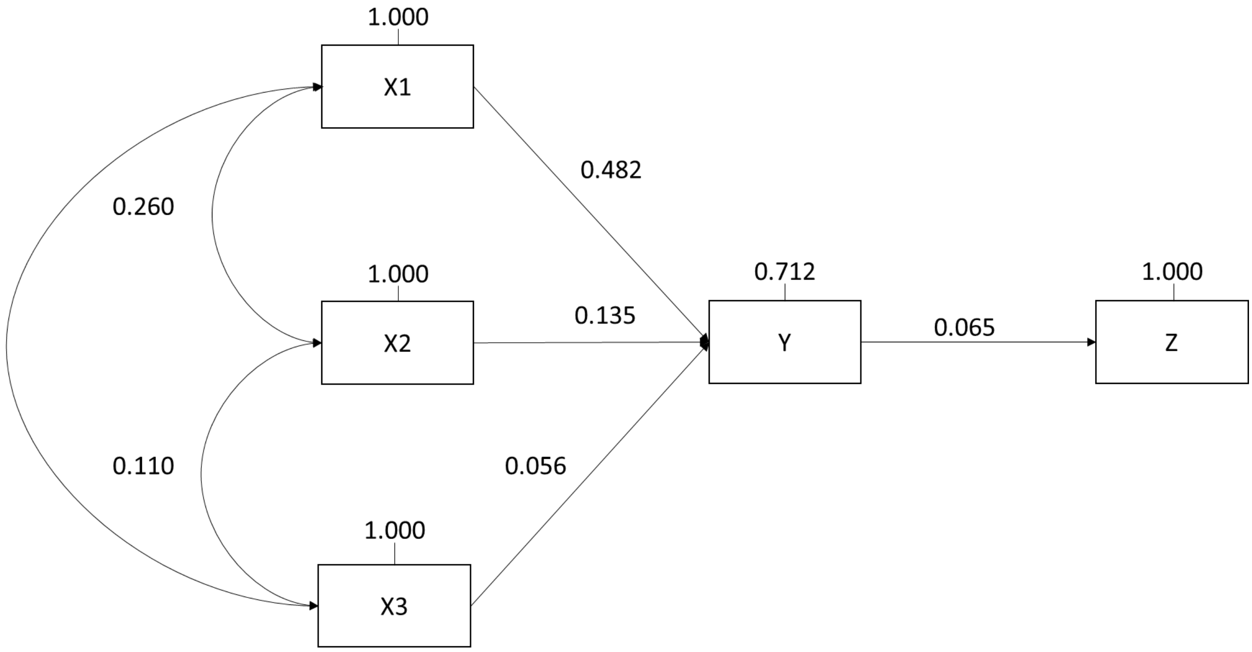

Figure 1.
Conceptual path model.

b. Identification of the model is related to the possible assessment of obtaining a unique value for each parameter in the model and the possible simultaneous equations with no solution. The model is said to be overidentified because it has three degrees of freedom (Criteria> 1).
c. Model estimation involves estimating a model to produce parameter values using one of the available estimation methods. The weighted least-squares estimation model was used because the multivariate normality assumption was not met [60].
d. Model testing is the evaluation of the model's compatibility with the data (goodness-of-fit test) and the testing of the significance of the data against the research model. There were three tests: absolute, incremental, and parsimony fit measures.
e. Model modification is a model re-specification based on the results of the compatibility of the previous stage model.

Previous research on SDG disclosure has generally focused on partial testing related to factors influencing SDG disclosure and how SDG disclosure affects company value. The Structural Equation Model (SEM)-Path in this study provides a comprehensive overview of the causal relationships between variables that have not been previously explored. This research also covers the entire industry sector listed on the Indonesia Stock Exchange, whereas previous studies only examined specific sectors. It is hoped that by including all sectors, the research will achieve greater generalizability.

4. Results and Discussions

4.1. Result

4.1.1. Descriptive Statistics

From the 566 companies that were part of the research population, only data from 435 companies could be retrieved. One hundred thirty-one companies were inaccessible due to outliers, negative Price-to-Book Value (PBV) data, and unavailable annual reports.

Table 2 presents the descriptive statistics for the 435 companies. Table 3 and 4 provide more detailed information on company age and ownership concentration variables. A more detailed description of the variable Y is presented in the following subsection. Based on the data available in this study, it can be observed that the size of companies varies significantly, with a natural logarithm range of total assets equal to 17. This result indicates that companies listed on the Indonesian stock exchange have diverse levels of complexity. The policies of the Indonesian stock exchange authority, which have facilitated deregulation and ease of entry for companies in the Indonesian stock market, support this result [61].

Table 2.
Descriptive statistics.

Variable	Mean	Std. dev.	Min.	Max.
X1	19.367	1.845	8.470	25.220
X2	34.301	19.912	2.000	201.000
X3	0.524	0.212	0.070	1.000
Y	0.388	0.234	0.000	0.940
Z	1.502	1.368	0.010	9.610

Regarding the company's value, the average PBV value obtained is 1.502, where a PBV value above 1.00 indicates high attractiveness to investors. However, it should be noted that the standard deviation, which is close to the average, indicates a relatively high dispersion of PBV among the companies. There are also companies with a PBV of 0.01 or close to zero.

The average age of the companies is 34 years. However, the distribution of company ages varies significantly, ranging from 2 to 201 years. However, Table 3 shows that 80% of companies generally have relatively young ages, in the range of their 40s. This result indicates that companies in Indonesia are still in the growth phase or are moving towards maturity. Although the industries analyzed in this research are diverse, the overall life cycle of companies shows that those in the 30-to-40-year age range still have good business potential for the long term, and they have successfully passed the introduction phase [62].

Table 3.
Age of companies.

Age interval	Frequency	Percent	Cumulative percent
2 – 23	359	27.510	27.510
24 – 45	697	53.410	80.920
46 – 67	211	16.169	97.088
68 – 89	14	1.073	98.161
90 – 111	12	0.920	99.080
112 – 133	3	0.230	99.310
156 – 177	6	0.460	99.770
178 – 201	3	0.230	100.000

Regarding ownership concentration, Table 1 shows that the average ownership percentage of ultimate company owners is 54%, indicating a majority ownership. Majority ownership indicates a high concentration of ownership. Table 4 also indicates that very little ultimate shareholder ownership is below 20%. Many companies listed on the Indonesian stock exchange are part of corporate groups where the parent company's ownership of subsidiary companies is very high, ranging from 80% to 100% [63].

Table 4.
Ultimate ownership percentage.

Ultimate ownership percentage	Frequency	Percent
< 20%	84	6.400
20% - 50%	508	39.000
>50%	713	54.600
Details for >50% ultimate ownership percentage		
50 – 59%	241	18.500
60 – 69%	165	12.600
70 – 79%	145	11.100
80 – 89%	106	8.100
90 – 100%	56	4.300

4.1.2. ANOVA Test

The SDG disclosure variable indicates that the average extent of disclosure related to the (SDGs) is 38.88%. This result means that out of approximately 17 SDG indicators, companies disclose only 7 to 8 items related to the SDGs. Based on the data in Table 5, it can be observed that there are 11 disclosure items within the SDGs that are still below 50%. Even components such as SDG 14 and 16 had values below 10%. SDG 3 has the highest disclosure percentage at 80%, and SDG 4 is second with a value of 63%. This finding suggests that social welfare themes—specifically, social well-being (SDG 3) and education (SDG 4—dominate SDG disclosure in Indonesia, whereas environmental themes have not received as much attention.

Table 5.
SDG component disclosure rate.

SDG component	Average
1	57.760%
2	56.926%
3	80.777%
4	63.059%
5	16.050%
6	23.315%
7	33.761%
8	38.678%
9	46.176%
10	58.141%

SDG component	Average
11	14.456%
12	41.936%
13	47.459%
14	7.495%
15	33.455%
16	9.841%
17	22.937%

The overall descriptive statistics for SDG disclosure across industries demonstrate that the mining industry, infrastructure, and consumer goods companies all have the highest levels of disclosure. The lowest level of disclosure was observed in the agricultural sector. This result is surprising, as agricultural companies are generally extractive sector companies with high exposure to ESG disclosure, similar to mining companies. However, this result seems to be a consequence of the relatively low regulations governing the agricultural sector, where sustainability-based agricultural practices were not widely implemented in Indonesia at the time of the research [64]. Meanwhile, ESG regulations in the Indonesian mining sector were already well-developed at the time of the research [65]. The ANOVA results indicate a significant difference in disclosure among industry sectors. Table 6 presents the results.

Table 6.
ANOVA test for SDG disclosure across industry.

Industry sector	Mean	Std. dev.	Min.	Max.
Agriculture	0.333	0.258	0.000	0.772
Mining	0.528	0.239	0.060	0.821
Misc. industries	0.384	0.229	0.000	0.883
Basic industries	0.383	0.154	0.000	0.591
Infrastructure	0.456	0.228	0.060	0.944
Consumer goods	0.426	0.211	0.000	0.944
Financial	0.364	0.245	0.000	0.944
Property	0.352	0.240	0.000	0.883
Service and trade	0.360	0.237	0.000	0.944
Welch's Robust test for equality of means*				
Statistics	6.682			
Sig.	0.000**			

Note: *: ANOVA, test if there is an issue of normality in the samples.
**: Significant at α = 5%.

4.1.3. Hypothesis Testing

Hypothesis testing was conducted using the SEM Path. The results of the multivariate normality assumption test indicated that this assumption was not satisfied. Therefore, the estimation in this research used the weighted least squares (WLS) approach, which is suitable for large-sized observation units (more than 1,000 samples) and is robust against data non-normality. The number of observation units in this research was 1,305, satisfying the assumption of using WLS [60].

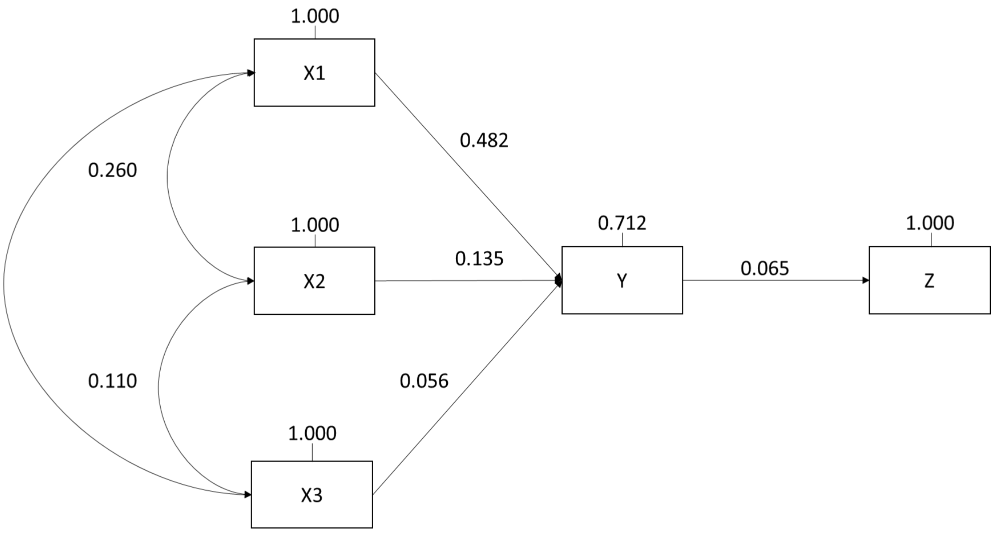

Figure 2.
Results in path diagram.

A research path diagram is provided in Figure 2, and an explanation of the path coefficients and hypothesis tests is presented in Table 7. The hypothesis testing results through the t-test show t-values above 1.96, indicating the rejection of the null hypothesis (Ho); thus, hypotheses 1 to 4 are accepted. The determination coefficient (R-squared) for the X variables to Y was reasonably good at 29%, but the determination coefficient for the Y variable to Z was close to 0%, although the model was still statistically significant. This result indicates that SDG disclosure has a relatively weak impact on firm value. The SEM model was deemed appropriate after performing absolute, incremental, and parsimony fit tests. Further details are presented in Table 8.

Table 7.
SEM-path results.

Path coefficient	Standardised coefficient score	R^2 model	Coefficient sign-in hypothesis	T-value	Conclusion
P_{YX1}	0.482	0.291	+	19.5	H1 accepted
P_{YX2}	0.135		+	6.57	H2 accepted
P_{YX3}	0.056		?	2.04	H3 accepted
P_{ZY}	0.065	0.001	+	2.21	H4 accepted

Table 8.
SEM goodness of fit test.

The goodness of fit test	Score	Good-fit criterion
Absolute fit measures		
Chi-square	7.46 (P value=0.059)	(P-value > 0.05)
Root mean square error of approximation (RMSEA)	0.034	<0.05
Goodness of fit index (GFI)	1	> 0.90
Incremental fit measures		
Adjusted goodness of fit index (AGFI)	0.999	> 0.80
Tucker Lewis index (TLI)	0.961	> 0.80
Comparative fit index (CFI)	0.999	> 0.80
Relative fit index (RFI)	0.932	> 0.80
Parsimonious fit measures		
Akaike information criterion (AIC)	31.461	Positive and small
Consistent Akaike information criterion (AIC)	105.554	Positive and small
Critical N	1984.412	>200

4.2. Discussions

There are several interesting points to note based on the findings of this study. First, the study shows that companies' disclosure of Sustainable Development Goals (SDGs) is still suboptimal. The highest level of SDG disclosure by companies is related to the health and well-being of the community, as well as quality education, which are components of SDGs 3 and 4. These results indicate that the focus of SDG disclosure by companies is still on various activities demonstrating corporate social responsibility in providing social assistance, health, and education to the community [66]. Such forms represent a form of social responsibility activity far from the meaning of sustainability. These results imply that companies must still be educated on social responsibility and sustainability [67]. Low levels of disclosure in areas such as life below water, peace, and justice also indicate that many companies do not understand the types of corporate activities that support these two SDGs. One reason for the low disclosure regarding SDG 14 is that not all industries are concerned about marine life because not all business processes involve the maritime sector [55]. Although not all industries have a maritime concept, life below water can also be related to the management of waste dumped into rivers or oceans and efforts to preserve the water sources used by the company. The lack of disclosure of justice and peace is because many companies argue that these tasks are the responsibility of government institutions [68].

Nevertheless, companies should be able to disclose SDG 16 components in terms of corruption-free and integrity-based workforce management, consumer protection against hazardous products, and services to consumers in need of assistance [69]. The results of the industry comparison also show that although the mining sector has the highest score, the average score still reaches only 50%. All industries must know the importance of reporting the SDGs in their annual reports.

Second, larger companies will increase their disclosure of SDGs. This outcome is consistent with the company's literature review. The size of companies listed on the stock exchange is not always homogeneous or classified as large. Startups, micro, small, and medium-sized enterprises (MSMEs), and companies with negative financial performance are still listed on the stock exchange [17]. These two types of companies are generally relatively small. MSMEs have a lower stakeholder base, making it easier for them to legitimize actions taken based on environmental and social aspects [70]. Meanwhile, companies with negative financial performance prioritize improving their financial performance before focusing on non-financial performance, such as the SDGs [71]. Investors in developing countries, such as Indonesia, still focus largely on financial performance, which motivates companies to focus more on reducing financial losses and pay less attention to SDG-related disclosure [72].

Third, older companies will result in increased disclosure of SDGs. The theory presented in this literature review explains why this can occur. Companies listed on Indonesia's stock exchange are generally established, and in 2017, the Financial Services Authority introduced regulations on sustainable finance and the obligation to prepare sustainability reports [73]. However, young companies face difficulties in disclosing SDGs because (1) SDGs are still confusing to implement in new companies, and (2) SDGs require understanding and commitment to implementation [2, 74]. Companies in the introductory stage will focus more on preparing financial reporting infrastructure before considering other reporting infrastructures [75].

Fourth, high ownership concentration increases SDG disclosure. This result contradicts the theory that high ownership concentration can reduce SDG disclosure due to tendencies towards green washing and other information manipulation. However, a study in Indonesia showed the opposite trend. Many companies in Indonesia belong to groups or conglomerates. Indonesia has many multi-business companies, and even parents and subsidiaries may have very different businesses [76]. Group companies generally face challenges when consolidating parent and subsidiary SDG reports because of potential differences in their industries [77]. However, as a consequence, many parents strive to explain all SDG aspects carried out by the parent and subsidiary companies, resulting in high disclosure in consolidated annual reports [78].

Finally, SDG disclosure can increase a company's value, although its impact is minimal. The implication is that this study proves that SDG reports are used for decision-making. Regarding the low determination of Model 2, this can be understood because the research period from 2016 to 2018 was the early phase of SDG introduction, and there were no mandatory provisions related to SDGs in annual reports or sustainability reports [79]. In 2018, there was an improvement in the total disclosure score; however, as mentioned earlier, the average disclosure rate was still around 30% to 40%. Many Indonesian investors do not yet understand issues related to ESG or sustainability; therefore, this result implies the need for financial literacy and reporting for investors, especially ESG and sustainability reporting [80]. In the future, investor decision-making can also be based on the sustainability performance conveyed in sustainability reports [73].

5. Conclusion

This study yielded several interesting conclusions. The disclosure of Sustainable Development Goals (SDGs) by companies in Indonesia remains low. Therefore, efforts are required to improve it. Various sustainability reporting frameworks have integrated SDG-related information into sustainability reporting. Stock exchange authorities should consider adopting and promoting these frameworks for listed companies. The research also found that more complex companies are more likely to disclose SDG information. Efforts must be made to enhance the SDG disclosure of young companies with low ownership concentrations. Currently, many universities have research centers or learning centers on SDGs that can collaborate to develop matrices and SDG disclosure targets for companies and provide the necessary understanding and infrastructure for SDG reporting [7].

The research also demonstrates that, although there is an influence between SDG reporting and company value, the magnitude of this influence is still very weak. Massive education is required for investors and users of sustainability reports regarding the benefits of sustainability reporting and SDG information. Many studies still indicate that the readers and users of sustainability-related reports are professors and students rather than investors or direct stakeholders with companies [81]. This is something that companies must address. One reason for this is the lack of a single framework for SDG reporting worldwide. This fact can be an impetus for standard-setting institutions to develop frameworks for recognizing, measuring, and disclosing SDG information in financial or corporate reporting [22].

This study offers valuable insights, yet it is important to acknowledge its limitations. The focus on the Indonesian context may restrict the generalizability of findings to other countries or regions with different socio-economic dynamics. This research also doesn't delve into the specific challenges companies may face in implementing such disclosure practices, which could be explored in further research. Further research can examine how SDG disclosure progresses in the years following the implementation of the SDGs, particularly 2030. Subsequent research could also explore the relationship between SDG information disclosure and SDG performance within companies. Additionally, future studies could consider using governance or other variables that may influence the quality of SDG reporting in companies.

References

[1] C. Vallone, "The role and expectations of stakeholders in the new non-financial disclosure regulations. In non-financial disclosure and integrated reporting: Theoretical framework and empirical evidence." Cham: Springer International Publishing, 2022, pp. 383-391.

[2] O. A. Erin, O. A. Bamigboye, and B. Oyewo, "Sustainable development goals (SDG) reporting: An analysis of disclosure," *Journal of Accounting in Emerging Economies,* vol. 12, no. 5, pp. 761-789, 2022. https://doi.org/10.1108/jaee-02-2020-0037

[3] A. Calabrese, R. Costa, M. Gastaldi, N. L. Ghiron, and R. A. V. Montalvan, "Implications for sustainable development goals: A framework to assess company disclosure in sustainability reporting," *Journal of Cleaner Production,* vol. 319, p. 128624, 2021. https://doi.org/10.1016/j.jclepro.2021.128624

[4] P. Pradhan, L. Costa, D. Rybski, W. Lucht, and J. P. Kropp, "A systematic study of sustainable development goal (SDG) interactions," *Earth's Future,* vol. 5, no. 11, pp. 1169-1179, 2017. https://doi.org/10.1002/2017ef000632

[5] G.-M. Emma and M.-F. Jennifer, "Is SDG reporting substantial or symbolic? An examination of controversial and environmentally sensitive industries," *Journal of Cleaner Production,* vol. 298, p. 126781, 2021. https://doi.org/10.1016/j.jclepro.2021.126781

[6] S. Datta and S. Goyal, "Determinants of SDG reporting by businesses: A literature analysis and conceptual model," *Vision: The Journal of Business Perspective,* p. 097226292210960, 2022. https://doi.org/10.1177/09722629221096047

[7] E. Novieastari, H. Pujasari, L. O. Abdul Rahman, A. Ganefianty, and M. P. Rerung, "Knowledge, perception, and awareness about sustainable development goals (SDGs) among students of a public university in Indonesia," *International Journal of Health Promotion and Education,* vol. 60, no. 4, pp. 195-203, 2022. https://doi.org/10.1080/14635240.2022.2066557

[8] K. Alsaeed, "The association between firm-specific characteristics and disclosure: The case of Saudi Arabia," *Managerial Auditing Journal,* vol. 21, no. 5, pp. 476-496, 2006. https://doi.org/10.1108/02686900610667256

[9] J. L. Birt, C. M. Bilson, T. Smith, and R. E. Whaley, "Ownership, competition, and financial disclosure," *Australian Journal of Management,* vol. 31, no. 2, pp. 235-263, 2006. https://doi.org/10.1177/031289620603100204

[10] M. Ettredge, K. Johnstone, M. Stone, and Q. Wang, "The effects of firm size, corporate governance quality, and bad news on disclosure compliance," *Review of Accounting Studies,* vol. 16, no. 4, pp. 866-889, 2011. https://doi.org/10.1007/s11142-011-9153-8

[11] N. Buitendag, G. S. Fortuin, and A. De Laan, "Firm characteristics and excellence in integrated reporting," *South African Journal of Economic and Management Sciences,* vol. 20, no. 1, pp. 1-8, 2017. https://doi.org/10.4102/sajems.v20i1.1307

[12] S. Darmadi, "Ownership concentration, family control, and auditor choice: Evidence from an emerging market," *Asian Review of Accounting,* vol. 24, no. 1, pp. 19-42, 2016. https://doi.org/10.1108/ara-06-2013-0043

[13] A. Pratama, E. Jaenudin, and S. Anas, "Environmental, social, governance-sustainability disclosure using international financial reporting sustainability standards S1 in Southeast Asian companies: A preliminary assessment," *International Journal of Energy Economics and Policy,* vol. 12, no. 6, pp. 456-472, 2022. https://doi.org/10.32479/ijeep.13581

[14] S. Ruiz-Blanco, S. Romero, and B. Fernandez-Feijoo, "Green, blue or black, but washing–What company characteristics determine greenwashing?," *Environment, Development and Sustainability,* vol. 24, no. 3, pp. 4024-4045, 2022. https://doi.org/10.1007/s10668-021-01602-x

[15] K. Andriadi and D. Werastuti, "A comprehensive study on the quality of sustainability reporting disclosure between Indonesia and other countries," *Accounting,* vol. 8, no. 1, pp. 19-26, 2022. https://doi.org/10.5267/j.ac.2021.6.010

[16] L. J. Falah and A. F. Mita, "ESG disclosure and the role of CEO narcissism on firm value: The case of ASEAN-5," *Global Business and Economics Review,* vol. 27, no. 2, pp. 133-148, 2022. https://doi.org/10.1504/gber.2022.10049690

[17] A. Pratama, W. Yadiati, N. D. Tanzil, and J. Suprijadi, "Integrated reporting in Southeast Asia: Does value creation work," *Academic Journal of Interdisciplinary Studies,* vol. 10, no. 5, pp. 57-68, 2021. https://doi.org/10.36941/ajis-2021-0123

[18] United Nations Development Programme, *SDG guidebook*. Bangkok: UNDP, 2022.

[19] F. Rosati and L. G. D. Faria, "Business contribution to the sustainable development agenda: Organizational factors related to early adoption of SDG reporting," *Corporate Social Responsibility and Environmental Management,* vol. 26, no. 3, pp. 588-597, 2019. https://doi.org/10.1002/csr.1705

[20] Á. Szennay, C. Szigeti, N. Kovács, and D. R. Szabó, "Through the blurry looking glass—SDGs in the GRI reports," *Resources,* vol. 8, no. 2, p. 101, 2019. https://doi.org/10.3390/resources8020101

[21] R. Costa, T. Menichini, and G. Salierno, "Do SDGs really matter for business? Using GRI sustainability reporting to answer the question," *European Journal of Sustainable Development,* vol. 11, no. 1, pp. 113-113, 2022. https://doi.org/10.14207/ejsd.2022.v11n1p113

[22] A. Elalfy, O. Weber, and S. Geobey, "The sustainable development goals (SDGs): A rising tide lifts all boats? Global reporting implications in a post SDGs world," *Journal of Applied Accounting Research,* vol. 22, no. 3, pp. 557-575, 2021. https://doi.org/10.1108/jaar-06-2020-0116

[23] M. R. Perello-Marin, R. Rodríguez-Rodríguez, and J.-J. Alfaro-Saiz, "Analysing GRI reports for the disclosure of SDG contribution in European car manufacturers," *Technological Forecasting and Social Change,* vol. 181, p. 121744, 2022. https://doi.org/10.1016/j.techfore.2022.121744

[24] C. Busco, F. Granà, and M. F. Izzo, *Sustainable development goals and integrated reporting*. London: Routledge, 2018.

[25] S. Hamad, F. W. Lai, M. K. Shad, S. F. Khatib, and S. E. A. Ali, "Assessing the implementation of sustainable development goals: Does integrated reporting matter?," *Sustainability Accounting, Management and Policy Journal,* vol. 14, no. 1, pp. 49-74, 2023. https://doi.org/10.1108/sampj-01-2022-0029

[26] C. Adams, *The sustainable development goals, integrated thinking and the integrated report*. London: International Integrated Reporting Council, 2017.

[27] S. Silva, "Corporate contributions to the sustainable development goals: An empirical analysis informed by legitimacy theory," *Journal of Cleaner Production,* vol. 292, p. 125962, 2021. https://doi.org/10.1016/j.jclepro.2021.125962

[28] F. Manes-Rossi and G. Nicolo', "Exploring sustainable development goals reporting practices: From symbolic to substantive approaches—Evidence from the energy sector," *Corporate Social Responsibility and Environmental Management,* vol. 29, no. 5, pp. 1799-1815, 2022. https://doi.org/10.1002/csr.2328

[29] D. Y. Lee, "Corporate social responsibility disclosure among large Korean companies," *Australian Journal of Business and Management Research,* vol. 2, no. 11, pp. 1-14, 2013. https://doi.org/10.52283/nswrca.ajbmr.20120211a01

[30] Z. Wang, M. Jahangir Ali, and M. Al-Akra, "Value relevance of voluntary disclosure and the global financial crisis: Evidence from China," *Managerial Auditing Journal,* vol. 28, no. 5, pp. 444-468, 2013. https://doi.org/10.1108/02686901311327218

[31] M. J. Milne, "Positive accounting theory, political costs and social disclosure analyses: A critical look," *Critical Perspectives on Accounting,* vol. 13, no. 3, pp. 369-395, 2002. https://doi.org/10.1006/cpac.2001.0509

[32] T. Tagesson, V. Blank, P. Broberg, and S. O. Collin, "What explains the extent and content of social and environmental disclosures on corporate websites: a study of social and environmental reporting in Swedish listed corporations," *Corporate Social Responsibility and Environmental Management,* vol. 16, no. 6, pp. 352-364, 2009. https://doi.org/10.1002/csr.194

[33] J. Hasseldine, A. I. Salama, and J. S. Toms, "Quantity versus quality: The impact of environmental disclosures on the reputations of UK Plcs," *The British Accounting Review,* vol. 37, no. 2, pp. 231-248, 2005. https://doi.org/10.1016/j.bar.2004.10.003

[34] W. Lin, "Corporate non-financial reporting in the UK: Diversions from the EU sustainability reporting framework," *Sustainability,* vol. 14, no. 15, p. 9134, 2022. https://doi.org/10.3390/su14159134

[35] R. Lombardi, *Going-concern-principle in non-financial disclosure*. New York: Springer, 2021.

[36] J. Guthrie, F. Manes-Rossi, and R. L. Orelli, "Integrated reporting and integrated thinking in Italian public sector organisations," *Meditari Accountancy Research,* vol. 25, no. 4, pp. 553-573, 2017. https://doi.org/10.1108/medar-06-2017-0155

[37] F. Granà, "Practicing integrated thinking: Towards a new era of corporate management accounting and reporting. In: Sustainable Development Goals and Integrated Reporting." London: Routledge, 2018, p. 28.

[38] W. Mendes-Da-Silva and L. M. Onusic, "Corporate e-disclosure determinants: Evidence from the Brazilian market," *International Journal of Disclosure and Governance,* vol. 11, no. 1, pp. 54-73, 2014. https://doi.org/10.1057/jdg.2012.14

[39] C. Deegan and J. Unerman, *Financial accounting theory*. Melbourne: McGraw Hill, 2006.

[40] I. Zumente and J. Bistrova, "ESG importance for long-term shareholder value creation: Literature vs. practice," *Journal of Open Innovation: Technology, Market, and Complexity,* vol. 7, no. 2, p. 127, 2021. https://doi.org/10.3390/joitmc7020127

[41] R. Samans and J. Nelson, *Sustainable enterprise value creation: Implementing stakeholder capitalism through full ESG integration*. New York: Springer, 2022.

[42] N. Saini, A. Antil, A. Gunasekaran, K. Malik, and S. Balakumar, "Environment-social-governance disclosures nexus between financial performance: A sustainable value chain approach," *Resources, Conservation and Recycling*, vol. 186, p. 106571, 2022. https://doi.org/10.1016/j.resconrec.2022.106571
[43] N. O. D. Ellili, "Environmental, social, and governance disclosure, ownership structure and cost of capital: Evidence from the UAE," *Sustainability*, vol. 12, no. 18, pp. 1-23, 2020. https://doi.org/10.3390/su12187706
[44] J. F. Lavin and A. A. Montecinos-Pearce, "ESG disclosure in an emerging market: An empirical analysis of the influence of board characteristics and ownership structure," *Sustainability*, vol. 13, no. 19, p. 10498, 2021. https://doi.org/10.3390/su131910498
[45] H. Al Amosh and S. F. Khatib, "Ownership structure and environmental, social and governance performance disclosure: The moderating role of the board independence," *Journal of Business and Socio-Economic Development*, vol. 2, no. 1, pp. 49-66, 2022. https://doi.org/10.1108/jbsed-07-2021-0094
[46] J. Godfrey, A. Hodgson, A. Tarca, J. Hamilton, and S. Holmes, *Accounting theory*, 7th ed. New York: Wiley, 2013.
[47] K. Albitar, K. Hussainey, N. Kolade, and A. M. Gerged, "ESG disclosure and firm performance before and after IR: The moderating role of governance mechanisms," *International Journal of Accounting & Information Management*, vol. 28, no. 3, pp. 429-444, 2020.
[48] R. Chung, L. Bayne, and J. L. Birt, "Determinants of ESG disclosure among listed firms under voluntary and mandatory ESG disclosure regimes in Hong Kong," *Journal of Applied Accounting Research*, pp. 0967-5426, 2023. https://doi.org/10.1108/jaar-07-2022-0179
[49] S. Rizwan and S. Chughtai, "Reestablishing the legitimacy after fraud: Does corporate governance structure matter?," *South Asian Journal of Business Studies*, 2022. https://doi.org/10.1108/sajbs-08-2020-0286
[50] S. M. F. Falcão, R. A. R. Bezerra, and S. G. R. Da Luz, "Concepts and forms of greenwashing: A systematic review," *Environmental Sciences Europe*, vol. 32, no. 1, pp. 1-12, 2020. https://doi.org/10.1186/s12302-020-0300-3
[51] M. Cordazzo, L. Bini, and G. Marzo, "Does the EU Directive on non-financial information influence the value relevance of ESG disclosure? Italian evidence," *Business Strategy and the Environment*, vol. 29, no. 8, pp. 3470-3483, 2020. https://doi.org/10.1002/bse.2589
[52] A. Pratama, "Analysis of tax amnesty disclosures, tax avoidance, and firm value," *Indonesian Journal of Contemporary Accounting Research*, vol. 1, no. 1, pp. 21-33, 2019. https://doi.org/10.33455/ijcar.v1i1.89
[53] S. Khalid, K. Hung, and J. Wiley, "The ESG value opportunity: A decision point for utilities," *Climate and Energy*, vol. 38, no. 5, pp. 10-17, 2021. https://doi.org/10.1002/gas.22261
[54] I. Zumente and N. Lāce, "ESG rating—necessity for the investor or the company?," *Sustainability*, vol. 13, no. 16, p. 8940, 2021. https://doi.org/10.3390/su13168940
[55] G. O. Botchway and O. J. Bradley, "The diffusion of the sustainable development goals (SDGs): An examination of preparer perceptions," *Sustainability Accounting, Management and Policy Journal*, vol. 14, no. 2, pp. 289-312, 2023. https://doi.org/10.1108/sampj-01-2022-0012
[56] E. Nogueira, S. Gomes, and J. M. Lopes, "Triple bottom line, sustainability, and economic development: What binds them together? A bibliometric approach," *Sustainability*, vol. 15, no. 8, p. 6706, 2023. https://doi.org/10.3390/su15086706
[57] K. Hummel and M. Szekely, "Disclosure on the sustainable development goals–Evidence from Europe," *Accounting in Europe*, vol. 19, no. 1, pp. 152-189, 2022. https://doi.org/10.1080/17449480.2021.1894347
[58] A. Amel-Zadeh and G. Serafeim, "Why and how investors use ESG information: Evidence from a global survey," *Financial Analysts Journal*, vol. 74, no. 3, pp. 87-103, 2018. https://doi.org/10.2469/faj.v74.n3.2
[59] U. Sekaran, *Research method in business*. New York: John Wiley and Sons, 2019.
[60] J. F. Hair, W. C. Black, B. J. Babin, and R. E. Anderson, *Multivariate data analysis*, 8th ed. London: Cengage, 2019.
[61] J. J. Kung, A. P. Carverhill, and R. H. McLeod, "Indonesia's stock market: Evolving role, growing efficiency," *Bulletin of Indonesian Economic Studies*, vol. 46, no. 3, pp. 329-346, 2010. https://doi.org/10.1080/00074918.2010.522503
[62] M. U. Mai and Setiawan, "Dividend policy on IPOs companies in Indonesia: A life cycle theory test," *WSEAS Transactions on Business and Economics*, vol. 18, pp. 21-30, 2021. https://doi.org/10.37394/23207.2021.18.3
[63] T. R. Wulandari and D. Setiawan, "Ownership concentration, foreign ownership and tunneling in Indonesia," *Rajagiri Management Journal*, vol. 17, no. 1, pp. 21-36, 2023. https://doi.org/10.1108/ramj-12-2020-0068
[64] A. Wijaya and P. Glasbergen, "Toward a new scenario in agricultural sustainability certification? The response of the Indonesian national government to private certification," *The Journal of Environment & Development*, vol. 25, no. 2, pp. 219-246, 2016. https://doi.org/10.1177/1070496516640857
[65] J. P. Williams, "Global trends and tribulations in mining regulation," *Journal of Energy & Natural Resources Law*, vol. 30, no. 4, pp. 391-422, 2012. https://doi.org/10.1080/02646811.2012.11435304
[66] D. Acuti, M. Bellucci, and G. Manetti, "Company disclosures concerning the resilience of cities from the sustainable development goals (SDGs) perspective," *Cities*, vol. 99, p. 102608, 2020. https://doi.org/10.1016/j.cities.2020.102608
[67] G. Michelon, "Sustainability disclosure and reputation: A comparative study," *Corporate Reputation Review*, vol. 14, pp. 79-96, 2011. https://doi.org/10.1057/crr.2011.10
[68] E. Susilowati, C. Joseph, V. Vendy, and I. Yuhertiana, "Advancing SDG No 16 via corporate governance disclosure: Evidence from Indonesian and Malaysian FinTech companies' websites," *Sustainability*, vol. 14, no. 21, p. 13869, 2022. https://doi.org/10.3390/su142113869
[69] S. Cosma, A. Venturelli, P. Schwizer, and V. Boscia, "Sustainable development and European banks: A non-financial disclosure analysis," *Sustainability*, vol. 12, no. 15, p. 6146, 2020. https://doi.org/10.3390/su12156146
[70] A. T. Ejarque and V. Campos, "Assessing the economy for the common good measurement theory ability to integrate the SDGs into MSMEs," *Sustainability*, vol. 12, no. 24, p. 10305, 2020. https://doi.org/10.3390/su122410305
[71] H.-T.-P. Phan, F. De Luca, and L. Iaia, "The "walk" towards the UN Sustainable development goals: Does mandated "talk" through nonfinancial disclosure affect companies' financial performance?," *Sustainability*, vol. 12, no. 6, p. 2324, 2020. https://doi.org/10.3390/su12062324
[72] H. Kuswantoro, M. Sholihin, and H. G. Djajadikerta, "Exploring the implementation of sustainable development goals: A comparison between private and state-owned enterprises in Indonesia," *Environment, Development and Sustainability*, vol. 25, no. 10, pp. 10799-10819, 2022. https://doi.org/10.1007/s10668-022-02505-1

[73] D. Adhariani and D. E. Toit, "Readability of sustainability reports: Evidence from Indonesia," *Journal of Accounting in Emerging Economies*, vol. 10, no. 4, pp. 621-636, 2020. https://doi.org/10.1108/jaee-10-2019-0194
[74] A. Galeazzo, T. Miandar, and M. Carraro, "SDGs in corporate responsibility reporting: A longitudinal investigation of institutional determinants and financial performance," *Journal of Management and Governance*, pp. 1-24, 2023. https://doi.org/10.1007/s10997-023-09671-y
[75] T. Bridges and D. Eubank, "Everything or anything how businesses can start with the SDGs," *Journal of Business Administration*, vol. 44, no. 1, pp. 75-103, 2019.
[76] M. M. Hanafi and A. Setiawan, "Ownership concentration, institutional ownership, and IPO underpricing: Evidence from Indonesia stock exchange," *International Journal of Governance and Financial Intermediation*, vol. 1, no. 1, pp. 3-17, 2018. https://doi.org/10.1504/ijgfi.2018.10012597
[77] S. Veltri, E. Cristiano, and O. Ferraro, "Examining the quality of the consolidated mandatory non-financial statements of a cooperative banking group: A longitudinal analysis," *Corporate Social Responsibility and Environmental Management*, vol. 30, no. 4, pp. 1573-1587, 2023. https://doi.org/10.1002/csr.2436
[78] M. Riegler, "Towards a definition of sustainable banking-a consolidated approach in the context of guidelines and strategies," *International Journal of Corporate Social Responsibility*, vol. 8, no. 1, pp. 1-26, 2023. https://doi.org/10.1186/s40991-023-00078-4
[79] L. K. Haywood and M. Boihang, "Business and the SDGs: Examining the early disclosure of the SDGs in annual reports," *Development Southern Africa*, vol. 38, no. 2, pp. 175-188, 2021. https://doi.org/10.1080/0376835x.2020.1818548
[80] C. Joseph, J. Gunawan, N. Madi, T. Janggu, M. Rahmat, and N. Mohamed, "Realising sustainable development goals via online integrity framework disclosure: Evidence from Malaysian and Indonesian local authorities," *Journal of Cleaner Production*, vol. 215, pp. 112-122, 2019. https://doi.org/10.1016/j.jclepro.2019.01.057
[81] J. Puroila and H. Mäkelä, "Matter of opinion: Exploring the socio-political nature of materiality disclosures in sustainability reporting," *Accounting, Auditing & Accountability Journal*, vol. 32, no. 4, pp. 1043-1072, 2019. https://doi.org/10.1108/aaaj-11-2016-2788

Appendix 1.
SDG (Sustainable development goals) disclosure (Variable Y) matrix.

SDG component	Component name	Definition
1	No poverty	Any company activities provide infrastructure and financial assistance to disadvantaged communities outside the company.
2	No hunger	Any activities of the company that assist in the form of food and beverage facilities (Short-term) or agricultural infrastructure and development related to agriculture to communities outside the company.
3	Good health and well-being	Company activities that benefit both the external community and internal employees, ensuring a healthy life (e.g., employee health programs, employee insurance programs, employee health and safety programs, the establishment of clinics and community healthcare facilities, and provision of free medical treatment to the community).
4	Quality education	Company activities that benefit both the external community and internal employees, ensuring good education and competency (e.g., internal or external scholarship programs, educational contributions to the community, establishment and activities of the company's educational foundation).
5	Gender equality	Company activities that benefit both the external community and employees, focusing on empowering women.
6	Clean water and sanitation	Company activities are directed towards the external community that focuses on providing clean water and adequate sanitation.
7	Affordable and clean energy	Company activities directed towards the external community or companies, emphasising energy efficiency, using alternative energy, and strengthening sustainable energy infrastructure (e.g., contributions/grants for renewable energy, use of renewable energy within the company).
8	Decent work and economic growth	Company activities are directed towards the external community or other companies that focus on creating a good working environment (for the company) and empowering small medium enterprises (SMEs) (for the external community).
9	Industry, innovation and infrastructure	Company activities directed towards the external community or other companies related to the company's innovation in any field and public infrastructure development for the external community.
10	Reduce inequalities	Company activities are directed towards the external community to reduce economic inequality between the wealthy and the poor through various forms of assistance or contributions, infrastructure support in any field, scholarships, or services provided to the community.
11	Sustainable cities and communities	Company activities directed towards the external community related to the development of the areas surrounding the company and associated with sustainable energy use by the company or the community.

SDG component	Component name	Definition
12	Responsible consumption and production	Company activities oriented towards providing environmentally friendly and sustainable products and services.
13	Climate action	Company activities both internally and in the community aimed at preventing environmental damage (e.g., use of environmentally friendly products, tree planting or environmental restoration corporate social responsibility (CSR) programs).
14	Life below water	Company activities in the external community aimed at preserving marine ecosystems (Corporate social responsibility (CSR) programs in marine ecosystems).
15	Life on land	Company activities in the external community aimed at preserving terrestrial ecosystems (Corporate social responsibility (CSR) programs in terrestrial ecosystems).
16	Peace, justice, and strong institutions	Company activities internally related to combating corruption, enforcing governance within the company, and advocating law enforcement in society.
17	Partnerships for the goals	Company activities related to partnerships /collaborations with social community organisations focused on sustainability (e.g., Corporate social responsibility (CSR) activities with national or international non-governmental organizations (NGOs)).