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A Holistic View of Corporate Sustainability: From Disclosure to Governance Development

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Abstract: This study examines the effects of carbon emission disclosure, green accounting, material flow cost accounting, and the presence of women on boards of directors on sustainability development. Sustainability development emphasizes that companies carrying out business do not only focus on economic benefits, but also on benefits for the surrounding environment. This study utilizes secondary data, specifically annual reports and sustainability reports, obtained from the official websites of the relevant companies. The population used consists of companies that received the Asia Sustainability Report Rating award and were listed on the Sharia Securities List during the 2018-2023 period, totaling 66 companies. The sampling technique employs purposive sampling to collect company data that matches the specified criteria. Data analysis employs classical assumption tests and hypothesis testing using multiple regression analysis, aided by the IBM SPSS program. The results showed that carbon emission disclosure and material flow cost accounting had a significant impact on sustainability development. Green accounting and women's directors are expected to impact sustainable development, but this has not been proven in this study. The lack of effect of green accounting on sustainable development is due to the companies studied not clearly defining the indicators of green accounting in their financial statements. Information related to social and environmental issues has not been fully disclosed. In addition, some of the companies studied tend to appoint few women as directors, which is suspected to be the reason for the unproven influence of women on the board of directors on sustainability development.

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Introduction

The company's focus on continuing to increase profits makes the company's attention to the environmental impact of the activities carried out by the company increasingly thin (Salsa & Hotman, 2022). This is exacerbated by the company's ambition to continue using increasing natural resources solely to achieve maximum company performance (Aida & Mimin, 2019; Vika, 2022). In the long run, the company's business activities trigger increasing global warming (Dani & Hartono, 2022). This increase raises concerns about the impact of business activities on global warming and society (Mavis & Richmond, 1992).

Sustainability development is significant because it refers to the part of the company's operating activities that result in higher performance and long-term sustainability (Triyanti et al., 2022). So far, sustainable development has become an increasingly significant concern among investors, who are more interested in companies that not only seek economic benefits but also prioritize environmental sustainability (Beattie, 2024). Beattie (2024) further explains that there are three pillars of sustainable development: economic, environmental, and social (Beattie, 2024). The environmental pillar of the company can enhance environmental sustainability by reducing carbon emissions. The social responsibility pillar encompasses practices that benefit the wider community, particularly within the company, while the economic pillar refers to maintaining transparent and honest accounting practices. The phenomenon that occurs indicates that there are still companies that fail to disclose their sustainability reports appropriately. In 2019, 94 companies reported sustainability reports, which is not comparable to the total number of companies listed on the Indonesia Stock Exchange (IDX) (Sasa & Aliza, 2023). Additionally, the government has sought to enhance sustainability by recognizing companies that demonstrate excellence in environmental management. However, there are still companies that violate environmental regulations, resulting in red and black records, with 887 companies having red records and 2 having black records (Government Regulation of the Republic of Indonesia, 2022). This case illustrates that achieving corporate sustainability is not only measured by the profit earned, but also by environmental and social responsibility, so that companies and society benefit from one another.

Liu et al. (2023) in their research explain that corporate carbon emissions are not just a simple response to social events, but also help turn threats into opportunities. In addition, Li (2020) focuses on the presence of directors and their effectiveness, noting that the presence of directors in sustainability has no connection with the company's overall sustainability performance. About the board of directors, the research wants to examine the presence of women in the board of directors in the company, this is because Indonesia in gender inequality has the highest GII score in ASEAN, namely 0.48 points, which means that Indonesia is still not optimal in building gender equality (Nugroho, 2022). Rakesa and Desak (2022) examined the factors that impact corporate sustainability in manufacturing companies, demonstrating that green accounting affects corporate sustainability, while material flow cost accounting influences the disclosure of corporate sustainability in Indonesia. Based on the results of statistical analysis of the corporate sustainability disclosure data set, the environmental dimension and the economic dimension have the most significant average values, implying that improving environmental management by companies is indispensable in the process of advancing sustainable economic and social development. In contrast, the social dimension has a small average value, providing evidence that corporate social responsibility is less important than maximizing company profits. This study also examines the consistency of the pillars of corporate sustainability, where environmental, economic, and social factors have a positive impact on companies that implement corporate social responsibility.

According to the statistical analysis of the corporate sustainability disclosure data set, the environmental and economic dimensions exhibit the most significant average values, indicating that improving environmental management by companies is crucial for promoting sustainable economic and social development. In contrast, the social dimension has a small average value, providing evidence that corporate social responsibility is less important than maximizing company profits. This study also examines the consistency of the pillars of corporate sustainability, where environmental, economic, and social factors have a positive impact on companies that undertake environmental and social responsibilities, thereby helping to maximize company value. This research aims to re-examine the

sustainability of the company in terms of carbon emission disclosure, green accounting, material flow cost accounting, and the representation of women on the board. Through the carbon emission disclosure aspect, stakeholders can assess the company's responsibility in reducing greenhouse gas emissions, using green accounting and material flow cost accounting as tools to manage waste and promote the use of efficient and practical materials. The women on board aspect is a vital element because it carries out the company's activities.

The difference with previous research that raises the topic of corporate sustainability is that this study seeks to examine the media used in supporting the company's commitment to the environment, as well as the social aspects, among companies included in the Asia Sustainability Reporting Rating (ASSRAT) award and those listed on the Sharia Securities List. Additionally, this study examines the role of women on boards in corporate sustainability activities. Consideration of the 2018-2023 research year is warranted because in 2019, large-scale social restrictions were implemented to tackle outbreaks which hampered company activities. The results of previous research, which demonstrate the existence of phenomena related to sustainable development, yet still reveal inconsistencies in research on this topic, form the basis for the need to conduct this study. In addition, this research is also important not only to justify the subjectivity of the researcher but also to build upon the phenomena that occur and previous research.

Literature Review and Hypothesis Development

Stakeholder theory

This theory posits that adopting relationships, impacts, and responsibilities towards stakeholders can address issues of value creation and trade, as capitalism becomes a dominant tool in creation by limiting attention to economic impacts, which can produce adverse views (Freeman, 2010). Companies are embedded, established, and maintained by stakeholders on whom the company relies to achieve its long-term goals. As a practical solution, the phenomenon of sustainability must be analyzed and solutions developed from perspectives that involve stakeholders from various environmental and social-related disciplines (Mahajan et al., 2023).

Legitimacy theory

Legitimacy theory emphasizes that companies conduct their activities by the rules and norms of society to avoid sanctions (Denhere, 2022). The legitimacy gap disrupts company activities, which is due to community expectations, and there is limited information (Ramadhan et al., 2023). This theory serves as a communication mechanism for informing entity actions, grounded in the concept of sustainable development (Zyznarska-Dworczak, 2018).

Hypothesis Development

Carbon Emission Disclosure

Sustainable development has a dynamic perspective encompassing environmental, economic, and social aspects that focus on maintaining aspects for future generations (Fuadah, 2018). Transparent sustainability reporting fosters good relationships with stakeholders and supports long-term profits (Fuadah, 2018). Carbon emission disclosure (CED) is a pressing issue that arises in the context of climate change (Andrian & Kevin, 2021). The company's CED implementation discloses its relationship with carbon emissions, company strategies, and the dangers and opportunities associated with climate change. CED disclosure enables the company to maintain a positive image within the community, leading to increased support from stakeholders and a reduced risk of prosecution and fines resulting from environmental damage.

H1: Carbon emission disclosure affects sustainability development.

Green Accounting

Green accounting requires a combination of benefits and environmental costs into decision-making that affects people around the company (Azlaila Nurul Khotimah et al., 2022). The purpose of developing green accounting is to utilize it as a tool to manage and mediate the environment and society, as a company's contribution to the surrounding environment, and to assess the effectiveness of company activities based on the summary and classification of environmental conservation costs (Wenni Anggita et al., 2022). Green accounting fosters a positive image of the company by enabling it to mitigate the impact of its activities (Rakesa & Werastuti, 2022).
H2: Green accounting has a positive effect on sustainable development.

Material Flow Cost Accounting

Material flow cost accounting is an environmental management accounting method that tracks and measures the flow and stock of materials within an organization (Kitada et al., 2022). Material flow cost accounting offers the advantage of utilizing materials effectively, which in turn reduces the company's negative environmental impact and increases profits (Rahmania Santi et al., 2022). Material flow cost accounting enables the company's production activities to achieve high profits while minimizing the expenditure on production material costs (Selpiyanti & Fakhroni, 2020).
H3: Material flow cost accounting has a positive effect on sustainable development.

Woman Board Director

Board director is an issuer organ consisting of professionals responsible for business operations (Yahaya et al., 2022). The board of directors is elected through the general meeting of shareholders. The positions of the board of directors, which have gender diversity, can provide different opinions on problems. The proportion of women on board increases sustainability development, as diverse information enhances the quality of financial information (Wiguna et al., 2022).
H4: Women board directors have a positive effect on sustainability development.

Previous Study

This research has been based on previous research that has also examined related issues to sustainable development, including the following:

Table 1. Previous Study

No.	Researcher and Year	Research Title	Research Result
1.	Azizah Nur Fathia dan Virna Sulfitri (2023)	The Effect of Corporate Social Responsibility, Carbon Emission Disclosure, and Environmental Performance on Company Sustainability with Vision and Mission as Moderating Variables.	Carbon emission disclosure has a positive effect on corporate sustainability.
2.	Anastasia Anggarkusuma Arofah, Destin Alfianika Maharani dan Rani Kurniati (2022)	Determination of Green Accounting Implementation on Corporate Sustainability and Financial Performance in Manufacturing Companies	Green accounting affects corporate sustainability with a significant value smaller than the alpha value.
3.	Mishelei Loen (2019)	The Effect of Green Accounting Implementation and Material Flow Cost Accounting on Sustainable Development with resource efficiency as moderator	In the independent variable, material flow cost accounting does not affect the sustainable development variable, while the independent variable, green accounting, has a positive effect on sustainable development.

No.	Researcher and Year	Research Title	Research Result
4.	Triyanti Azlaila Nurul Khotimah, Nurlaili, Evi Ekawati Dan Ersi Sisidoan (2021)	Pengaruh green accounting dan material flow cost accounting terhadap keberlanjutan perusahaan dalam perspektif ekonomi islam: studi pada perusahaan manufaktur yang terdaftar di indeks sri-kehati tahun 2016-2020	Green accounting has no impact on the sustainability of the company. In contrast, material flow cost accounting has a positive and significant effect on the company's sustainability from an Islamic economic perspective.
5.	Meilda Wiguna, Sri Indarti, Thamrin dan Andreas (2022)	Implementation of Green Accounting and Women on Board in sustainability development	Green accounting and the presence of women on boards have an impact on corporate sustainability.
6.	Maria del Carmen Valls martinez, Salvador Cruz Rambaud dan Isabel Maria Parra Oller (2019)	Gender Policies on the board of directors and sustainable development	The presence of women has a positive effect on the sustainability of the company.
7.	Nawang Kalbuana, Kusiyah, Supriatiningsih, Roy budiharjo, triyani budyastuti dan rusdiyanto\	Effect of profitability, audit committee, company size, activity, and board of directors on sustainability	The higher the number of board members, the less impact it has on decreasing sustainability, and vice versa.
8.	Bambang Tjahjadi, Noorlailie Soewarno dan Febriani Mustikaningtiyas	Good corporate governance and corporate sustainability performance in Indonesia: A triple bottom line approach	Good corporate governance on sustainability performance encompasses economic, social, and environmental factors, utilizing the Triple Bottom Line, which is measured by size and education. Size has a positive effect on economic sustainability performance but an adverse effect on social and environmental sustainability. Education, on the other hand, hurts all three aspects of sustainability: economic, environmental, and social.
9.	Yang Stephanie Liu, Xiaoyan Zhou, Jessica Hong Yang, Andreas GF Hoepner dan Nada Kakabadse	Carbon Emissions, Carbon Disclosure, and Organizational Performance	Carbon Emissions companies turn threats into opportunities, and companies disclose more Carbon Emissions because they understand future changes that can protect the value of the company.

Research Framework

The relationship between the independent variable and the dependent variable in this study can be explained by the following model:

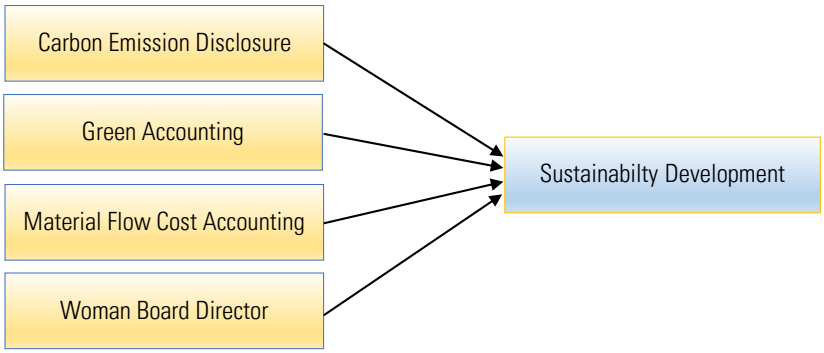

Figure 1. Research Framework

Method

This study utilizes annual reports and sustainability reports, which are accessed through the official websites of the relevant companies. The appropriate sample from the purposive sampling method was 31 samples that met the criteria. The samples were analyzed with multiple linear regression analysis models using the SPSS 29 application.

The indicators of sustainable development (Azapagic, 2003).

Economic = Investment + Profit + Sales
Social = Salary costs + Benefits and pensions
Environment = Corporate Social Responsibility

Measurement indicators are obtained through index disclosure in the annual report and sustainability report, comprising 18 CED items. If the item is disclosed, it receives a score of 1; if the item is not disclosed, it receives a score of 0. These scores are then summed and divided by the total number of disclosures.

Table 2. Carbon Emission Check List

Category	Code	Item
Climate Change: Risks and Opportunities	CC-1	Assessment/description of risks (regulatory/specific, both general and specific) related to climate change and actions taken to manage these risks.
	CC-2	Assessment/description of current (and future) financial, business, and opportunity implications of climate change.
Greenhouse Gas Emissions (GHG)	GHG-1	Description of the methodology used to calculate greenhouse gas emissions (e.g., GHG protocol or ISO).
	GHG-2	Existence of external verification of GHG emissions quantity by whom and on what basis.
	GHG-3	Total greenhouse gas emissions (metric tons CO2-e) generated
	GHG-4	Scope 1, 2, or 3 disclosure of direct GHG emissions
	GHG-5	Disclosure of GHG emissions by origin or source (e.g., coal, electricity, etc.)
	GHG-6	Disclosure of GHG emissions at the facility or segment level.
	GHG-7	Comparison of GHG emissions with previous years.
Energy Consumption (EC)	EC-1	The amount of energy consumed (e.g., tera-joules, peta-joules).
	EC-2	Calculation of energy used from renewable resources.
	EC-3	Disclosure by type, facility, or segment.

Category	Code	Item
Greenhouse Gas Reduction and Cost (RC)	RC-1	Details of the plan or strategy to reduce GHG emissions.
	RC-2	Specification of the target level and year of GHG emission reductions.
	RC-3	Emission reductions and costs or savings achieved to date as a result of the carbon emission reduction plan.
	RC-4	Future emission costs are factored into capital expenditure planning.
Carbon Emissions Accountability	CEA-1	An indication of where the board (or other executive body) has responsibility for actions related to climate change.
	CEA-2	Describe the mechanism by which the board (or other executive body) reviews the company's progress on climate change.

Source: Marota (2017)

Green accounting in this study includes 14 indicators, including information about:

Table 3. Dimensions and Indicators of Green Accounting Disclosure

No.	Dimension	Indicator
1.	Contribution to the natural environment, energy, human resources (employees), and society.	1. Acceptance of the environmental management system, 2. Energy efficiency efforts 3. emission reduction efforts 4. Implementation of reduce, reuse, recycle B3 and non-B3 waste, 5. Water conservation and reduction of water pollution load, 6. Protection of biodiversity, 7. Community development program
2.	The positive and negative economic, social, and ecological impacts of the company's business activities on the natural environment, energy, employees, and society.	1. The positive impact of the company's business activities, 2. The company's negative impacts.
3.	The company's contribution to addressing ecological issues.	1. Water pollution control, 2. Air pollution control 3. Management of hazardous and toxic waste, 4. Seawater pollution control, 5. Potential land damage.

Source: Nur'ainun & Lestari (2017)

Furthermore, measuring using content analysis (Selpiyanti & Fakhroni, 2020) with the following explanation:

Table 4. Analysis Content

No	Scor	Description
1	0	Energy, basic materials, infrastructure, and industrials companies that do not disclose green accounting indicators in the annual report.
2	1	Energy, basic materials, infrastructure, and industrials companies that only disclose green accounting indicators with numbers or images in the annual report.
3	2	Energy, basic materials, infrastructure, and industrials companies that disclose green accounting indicators along with a narrative in their annual reports.

No	Scor	Description
4	3	Energy, basic materials, infrastructure, and industrials companies that disclose green accounting in the form of narratives supported by numbers or images in the annual report.

Source: Selpiyanti & Fakhroni (2020)

The step after conducting the assessment, the score obtained will be calculated into the formulation of the Green Accounting variable according to (May et al., 2023):

$$GA_j = \frac{\sum Xij}{nj}$$

Description:
GA_j = Green Accounting
Xij = Total Score of content analysts per dimension
Nj = number of dimensions
Material flow cost accounting in this study uses production costs in the company (Loen, 2019).
The percentage of women is calculated by dividing the number of women by the total number of board members (Valls Martínez et al., 2019).

Result and Discussion

The population used in this study consists of companies that received the Asia Sustainability Report Rating award and were listed on the Sharia Securities List during the 2018-2023 period, totaling 66 companies. While the sample used uses a purposive sampling method, with the following results:

Table 5. Autocorrelation Test Result

No.	Description	Total
1.	Companies that received the Asia Sustainability Report Rating award and have been listed on the Sharia Securities List during the period 2018-2023	66
2.	Companies that are not included in the energy, basic materials, infrastructure, and industrial sectors during the period 2018-2023	(14)
3.	Companies in the energy, basic materials, infrastructure, and industrial sectors that publish annual reports and sustainability reports using foreign currencies	(21)
	Final sample size	**31**

Source: Data Processed, 2024

The classical assumption test results indicate that the data are normally distributed, as confirmed by the One-Sample Kolmogorov-Smirnov test, which yields a significance value of 0.267 (p> 0.05). In addition, the data analysis results also show that the data is free from multicollinearity, heteroscedasticity, and autocorrelation. The results of hypothesis testing using multiple regression analysis can be presented as follows:

Table 6. Multiple Linear Regression Analysis Results

No.	Hypothesis	B	Sig.	Result
1	H1: Carbon emissions disclosure affects sustainable development	0,114	0,039	Accepted
2	H2: Green accounting affects sustainable development	-0,054	0,297	Rejected
3	H3: Material flow cost accounting affects sustainable development	0,971	0,001	Accepted
4	H4: Women directors affect sustainable development	-0,011	0,839	Rejected

Source: Data Processed, 2024

The following test results are to determine the Adjusted R Square value and the Anova test with the following results:

Table 7. Adjusted R Square Value and ANOVA Test

No.	Hypothesis	Score	Sig.
1	Adjusted R Square	0,924	
2	Anova	F= 91,832	0,001

Source: Data Processed, 2024

According to the table above, the adjusted R-squared value is 0.924, or 92.4%, indicating that the dependent variable in this study is influenced by the independent variable to the extent of 92.4%. Then, the remaining 7.6% is influenced by other variables outside the scope of the study. Therefore, it can be concluded that by including the independent variable, the coefficient exhibits a robust correlation. In addition, the significance value of the F test is less than 0.05 (0.001), which means that variable X simultaneously affects variable Y's sustainability development.

Discussion

Carbon emission disclosure on sustainability development

The statistical test results show that the significant t-value of 0.039 is smaller than 0.05, indicating significance. Therefore, it can be inferred that the carbon emission disclosure variable has a significant impact on the sustainability development variable. Stakeholder theory and legitimacy theory suggest that companies adjust their operations to meet public expectations and market demand. Additionally, a company's good image is achieved when it discloses information to the public. Carbon emission disclosure is a form of corporate disclosure that enables companies to report their social and environmental activities. Companies carrying out operations must have limits that are acceptable to the community and avoid sanctions, which will encourage reciprocity.

The results of this study align with those of Damas et al. (2021), which indicate that carbon emission disclosure has a positive impact on sustainable development. Carbon emission disclosure includes the disclosure of a reduction plan, which compares the annual amount of carbon emissions generated to the target amount. This enables the company to be supported by stakeholders, and investors will have confidence in the company, leading to increased investment in related companies.

Green accounting on sustainable development

The significant t-value in the test results of green accounting on sustainable development shows a value of 0.297 (greater than 0.05). This means that the green accounting variable does not affect the sustainability development variable. Contrary to stakeholder theory, where all information is accessible to stakeholders. Legitimacy theory, where the legitimacy theory gap arises as a result of company activities, one of which is the continuous change in public views, and there is information submitted by the company that remains unaddressed, which leads to the company being viewed negatively. Waste management, environmental, and research and development costs presented in the financial statements are considered company expenses, prioritizing costs in the material management process over environmental costs related to green accounting, as this is expected to increase profits.

Sustainability in the corporate sector is not entirely influenced by green accounting, as the companies studied do not disclose the indicators of green accounting in their financial statements. Information relating to social and environmental matters has not been fully disclosed, which results in less significance. According to Sugiyanto and Alinsari (2022), good environmental performance indicates that the company incurs many costs to achieve it, thus affecting investors' decisions and interest in investing. The costs incurred for financial performance reduce the level of profit received by investors (Sugiyanto & Alinsari, 2022).

Material Flow Cost Accounting for Sustainable Development.

The test results show that the significance value of t is 0.001 (smaller than 0.05). This result can be interpreted as indicating that the material flow cost accounting variable has a significant effect on the sustainability development variable. The increase in production costs for companies that apply material flow cost accounting will enhance the company's sustainability. This is because the company manages

the waste generated by its business activities, thereby reducing the negative impact on the environment. Stakeholder theory and legitimacy can be demonstrated through the results of this study, where the entity must consider stakeholders in its activities to avoid a negative perception among stakeholders. Indifference to the environment or destruction of the environment has been explained in Quran Surah Al-A'raf (7): 56, namely:

> *"And do not make mischief on the earth, after (Allah) has repaired it, and pray to Him with fear (will not be accepted) and hope (will be granted). Indeed, the mercy of Allah is very near to those who do good." (Al-A'raf (7): 56)*

The verse prohibits the destruction of the environment (on earth), especially for companies that conduct business activities and benefit from the use of the environment. The emphasis of the verse also highlights the importance of maintaining environmental sustainability.

These results align with research conducted by Selpiyanti and Fakhroni (2020), which states that material flow cost accounting has a positive impact on company sustainability. Material flow cost accounting is used as a management tool for treating waste through processing and management. It aims to maximize profit, benefiting stakeholders while reducing costs and promoting company sustainability. This is achieved by minimizing waste generated during material production, which contributes to the company's sustainability development.

Board woman director on sustainability development

The statistical test results show a significant t-value of 0.839 ($p < 0.05$), indicating that the board of women directors does not affect sustainable development. Based on the observation, it is evident that the number of female directors remains very small, resulting in their less effective decision-making. This is because the companies studied tend to be low in appointing women as directors, and the presence of women does not affect the sustainability of the company. Negative influences can also be caused by women's culture or the nature of gender, which tends to avoid conflict, so that the influence of directorships occupied by women is not needed in running the company. Contrary to legitimacy and stakeholder theory which shows the extent to which stakeholders accept the company as a moral corporate citizen, involving women in the board of directors can make decision making diverse and effective in strengthening legitimacy, this is because the company under study is dominated by harsh environmental activities and the nature of women who tend to avoid conflict. This research is supported by a study conducted by Ninda et al. (2023).

Conclusion

Based on the results of research and discussion carried out by researchers, it can be concluded that the company's sustainability development is influenced by carbon emission disclosure and material flow cost accounting. The more carbon emission disclosure, the sustainability development will also increase. In addition, the higher the material flow cost accounting, the greater the sustainability development will increase. However, the test results also show that green accounting and a female board of directors do not have a significant impact on sustainability development.

This study examines it in terms of agents but has not included the principal component. Future research is expected to incorporate the Dean Commissioner variable (the principal element) or also consider the Corporate Social Responsibility variable to better explain the company's sustainability. The proxy used to measure the material flow cost accounting variable in this study utilizes production costs. For further research, various measurement indicators can be applied to the material flow cost accounting concept, including system costs, material usage costs, and energy costs.

References

Aida Meiyana and Mimin Nur Aisyah. (2019). "The Effect of Environmental Performance, Environmental Costs and Company Size on Financial Performance with Corporate Social Responsibility as an Intervening Variable (Empirical Study of Manufacturing Companies Listed on

the Indonesia Stock Exchange 2014-2," Nominal: Barometer of Accounting and Management Research 8, no. 1: 1-18.

Andrian, T., & Kevin. (2021). Determinants of Carbon Emissions Disclosure in Indonesia. Journal of Southwest Jiaotong University, 56(1). https://doi.org/10.35741/issn.0258-2724.56.1.32.

Azapagic, A. (2003). A Systems Approach to Corporate Sustainability: A Common Management Framework. Process Safety and Environmental Protection: Transactions of the Institution of Chemical Engineers, Part B, 81(5), 303–316. https://doi.org/10.1205/095758203770224342.

Azlaila Nurul Khotimah, T., Ekawati, E., & Sisdianto, E. (2022). The Effect of Green Accounting and Material Flow Cost Accounting on Company Sustainability in an Islamic Economic Perspective: Study on Manufacturing Companies Listed in the Sri-Kehati Index 2016-2020. Annual International Conference on Islamic Economics and Business, 2(1), 233-243. https://doi.org/https://doi.org/10.18326/aicieb.v2i1.172.

Beattie, A. (2024). 3 Pillars of Corporate Sustainability. Investopedia. https://www.investopedia.com/articles/investing/100515/three-pillars-corporate-sustainability.asp.

Damas, D., Maghviroh, R. EL, & Meidiyah, M. (2021). The Effect of Eco-Efficiency, Green Innovation, and Carbon Emission Disclosure on Firm Value with Environmental Performance as Moderation. Journal of Master of Accounting Trisakti, 8(2), 85-108. https://doi.org/10.25105/jmat.v8i2.9742.

Dani, Indah Mutiara and Hartono, Puji. 2022. "The Effect of Environmental Performance and Green Investment on Carbon Emissions Disclosure," Diponegoro Journal of Accounting 11, no. 4 (2022): 1-10.

Denhere, V. (2022). COVID-19 pandemic disclosure. (The COVID-19 pandemic disclosure). International Journal of Research in Business and Social Science (2147–4478), 11(2), 336–347. https://doi.org/10.20525/ijrbs.v11i2.1627.

Freeman, R. E. S. H. A. C. C. W. B. P. de C. (2010). Stakeholder Theory: The State Of The Art. Cambridge University Press.

Fuadah, L. Y. H. S. (2018). Disclosure of Sustainability Reporting in Indonesia (D. Kusnadi (ed.)). Citrabooks Indonesia.

Government Regulation of the Republic of Indonesia. (2022). Decree of the Minister of Environment and Forestry of the Republic of Indonesia No. SK.1299/MENLKH/SETJEN/KUM.1/12/2022 Regarding the Results of the Assessment of Company Performance Rating in Environmental Management for 2021-2022 (pp. 1-23).

Kitada, H., Tennojiya, T., Kim, J., & Higashida, A. (2022). Material flow cost accounting management practices and their discontinuation. Cleaner Environmental Systems, 6(March), 100089. https://doi.org/10.1016/j.cesys.2022.100089.

Li, Z. (2020). Corporate sustainability in Australia: Performance, disclosure, and governance.

Liu, Y. S., Zhou, X., Yang, J. H., Hoepner, A. G. F., & Kakabadse, N. (2023). Carbon emissions, carbon disclosure, and organizational performance. International Review of Financial Analysis, 90(March), 102846. https://doi.org/10.1016/j.irfa.2023.102846.

Loen, S.E., M.Si, M. (2019). The effect of implementing Green Accounting and Material Flow Cost Accounting (MFCA) on Sustainable Development with Resource Efficiency as moderation. Krisnadwipayana Journal of Accounting and Business, 6(3), 14–25. https://doi.org/10.35137/jabk.v6i3.327.

Mahajan, R., Lim, W. M., Sareen, M., Kumar, S., & Panwar, R. (2023). Stakeholder theory. Journal of Business Research, 166 (December 2022), 114104. https://doi.org/10.1016/j.jbusres.2023.114104.

Marota, R. (2017). Green Concept and Material Flow Cost Accounting Application for Corporate Sustainability. Indonesian Journal of Business and Entrepreneurship, 3(1), 43–51. https://doi.org/10.17358/ijbe.3.1.43.

Mavis Pobbi, Emmanuel Atta Anaman, and Richmond Sam Quarm (1992). "Corporate Sustainability Reporting: Empirical Evidence from Ghana," Journal of Economics and Business 3, no. 3 (September 30, 2020), https://doi.org/10.31014/aior.1992.03.03.256.

May, S. P., Zamzam, I., Syahdan, R., & Zainuddin, Z. (2023). The Effect of Green Accounting Implementation, Material Flow Cost Accounting, and Environmental Performance on Sustainable Development. Owner, 7(3), 2506-2517. https://doi.org/10.33395/owner.v7i3.1586.

Ninda Ayu Primadani et al., 2023, "The Effect of Institutional Ownership, Proportion of Independent Commissioners, Gender of Female Board of Directors, and Company Size on Corporate Financial Performance," Asian Journal of Management Analytics 2, no. 1 (2023): 13–28, https://doi.org/10.55927/ajma.v2i1.2516.

Nugroho, H. (2022). Gender Disparities and Economic Development. Regional Office of Resources of the Ministry of Finance of the Republic of Indonesia.

Nur'ainun, U., & Lestari, R. (2017). Environmental Accounting Disclosure and Financial Performance. Snab, 1(1), 107-116.

Quran, Qs. Al-A'araf (7): 56.

Rahmania Santi, A., Andi, K., Lindrianasari, L., & Oktavia, R. (2022). The Impact of Applying Material Flow Cost Accounting on Green Accounting and Financial Performance. Fair Value: Scientific Journal of Accounting and Finance, 5(2), 723-732. https://doi.org/10.32670/fairvalue.v5i2.2327.

Rakesa, P. R. C., & Werastuti, D. N. S. (2022). The Effect of Green Accounting Implementation and Material Flow Cost Accounting on Corporate Sustainability: Empirical Study on Textile and Garment Companies .... JIMAT (Scientific Journal of Accounting Students), 13 (1), 1141-1152.

Ramadhan, M. A., Mulyany, R., & Mutia, E. (2023). The irrelevance of R&D intensity in the ESG disclosure? Insights from the top 10 listed companies on global Islamic indices. Cogent Business and Management, 10(1). https://doi.org/10.1080/23311975.2023.2187332.

Salsa Khairunisa Salsa & Hotman Tohir Pohan (2022). "The Effect of Disclosure of Carbon Emissions, Environmental Performance and Environmental Costs on Corporate Financial Performance," Trisakti Economic Journal 2, no. 2: 283–92, https://doi.org/10.25105/jet.v2i2.14144.

Sasa S Suratman, Mochammad Ridwan, and Aliza Pravitasari Putri, (2023). "Disclosure of Sustainability Reporting with the Effects of Profitability and Good Corporate Governance Mechanisms," 14, no. 2: 283–92.

Selpiyanti, S., & Fakhroni, Z. (2020). The Effect of Green Accounting Implementation and Material Flow Cost Accounting on Sustainable Development. ASET Journal (Accounting Research), 12(1), 109-116. https://doi.org/10.17509/jaset.v12i1.23281.

Sugiyanto, Amelia Natasya, and Alinsari Natasia, (2022). "Profitability and Firm Value: The Mediating Role of Environmental Performance," AFRE (Accounting and Financial Review) 5, no. 2 (2022): 207–13, https://doi.org/10.26905/afr.v5i2.7542.

Triyanti Azlaila Nurul Khotimah, Evi Ekawati, & Ersi Sisdianto (2022). "The Effect of Green Accounting and Material Flow Cost Accounting on Corporate Sustainability in Islamic Economic Perspective: Study on Manufacturing Companies Listed on the Sri-Kehati Index 2016-2020," Annual International Conference on Islamic Economics and Business 2, no. 1: 233–43, https://doi.org/https://doi.org/10.18326/aicieb.v2i1.172.

Valls Martínez, M. del C., Cruz Rambaud, S., & Parra Oller, I. M. (2019). Board gender policies and sustainable development. Corporate Social Responsibility and Environmental Management, 26(6), 1539-1553. https://doi.org/10.1002/csr.1825.

Vika, Dihni. 2022. "Ministry of Finance Records Natural Resources Revenues Reached Rp74.4 Trillion in April 2022," Databoks, 2022, https://databoks.katadata.co.id/datapublish/2022/05/27/kemenkeu-catat-pendapatan-sumber-daya-alam-capai-rp744-triliun-pada-april-2022.

Wenni Anggita, Ari Agung Nugroho, & Suhaidar. (2022). Disclosure of Carbon Emissions and Green Accounting Practices on Firm Value. Journal of Accounting, 26(3), 464-481. https://doi.org/10.24912/ja.v26i3.1052.

Wiguna, M., Indarti, S., Thamrin, & Andreas. (2022). Implementation of Green Accounting and Women on the Board in Sustainable Development. Journal of Financial and Business Accounting, 15(2), 626–635. https://doi.org/https://doi.org/10.35143/jakb.v15i2.5716.

Yahaya, K. A., Bamigbade, D., & Ajiboye, G. O. (2022). The Effect of Corporate Governance on Environmental Disclosure by Listed Nigerian Consumer Goods Companies. Journal of Business Administration, 11(1), 53-64. https://doi.org/10.14710/jab.v11i1.41599.

Zyznarska-Dworczak, B. (2018). Legitimacy Theory in Management Accounting Research. Problemy Zarzadzania, 16(1(72)), 195-203. https://doi.org/10.7172/1644-9584.72.12