

Praktik Green Accounting Pada Perusahaan Di Indonesia GREEN ACCOUNTING PRACTICES IN INDONESIAN COMPANIES

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#### **ARTICLE INFORMATION**

### ABSTRAK

Article history: Received date: March, 2024 Accepted: June, 2024 Available online: June, 2024 Penelitian ini bertujuan menganalisis praktik akuntansi hijau di Indonesia. Praktik akuntansi lingkungan dinilai menggunakan *Global Reporting Initiative* (GRI). Sampel penelitian terdiri dari perusahaan-perusahaan di Bursa Efek Indonesia yang menghasilkan laporan keberlanjutan tahun 2020 hingga 2022. Analisis deskriptif menggambarkan wawasan praktik akuntansi ramah lingkungan di Indonesia, sedangkan uji ANOVA digunakan untuk menguji perbedaan praktik akuntansi ramah lingkungan berdasarkan jenis industri dan tahun studi. Hasil penelitian menunjukkan bahwa pengungkapan lingkungan di Indonesia masih sangat rendah. Perusahaan-perusahaan mengalokasikan pengeluaran minimal untuk masalah lingkungan. Hasil uji beda menunjukkan bahwa tidak terdapat perbedaan yang signifikan pada biaya lingkungan lingkungan berdasarkan jenis industri, tidak terdapat perbedaan yang signifikan pada pengungkapan lingkungan berdasarkan jenis industri, tidak terdapat perbedaan yang signifikan pada pengungkapan lingkungan berdasarkan jenis industri, tidak terdapat perbedaan yang signifikan pada pengungkapan lingkungan berdasarkan jenis industri, tidak terdapat perbedaan yang signifikan pada pengungkapan lingkungan berdasarkan tahun studi.

Kata kunci: Akuntansi Hijau; Biaya Lingkungan; Pengungkapan Lingkungan

### ABSTRACT

This research aims to analyze green accounting practices in Indonesia. Environmentally accounting practices are assessed using the Global Reporting Initiative (GRI). The research sample consists of companies on the Indonesia Stock Exchange that produce sustainability reports from 2020 to 2022. The descriptive analysis describes insights into environmentally friendly accounting practices in Indonesia, while the ANOVA test is used to test the differences in environmentally friendly accounting practices based on industry types and years of study. The results show that environmental disclosure in Indonesia is still deficient. The companies allocate minimal expenditure on environmental costs based on industry type, there is a significant difference in environmental disclosure based on industry type, there is no significant difference in environmental costs based on industry type, there is no significant difference in environmental costs based on industry type, there is no significant difference in environmental costs based on industry type, there is no significant difference in environmental costs based on industry type, there is no significant difference in environmental costs based on industry type, there is no significant difference in environmental costs based on industry type, there is no significant difference in environmental costs based on industry type.

Keywords: Green Accounting; Environmental Costs; Environmental Disclosure

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## INTRODUCTION

The issue of environmental damage, its causes, and its impact on human life both in the present and in the future has led the entire community to realize the importance of preserving the environment. Industrial activities in development are expected to improve the standard of living for the Indonesian nation. Industrial activities have both positive and negative effects. The positive impacts of industrial activities include producing goods and services, creating job opportunities, and enhancing the quality of life for the community. On the other hand, the negative impacts of industrial activities are environmental pollution, which leads to the depletion of natural resources and a decline in quality of life (Supraptini, 2012).

Environmental degradation cases occurring in various parts of the world are caused by companies that neglect pollution management. Table 1 presents an example of environmental damage cases across the nations.

# **Table 1.** Environmental Damage Cases Acrossthe Nations

Country	Tragedy			
Japan	Japan has a Minamata tragedy.			
	This tragedy happened because			
	the industry threw away the			
	waste metal weight/mercury into			
	the sea and caused 60,000			
	people to be affected by the			
	disease minamata (disorder			
	system nerves center).			
India	India has a Bhopal tragedy. It			
	happens due to industry			
	pesticides experiencing toxic gas			
	leaks causing 15,000 people to			
	die.			
The	The Soviet Union has the			

Country	Tragedy		
Soviet	Chernobyl tragedy which was an		
Union	accident reactor nuclear and		
	caused 210 people to die.		
Nigeria	Nigeria has a Shell tragedy. This		
	tragedy happened when there		
	was a spill of oil from Royal Dutch		
	Shell oil company because cargo		
	collided and caused dead fish in		
	the Bodo Waters area of		
	Southern Nigeria.		
Indonesia	Indonesia has Lapindo mudflow		
	caused by Banjar Panji I well		
	drilling by Lapindo Brantas		
	company which caused 11		
	villages in 3 sub-districts in		
	Sidoarjo to be drowned.		

Based on Table 1, environmental damage cases occurred around the world such as in Japan, India, the Soviet Union, Nigeria, and Indonesia. Those tragedies happened due to ignorance company in management pollution so that creatures life around you become victim. Furthermore, more details about environmental damage cases due to hazardous and toxic waste (*limbah bahan berbahaya dan beracun-LB3*) in Indonesia are presented in Table 2.

**Table 2.** Environmental Damage Cases Acrossthe Nations

Con	npany	Cases		
NTS	Bekasi	NTS Bekasi Inc. is engaged in		
Inc.		the field of processing		
		services waste. The case		
		that involves this company is		
		about dumping LB3 in a		
		place without permission.		
		The consequence is the soil		
		that contaminated with oil		
		sludge, bottom ash, and		

Company	Cases	Company	Cases
	metal heavy (hexavalent,	· · · · · · · · · · · · · · · · · · ·	company. This company is
	chromium, mercury, arsenic,		involved in dumping the
	barium, copper, lead, nickel,		liquid LB3 in the Citarum
	and zinc) causes soil		tributary without processing
	nutrients lost, disturbing the		earlier. This action caused a
	land ecosystem, and the		damaging environmental
	groundwater cannot be		ecosystem. Water waste
	utilized, if happen		with a temperature of above
	evaporation, this can		50 degrees Celsius is thrown
	produce dangerous gases.		away, river biota dies, and
Green	This company is engaged in		people around the location
Environmental	the field of processing		complain of skin disease
Mojokerto	services waste. This		when they have contact
Inc.	company disposes of liquid		with the river.
	and solid LB3 into rivers	Novapharin	This is a pharmaceutical
	without prior processing.	Gresik Inc.	company which taken action
	The consequences are		in the disposal of liquid LB3
	strong scent, polluting the		in the gutter which flows in
	banks of the Marmoyo		settlement inhabitants. This
	River, Kembangan Hamlet,		action causes a strong odor,
	Mojojajar Village, Kemlagi		air pollution, and shortness
	District, Mojokerto Regency,		of breath for local residents,
	and dangerous for humans		and if it comes into contact
	and the surrounding		with the skin, it causes
	ecosystem.		irritation.
Daya Pratama	This company is a textile	Inka (Persero)	This is a railway
Lestari	company. The company was	Inc.	manufacturing company.
	involved in a liquid LB3		This company found that the
	disposal case in a place		LB3 management does not
	without permission. This		fulfill the standard/criteria.
	action pollutes the Citarum		Therefore, workers
	River. The LB3 content is		experience complaints of
	absorbed by soil and water,		health problems such as
	resulting in rivers becoming		headaches (4 workers), skin
	cloudy, smelling bad, and		irritation (3 workers),
	the surrounding ecosystem		shortness of breath (1
	being disturbed (Redaksi,		worker), and nausea (2
	2020).		workers) (Ichtiakhiri &
Combifar Inc.	This is a pharmaceutical		Sudarmaji, 2015)

Table 2 shows the environmental damage caused by companies in Indonesia. It indicates that waste management does not comply with procedures/standards. Waste which not managed properly will damage the environment. Every business actor in Indonesia is obliged to carry out environmental responsibility. The damage that is getting worse and endangering humanity must be addressed immediately.

Company participation in environmental activities certainly incurs costs, therefore all operational and management activities must be accounted for to all stakeholders and disclosed in the annual report (Lako, 2018). Therefore, green accounting or environmental accounting was born. Green or environmental accounting is accounting in which there is identification, measurement, and allocation of environmental costs, where these environmental costs are integrated into business decision-making, and then communicated to stakeholders (Guan et al., 2009). Companies tend to pay less attention to environmental problems and only prioritize profits without paying attention to third parties, namely stakeholders.

Previous research studies in the understanding of green accounting (Ahmad & Gao, 2004; Bayoud & Kavanagh, 2012; Mashat et al., 2005). Furthermore, green accounting can be measured by using environmental costs. Lolo et al. (2020) studied how green accounting works in Indonesian companies as an innovation to reduce environmental pollution.

This research aims to find out the green accounting practices in Indonesia. This research focuses on green accounting practices using environmental cost measurements compared to the net profit generated, and environmental disclosure using the Global Reporting Initiatives 4 reference in Indonesian companies. Based on the Indonesia Stock Exchange, companies are divided into 9 subsectors: agriculture, mining, basic and chemical industries, various industries, consumer goods industry, real estate property and building construction, utility and transportation infrastructure, finance, trade, and investment.

This research uses stakeholder theory. Stakeholder theory was born with the assumption that ethics is part of business activities (Freeman et al., 2004). Business organizations should have ethics in their activities. Organizational ethics is realized by building good communication and relationships with stakeholders. The ethics built by the company will create value for stakeholders. Company activities that are based on ethics require the preparation of programs and standards of behavior. Without programs and standards of behavior, companies have difficulty maintaining good relationships with all their stakeholders (Maignan & Ferrell, 2004). The concept of stakeholder theory then developed even further. Clarkson (1995) defined stakeholders as individuals or groups who have rights, interests, and knowledge of activities that occur within the company. Stakeholders have rights, interests, and knowledge of activities to make decisions, so companies need provide information. In this context, to stakeholders also need information about company activities related to the environment (green accounting), such as environmental disclosure and environmental costs.

Lako (2018) defines green accounting as the process of recognizing, measuring value, recording, summarizing, reporting, and disclosing information regarding objects, transactions, events, or the impact of a company's economic, social, and environmental activities on society, environment, and the company itself in reporting accounting information. Green accounting can provides relevant information to users of accounting information in the decision-making process. The aim of implementing green accounting is to reduce the negative effects of operational activities that impact the environment by disclosing environmental costs (Sunarmin, 2020).

Environmental disclosure is the disclosure of information related to the environment that is disclosed in the company's annual report (Suratno et al., 2007). By disclosing the corporate social responsibility (CSR) (as one of the information includes information about environmental activities), it is hoped that the company will be able to meet the information needs needed as well as support from stakeholders so that it can support the company in achieving its goals which is stability and going concern (Rusdianto, 2013). Environmental disclosure is a process of communicating the social and environmental impacts of an organization's activities to specific groups and on society as a whole (Sembiring, 2005). Nowadays, the company frequently discloses its environmental actions in the sustainability report. The Global Reporting Initiative defines a sustainability report as a practice for measuring and disclosing company activities, as a responsibility to internal and external stakeholders regarding performance organizations in achieving sustainable global economic goals (GRI, 2013).

Environmental costs are costs incurred due to the low environmental quality, as a result of the production process carried out by the company. Meanwhile, according to Guan et al. (2009), environmental costs can be called environmental quality costs. Similar to quality costs, environmental costs are costs that occur because environmental quality is poor or poor environmental quality may occur (Guan et al., 2009). Environmental costs are also defined as impacts, both monetary and non-monetary, that occur as a result of company activities that affect environmental quality (Ikhsan, 2008).

# **RESEARCH METHODS**

The population of this research is companies listed on the Indonesia Stock Exchange for the period 2020 – 2022, consisting of companies in the health, raw materials, finance, transportation & logistics, technology, non-cyclical consumers, various industries, energy, cyclical consumers, infrastructure, property, real estate, and plantations. This research uses purposive sampling as the sampling method. Based on the criteria of companies that published sustainability reports during the period 2020 – 2022, there were 135 companies for 3 years with a total of 405 observations. This research uses secondary data. The secondary data was obtained from annual reports of companies listed on the Indonesia Stock Exchange for the period 2020 – 2022.

The variable studied in this research is green accounting. Green accounting is the implementation of accounting as a form of company commitment to the impact of operational activities bv including environmental costs in the company's expenses (Indrawati & Rini, 2018). This research uses two measurements of green accounting practices. Those are environmental disclosure (34 items) and environmental cost. The environmental disclosure is measured using the disclosure index based on GRI standards (items disclosed by the company divided by a maximum score

which is 34). Furthermore, the environmental cost is measured using the proportion of environmental management costs to net profit).

This research uses an ANOVA test to analyze the differences in green accounting practices (environmental disclosure and environmental cost) based on the industry types and years of study. The hypotheses testing is based on the significant value (sig.). The hypothesis is supported if the sig. <  $\alpha$  0.05. Furthermore, if the sig. >  $\alpha$  0.05, thus the hypothesis is not supported.

### **RESULTS AND DISCUSSION**

This research aims to analyze the green accounting practices in Indonesia. The statistics descriptive of this research describe the minimum, maximum, mean, and standard deviation value of the environmental disclosure and the percentage of environmental cost from 2020 – 2022. This analysis consists of 405 observations. The result is presented in Table 3 as follows.

Table 3.	The	Descriptive	Statistic
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Variables	Min	Max	Mean	Std.
				Dev.
Environmental	0.000	0.920	0.321	0.199
Disclosure				
Environmental	0.000	0.814	0.067	0.143
Costs				

Source: Data processed, 2024

Based on Table 3, it can seen that the average value of the environmental disclosure is 0.321 (32.1%) with a standard deviation of 0.199. The environmental disclosure has a minimum value of 0.000 with a maximum value of 0.920. If the environmental disclosure is close to 1 (100%), it means that 34 items of GRI environmental disclosure are disclosed by the

The descriptive company. statistic of environmental disclosure indicates that there are companies which not disclose their environmental information (Polychem Indonesia, Alkindo Naratama, Duta Pertiwi Nusantara, Darya Varia Laboratories, Pyridam Farma, Kedoya Adyaraya, Soho Global Health, Puradelta Lestari). Meanwhile, the maximum value indicates that there is a company that discloses 92% of the GRI items (ABM Investama). Furthermore, on average, the company discloses environmental information at the 32.1% level. This implies that the level of environmental disclosure in Indonesia is still low.

The environmental cost has an average value of 0.067 (6.7%) with a standard deviation of 0.143. The environmental cost has a minimum value of 0.000 and a maximum value of 0.814. If the environmental cost is close to 1 (100%), it means that the cost disbursement related to environmental management is the same as the company's net profit. The minimum value indicates that there is Indonesian companies that have a very low environmental cost (BPD West Java and Banten). Furthermore, the company with the biggest environmental cost is Bank Amar Indonesia.

The information about environmental disclosure for each period informs the difference in environmental disclosure action for the years 2020, 2021, and 2022. The detailed information is presented in Figure 1.



Figure 1. Environmental Disclosure by Year

Based on Figure 1, the average environmental disclosure during 2020 – 2022 experienced an increase. In 2020, companies disclosed their environmental information around 0.270 (27%). It experienced an increase in 2021 by 4.9% to 0.329 (32.9%), and a continuous increase in 2022 by 5.4% to 0.373 (37.3%). Figure 1 shows an increase from year to year although the increase is not a lot, meaning that the company's awareness of disclosing environmental aspects in the company reports is increasing.

The environmental disclosure trend presented in Figure 1 does not happen in the environmental cost aspect. The trend of environmental cost aspect for the year 2020 – 2022 is presented in Figure 2.





Figure 2 shows that during 2020 – 2022, the average company's spending on the environmental aspect compared to the company's net profit experienced fluctuations. In 2020, the average environmental cost is 0.069 (6.9%). Those values experienced a decrease in 2021 to 0.066 (6.6%) but experienced an increase in 2022 to 0.068 (6.8%). Figure 2 shows that even though the environmental cost experienced a fluctuation during 2020 – 2022, the disbursement of companies on the environmental aspect is still low.

The analysis continues with different tests. The different tests in this research aim to examine if there is a significant difference in environmental disclosure and environmental cost among the industries and years of study. The result of different tests based on the type of industry is presented in Table 4.

**Table 4.** The Different Test Results of GreenAccounting Based on the Type of Industry

Variables	Sig.	Decision
Environmental	0.000	Supported
Disclosure		
Environmental	0.151	Not Supported
Costs		
Source: Data proce		

Based on Table 4, it can be seen that environmental disclosure has a sig. value of 0.000. It is <  $\alpha$  0.05. It implies that there is a significant difference in environmental disclosure among industries. Furthermore, environmental costs have a sig. value of 0.151 >  $\alpha$  0.05. It indicates that there is no significant difference in environmental costs among industries.

The second tests examine if there is a significant difference in environmental disclosure and environmental cost based on the year of study. The result of this test is presented in Table 5.

Variables	Sig.	Decision		
Environmental	0.000	Supported		
Disclosure				
Environmental	0.929	Not Supported		
Costs				

**Table 5.** The Different Test Results of GreenAccounting Based on the Year of Study

Source: Data processed, 2024

Based on Table 5, environmental disclosure has a sig. value of  $0.000 < \alpha 0.05$ . Therefore, it indicates that there is a significant difference in environmental disclosure based on the year of study. The highest average of environmental disclosure happened in 2022 which is almost the end of Covid 19. The disclosure rose to 37.33% from the previous year (In 2021 the disclosure was just 31.91% and in 2020 the disclosure was just 27.02%).

The environmental costs have sig. value of 0.929 >  $\alpha$  0.05. It implies that there is no significant difference in environmental costs during the year 2020 – 2022.

### CONCLUSION

This research aims to analyze green accounting practices in Indonesia. The result of this research shows that environmental disclosure by Indonesian companies is still very low. The disbursement of environmental costs by Indonesian companies is also still limited. The different test result shows that there is a significant difference environmental in disclosure among industries. Meanwhile, there is no significant difference in environmental costs among industries. Based on the year of study, this research finds that there is a difference significant in environmental disclosure during the year of study. Meanwhile, there significant difference is no in environmental costs during the year of study.

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