JURNAL AKUNTANSI, MANAJEMEN DAN EKONOMI
Vol. 25, No. 02, 2023, pp. 7 - 14
Published online in http://jos.unsoed.ac.id/index.php/jame
ISSN: 1410-9336/E-ISSN: 2620-8482

Green Accounting in Environmental Disclosure and Corporate Social Responsibility Perspective in Indonesia

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Abstract

The modern era is characterized by technological developments followed by increasing environmental problems. Many of these problems arise from human activities to gain profit. The implementation of *green accounting* is carried out in the form of environmental activities in terms of costs and benefits to increase the efficiency of environmental management. This study examines how the implementation of *green accounting* in developing countries, such as Indonesia. This type of research is descriptive research with a quantitative approach. The population used in this study are all companies listed on the Indonesia Stock Exchange (IDX) in the period 2012 to 2021. The sampling technique uses *purposive sampling* so that 28 companies are obtained each year. The results of the study prove that out of 12 items of disclosure of environmental information, only 3 items of the disclosure that have a value of mode 5, namely: (1) Information regarding steps or ways to reduce the environmental impact of the products and/or services produced; (2) Information on measurable commitments to reduce dependence on renewable or non-renewable resources; (3) Information regarding waste disposal and recycling. In addition, there are 3 disclosure items have a value of mode 1, namely: (1) Information about initiatives to provide efficient energy or renewable energy; (2) Accounting for waste and pollution from the company's operating activities; and (3) Significant fines and non-monetary sanctions for non-compliance.

Keywords Green Accounting; Environmental Disclosure; Corporate Social Responsibility

INTRODUCTION

Environmental issues are a discussion that is still considered relevant today. The modern era is characterized by technological developments followed by increasing environmental problems. Many of these problems arise from human business activities to gain profit. Utilization of resources originating from the environment, such as land, water, and air to increase *company value.* The company is ideally accompanied by a reciprocal relationship to preserve these resources.

In principle, the environment is an important thing that plays a major role in supporting business processes, so companies are also required to strive for the welfare of society and the environment, in addition to the welfare of the owners and shareholders of the company. Cases of environmental pollution committed by several companies reflect how little awareness business people have of protecting and preserving the environment. Even though the community, in this case, also acts as a consumer of a business product directly side by side with the environment.

Environmental issues have become international issues that are constantly being discussed. On the international stage, including in Indonesia, there has been a social and environmental crisis that threatens the sustainability of the earth and human life (Lako, 2018). This crisis arose as a result of the incessant economic and business development that was oriented toward profit alone.

The science of accounting has an important role in supporting environmental preservation through environmental disclosures in financial statement results activities. The accounting system included in this case relates to the disclosure of environmental cost information issued by companies or is referred to as green

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Received: 22 Feb 2023
Accepted: 21 Mar 2023
Published: 30 June 2023

accounting. Green Accounting is a record consisting of phenomena, objects, and activities that occur within the surrounding community and are related to assets, such as land, carbon, and water (Lako, 2018).

According to Elkington, green accounting has three pillars, namely environmental, social, and financial accounting information. The three pieces of information are integrated (Lako, 2018). Social and environmental accounting is generally viewed separately from financial accounting (Nicholls, 2020). Environmental disclosure is a form of corporate responsibility to the community as a result of the company's business activities that spoiled the environment. Green accounting is a system for creating costs and obtaining environmental benefits. It provides information for managers to evaluate, operate, control, decide and report on, and protect the environment.

Disclosure of corporate social responsibility has been regulated in Government Regulation Number 47 of 2012 concerning Social and Environmental Responsibility of Incorporated Company, but this regulation does not yet have a specific standard form of environmental disclosure so environmental disclosures made by companies depend on the company's internal policies. Research by Dhar et al. (2022) explains that the quality of social responsibility information disclosure positively adjusts the relationship between the implementation *of* green accounting and the sustainable development capabilities of highly polluting enterprises.

The implementation of green accounting is carried out in the form of environmental activities in terms of costs and benefits to increase the efficiency of environmental management. This can be reflected in how companies report environmental costs, such as environmental research and development costs, waste recycling costs, and other environmental cost components. However, in practice, financial reporting is currently more oriented to the interests of shareholders, investors, and other users of financial information who have an interest in aspects financial directly (Modell, 2014). This causes a lack of attention to the interests of the general public who coexist directly with these resources.

Environmental accounting includes a series of activities in enhancing the strength of the accounting system to identify, record, and report the impact of environmental degradation and pollution. Such activities will form an integrated environment that can become an acceptable cost component in economic and computational processes (Dowling & Pfeffer, 1975). Environmental accounting can be applied to various industries, both service, trade, and manufacturing industries. The support of the organization's top management is very important in achieving environmental accounting success because it can create new views about environmental costs, performance, and company decisions.

The existence of disclosures related to environmental costs reported in the company's financial statements will be the basis for the study conducted by stakeholders, to form opinions related to corporate image. Society as one stakeholder which in this case can also play a role as a consumer of the company, of course, is a subject involved in ensuring the survival of the company. Disclosures made by the company can enhance the company's positive image, thus encouraging the public to become loyal consumers and have a high sense of trust in the company.

Waste recovery is one of the most important strategies for reducing environmental problems and improving the economic performance of an industry. The scarcity of resources and the increasing environmental impact resulting from the inefficient use of resources makes accounting an important matter for designing production and consumption systems in the process of consuming resources throughout the life cycle of a company's products or services (Rounaghi, 2019).

Senn & Giordano-Spring (2020) explains that disclosure of environmental accounting information in French companies listed on the SBF 120 index is still in its early stages due to weak regulations and guidelines governing disclosure of environmental accounting in company annual reports. Environmental disclosure can be an important indicator of building a positive corporate image. Research conducted by Wicaksono et al. (2021) explains that companies with a government ownership structure are encouraged to disclose certain environmental aspects that have a positive impact on the company, whereas companies whose ownership structure consists of foreign ownership disclose more environmental information because they have a wide range of stakeholders wider.

Setiadi & Agustina (2020) explains that the effect of environmental disclosure on company value is strengthened by company profitability. A higher level of environmental disclosure will encourage stakeholders in assisting companies in achieving and increasing profits which will increase the value of the company itself. Wahyuningsih & Meiranto (2022) explains that gender diversity of directors, foreign ownership structures, and government regulations have a positive effect on the disclosure of environmental accounting information. Lestari et al. (2019) explain that the level of company profitability is affected by the implementation of green accounting as measured by environmental performance.

Different results were shown by research by Rosaline et al. (2020) which explains that implementation of green accounting does not affect economic performance as measured by using Return on Equity (ROE). Similar to this research, Faizah (2020) explains that the implementation of green accounting does not affect the company's financial performance as measured by using Net Profit Margin (NPM). Sapulette & Limba (2021) also explains that the implementation of green accounting does not affect the value of manufacturing companies in Indonesia.

This research wants to examine how the implementation of green accounting in developing countries, such as Indonesia based on registered company data (go public) on the Indonesia Stock Exchange. The company that had go public ideally can play a role in protecting the environment as a form of social responsibility and compliance with established regulations. In addition, this research is also based on the lack of similar research conducted in developing countries, so further research is needed to develop scientific knowledge in similar fields and the application of policies related to corporate environmental disclosure information.

RESEARCH METHODS

This type of research is descriptive research with a quantitative approach. The population in this study are all companies listed on the Indonesia Stock Exchange (IDX) in the 2012-2021 period. The sampling technique in this study used a purposive sample based on the following criteria: (1) Mining or energy sector companies listed on the Indonesia Stock Exchange; (2) Companies that publish annual reports during 2012-2021. Selection of criteria in the mining or energy sector companies because they are considered capable of representing the implementation of green accounting in other sectors.

This type of research is descriptive research with a quantitative approach. This study uses an interpretive approach to analyzing the content of financial statements. The instrument in this study adopted the research of Maama & Appiah (2019). Disclosure analysis of green accounting using a Likert scale with the following measurements:

- Scale 1 : very weak or no disclosure
- Scale 2 : weak or disclosure to a lesser extent
- Scale 3 : average or disclosure to some extent
- Scale 4 : strong or disclosure to a large extent
- Scale 5 : very strong or significant disclosure

RESULTS AND DISCUSSION

Result

Based on the results of this study, it is known in table 1 shows the type of information and level of disclosure found in the annual reports of companies listed on the Indonesia Stock Exchange for the last 10 years in a scale range of 1-5.

Table 1. Average Disclosure Rate

No.	Disclosure Information	Year										Disclosure Level	
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Scale	Percentage
1	Identification of environmental impacts	2,61	2,71	3,07	3,07	3,04	3,11	3,00	3,07	3,14	3,14	3,00	60%
2	Initiatives to provide energy-efficient or renewable energy	2,32	2,50	2,57	2,46	2,68	2,57	2,50	2,71	2,86	2,93	2,61	52%

3	Information on steps to moderate environmental impacts of product and services	3,50	3,86	4,00	3,82	3,79	3,75	3,79	3,75	4,00	4,07	3,83	77%
4	Information on potential or actual negative direct or indirect environmental impacts, including health and safety concern on local communities	2,32	2,32	2,96	2,79	2,79	2,82	2,86	2,86	3,04	2,96	2,77	55%
5	Information on commitments to reduce reliance on renewable and non-renewable resources	2,86	3,11	3,25	3,36	3,39	3,46	3,46	3,50	3,54	3,79	3,37	67%
6	Information on the primary source of energy	2,61	2,82	3,07	2,86	3,00	2,82	3,11	3,07	3,14	3,32	2,98	60%
7	Information on secondary and other sources of energy	2,00	1,79	1,93	2,04	1,93	1,93	1,93	2,18	2,25	2,18	2,01	40%
8	Information on source of raw materials and other inputs	2,11	2,29	2,32	2,39	2,50	2,36	2,46	2,64	2,57	2,61	2,43	49%
9	Information on waste discharge and recycling	2,75	2,86	3,14	2,96	3,04	3,14	3,14	3,14	3,18	3,11	3,05	61%
10	Accounting for waste and pollution from operations	1,43	1,25	1,36	1,36	1,32	1,50	1,46	1,50	1,54	1,39	1,41	28%
11	Information on environmental protection expenditures and investments	2,46	2,21	2,43	2,32	2,50	2,46	2,54	2,57	2,61	2,46	2,46	49%
12	Significant fines and non monitary sanctions for non-compliance	1,61	1,36	1,57	1,82	1,57	1,75	1,64	1,54	1,36	1,43	1,56	31%

Source: Data processed, 2022

Similar to the results of the average level of disclosure, the following is the mode value of each disclosure information for 10 years which is the research period.

Table 2. Disclosure Level Mode

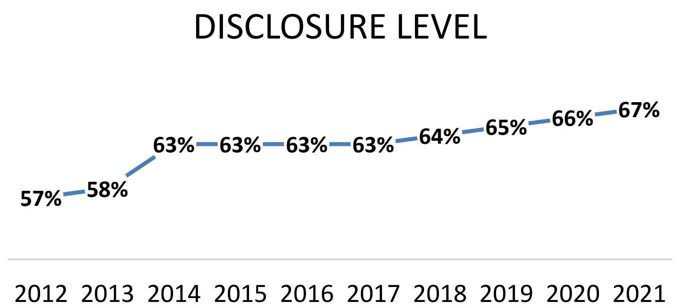
No.	Disclosure Information	Mode Value
1	Identification of environmental impacts	2
2	Initiatives to provide energy-efficient or renewable energy	1
3	Information on steps to moderate environmental impacts of product and services	5

4	Information on potential or actual negative direct or indirect environmental impacts, including health and safety concern on local communities	2
5	Information on commitments to reduce reliance on renewable and non-renewable resources	5
6	Information on the primary source of energy	2
7	Information on secondary and other sources of energy	2
8	Information on source of raw materials and other inputs	2
9	Information on waste discharge and recycling	5
10	Accounting for waste and pollution from operations	1
11	Information on environmental protection expenditures and investments	2
12	Significant fines and non monitary sanctions for non-compliance	1

Source: Data processed, 2022

Based on the table, the following is a graph of the level of disclosure for the last ten years.

Figure 1. Disclosure Level Graph



Source: Data processed, 2022

Discussion

Green accounting from environmental disclosure perspective in Indonesia

Stakeholder theory allows managers to incorporate personal value into the formulation and implementation of strategic plans (Freeman, 2004). Stakeholder theory states that the better the company's relationship with the related environment, the better the company's profits (Apriliana, 2019). Environmental disclosure is a form of corporate responsibility to society as a result of activities that have a negative impact on the environment (Widyawati & Hardiningsih, 2022) and a company effort in realizing demand stakeholders and reducing information asymmetry as a result of increasing public concern for companies regarding environmental impacts (Louie et al., 2019).

The results showed that the mode value of environmental disclosure was on a scale of 1 and 2. This means that environmental disclosure by companies is still relatively weak. Three disclosure items have a value of mode 5, namely disclosure items related to (1) Information on steps to moderate environmental impacts of product and services; (2) Information on commitments to reduce reliance on renewable and non-renewable resources; (3) Information on waste discharge and recycling. Each of these items has an average value of 77%, 67%, and 61%. This shows that environmental disclosures made by companies are still based on general information related to efforts to reduce environmental impacts, commitments to reduce resource dependence, and information on waste disposal or recycling.

This study also shows that company disclosures are related to (1) Initiatives to provide energy-efficient or renewable energy, (2) Accounting for waste and pollution from operations, and (3) Significant fines and non monitary sanctions for non-compliance, each has average value of 52%, 28%, and 31%. The three disclosure items have a mode value of 1, so it can be concluded that company disclosures related to initiatives to provide efficient or renewable energy, accounting for waste and pollution, and fines for non-compliance are at a very weak level or tend not to be reported in reports. company annual.

Green accounting from corporate social responsibility perspective in Indonesia

Corporate Social Responsibility according to *World Business Council on Sustainable Development* (WBCSD) is a commitment from the company to implement ethical behavior and contribute to sustainable economic development (Effendi, 2016). Corporate Social Responsibility is a form of company legitimacy towards the surrounding environment to get a positive image of the company.

Legitimacy theory states that there is a social contract between the company and the community around the company (Ghozali, 2020). Several company activities reflect the implementation of green accounting in a company, namely: (1) Use of environmentally friendly raw materials; (2) There is waste management that does not cause environmental pollution or damage; (3) Existence Corporate Social Responsibility which is a form of company concern for the surrounding environment (Lusiana et al., 2021). Companies must strengthen the implementation of green accounting which is a form of corporate social responsibility that is attached to performance (Dhar et al., 2022). The higher the quality of disclosure, the better the performance of corporate social responsibility.

There are high expectations from the community for companies to incur expenses to repair or prevent physical damage to ensure health and safety around the production and waste disposal sites (Ghozali, 2020). This correlates with the relationship between the implementation of green accounting and Corporate Social Responsibility.

The results of this study state that most companies are still relatively low in disclosing environmental information with the results of a mode value of 1 and 2. This proves that the companies that are the research sample are still relatively weak in their efforts to disclose environmental information. The quality of disclosure of social responsibility information can positively regulate the implementation of green accounting and strengthen corporate sustainability (Dhar et al., 2022).

CONCLUSION

Based on the research results, it can be concluded that of the 12 items of disclosure of environmental information, there are only 3 items of disclosure that have a value of mode 5, namely related to (1) Information on steps to moderate environmental impacts of product and services; (2) Information on commitments to reduce reliance on renewable and non-renewable resources; (3) Information on waste discharge and recycling. Each of these items has an average value of 77%, 67%, and 61%.

In addition, it is also known that three disclosure items have a value of mode 1, which is related to (1) Initiatives to provide energy-efficient or renewable energy, (2) Accounting for waste and pollution from operations, and (3) Significant fines and non monitary sanctions for non-compliance. Each of these items has an average value of 52%, 28%, and 21%.

The results of this research are expected to contribute to the development of knowledge and policy directions related to the implementation of Corporate Social Responsibility, especially green accounting in Indonesia.

REFERENCES

Journal article

Apriliana, E. (2019). Pengaruh Tipe Industri, Kinerja Lingkungan, Dan Profitabilitas Terhadap Carbon Emission Disclosure. *Widyakala Journal*, *6*(1), 84. https://doi.org/10.36262/widyakala.v6i1.149

Dhar, B. K., Sarkar, S. M., & Ayittey, F. K. (2022). Impact of social responsibility disclosure between implementation of green accounting and sustainable development: A study on heavily polluting companies in Bangladesh. *Corporate Social Responsibility and Environmental Management*, *29*(1), 71–78. https://doi.org/10.1002/csr.2174

Dowling, J., & Pfeffer, J. (1975). Pacific Sociological Association Organizational Legitimacy: Social Values and Organizational Behavior. *Source: The Pacific Sociological Review*, *18*(1), 122–136.

Effendi, M. A. (2016). *The Power of Good Corporate Governance: Teori dan Implementasi*. Salemba Empat.

Faizah, B. S. Q. (2020). Penerapan Green Accounting terhadap Kinerja Keuangan. *Jurnal Riset Akuntansi Kontemporer*, *12*(2), 94–99. https://doi.org/10.23969/jrak.v12i2.2779

Freeman, R. E. (2004). The Stakeholder Approach Revisited. *Zeitschrift Für Wirtschafts- Und Unternehmensethik*, *5*(3), 228–241. https://doi.org/10.5771/1439-880x-2004-3-228

Ghozali, I. (2020). *25 Grand Theory*. Yoga Pratama.

Lako, A. (2018). *Akuntansi Hijau (Isu, Teori, dan Aplikasi)*. Salemba Empat.

Lestari, R., Nadira, F. A., Nurleli, & Helliana. (2019). Pengaruh Penerapan Green Accounting Terhadap Tingkat Profitabilitas Perusahaan (Pada Perusahaan Manufaktur Sektor Industri Barang Konsumsi di BEI Tahun 2015-2017). *Kajian Akuntansi*, *20*(2), 124–131. https://elearning2.unisba.ac.id/index.php/kajian_akuntansi/article/view/5990

Louie, J., Ahmed, K., & Ji, X. D. (2019). Voluntary disclosures practices of family firms in Australia. *Accounting Research Journal*, *32*(2), 273–294. https://doi.org/10.1108/ARJ-04-2016-0042

Lusiana, M., Haat, M. H. C., Saputra, J., Yusliza, M. Y., Muhammad, Z., & Bon, A. T. (2021). A review of green accounting, corporate social responsibility disclosure, financial performance and firm value literature. *Proceedings of the International Conference on Industrial Engineering and Operations Management*, 5622–5640.

Maama, H., & Appiah, K. O. (2019). Green accounting practices: lesson from an emerging economy. *Qualitative Research in Financial Markets*, *11*(4), 456–478. https://doi.org/10.1108/QRFM-02-2017-0013

Modell, S. (2014). The societal relevance of management accounting: An introduction to the special issue. *Accounting and Business Research*, *44*(2), 83–103. https://doi.org/10.1080/00014788.2014.882741

Nicholls, J. A. (2020). Integrating financial, social and environmental accounting. *Sustainability Accounting, Management and Policy Journal*, *11*(4), 745–769. https://doi.org/10.1108/SAMPJ-01-2019-0030

Rosaline, V. D., Wuryani, E., Ekonomi, F., Surabaya, U. N., & Surabaya, K. (2020). Pengaruh Penerapan Green Accounting dan Environmental Performance Terhadap Economic Performance. *Jurnal Riset Akuntansi Dan Keuangan*, *8*(3), 569–578. https://doi.org/10.17509/jrak.v8i3.26158

Rounaghi, M. M. (2019). Economic analysis of using green accounting and environmental accounting to identify environmental costs and sustainability indicators. *International Journal of Ethics and Systems*, *35*(4), 504–512. https://doi.org/10.1108/IJOES-03-2019-0056

Sapulette, S. G., & Limba, F. B. (2021). Pengaruh Penerapan Green Accounting, Dan Kinerja Lingkungan Terhadap Kinerja Keuangan Pada Perusahaan Manufaktur Di Bursa Efek Indonesia. *Jurnal Akun Nabelo: Jurnal Akuntansi Netral, Akuntabel, Objektiff*, *2*(2), 31–43.

Senn, J., & Giordano-Spring, S. (2020). The limits of environmental accounting disclosure: enforcement of regulations, standards and interpretative strategies. *Accounting, Auditing and Accountability Journal*, *33*(6), 1367–1393. https://doi.org/10.1108/AAAJ-04-2018-3461

Setiadi, I., & Agustina, Y. (2020). Pengungkapan Lingkungan, Profitabilitas dan Nilai Perusahaan. *Kompartemen: Jurnal Ilmiah Akuntansi*, *17*(2), 198–207. https://doi.org/10.30595/kompartemen.v17i2.5807

Wahyuningsih, I., & Meiranto, W. (2022). Pengaruh Good Corporate Governance dan Regulasi Pemerintah terhadap Pengungkapan Informasi Akuntansi Lingkungan. *Diponegoro Journal of …*, *10*, 1–12. https://ejournal3.undip.ac.id/index.php/accou nting/article/view/32966

Wicaksono, A. P., Amelia, R. W., Zulvina, D., & Rachmadani, W. S. (2021). Membangun Citra Positif Perusahaan Melalui Pengungkapan Lingkungan. *Jurnal Akuntansi Multiparadigma*, *12*(1), 27–45. https://doi.org/10.21776/ub.jamal.2021.12.1.02

Widyawati, & Hardiningsih, P. (2022). Apakah Kinerja Lingkungan Mempengaruhi Pengungkapan Lingkungan? *Jurnal Akuntansi Dan Pajak*, *22*(2), 911–925.

Entire book

Ghozali, Imam. 2020. *25 Grand Theory*. Semarang: Yoga Pratama.

Lako, Andreas. 2018. *Akuntansi Hijau (Isu, Teori, Dan Aplikasi)*. Jakarta: Salemba Empat.