WASTE DISCLOSURE TO ENERGY SECTOR COMPANIES

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Abstract
Environmental problems still occur around, the main cause is company waste. The study was conducted with the aim of examining the effect of profitability, leverage and company size on waste disclosure. The data used are secondary data with quantitative methods. The purposive sampling method was used to select samples and obtain as many as 104 data on energy sector companies listed on the Indonesia Stock Exchange in 2021 – 2022. The results obtained by researchers show that the variables of profitability and company size have a significant positive effect on waste disclosure. While leverage has a significant negative effect on waste disclosure.

Keywords: Profitability, Leverage, Company Size, Waste Disclosure

1. Introduction
The adverse impacts caused to society occur today to affect the surrounding such as pollution, waste, security, and labor problems caused by various fields of the company, one of which is the use of natural resources (Hilmi & Rinanda, 2020; Pangarso et al., 2016). Environmental problems make responses from many parties ranging from consumers, Stakeholders, the government to parties involved on a large and small scale in the environment to solve problems that cause environmental damage (Fitriyani & Mutmainah, 2012; Yanti et al., 2021). This phenomenon has led to new demands about the importance of implementing corporate social responsibility (CSR) (Claydon, 2011). Corporate Social Responsibility (CSR) is a design that shows the company's responsibility to Stakeholders, governments, consumers, competitors and environmentalists (Bhardwaj et al., 2018; Hariana & Davianti, 2020; Ancient & Candradewi, 2019). The implementation of CSR is carried out to minimize negative impacts that occur on social and environment.

There are several regulations in Indonesia that regulate environmental disclosure and social responsibility, including Law Number 40 of 2007 concerning Limited Liability Companies and Government Regulation Number 47 of 2012 concerning Social and Environmental Responsibility of Limited Liability Companies. To fulfill the wishes of the stakeholders, nowadays companies are not only doing corporate interests but trying to implement CSR (Shafirah et al., 2022). Economic success will make companies to carry out CSR disclosures because by increasing the impression on the company can make the company's performance increase (Aminah et al., 2022; Chen & Lee, 2017). On the other hand, the existence of companies is needed for human survival, but this activity is also a source of environmental pollution, so it is necessary to protect and manage the environment for the creation of community welfare (Sujarweni et al., 2023; Sulistyono, 2015).

Government Regulation Number 22 of 2021 concerning the Implementation of Environmental Protection and Management explained that it is necessary to carry out management related to B3 waste by carrying out activities such as reduction, storage,
collection, transportation, utilization, management, or landfilling. In addition, companies that run energy-related businesses such as oil, gas, coal and other energy needs can reduce the environmental quality of Hazardous and Toxic (B3) waste and have the potential to cause health problems, so the B3 waste management system must be owned by the company (Istiningrum, 2023; Sulistyono, 2015). Waste management must be carried out as a form of the company's concern for the environment (Yong et al., 2019).

Environmental pollution cases have occurred in Teluknaga District, Tangerang Regency, Banten Province in 2023. Environmental pollution carried out in the form of illegal burning of electronic B3 waste. It was declared illegal due to arson Printed Circuit Board (PCB) is carried out without a Business License on open land and is not equipped with air pollution control equipment (Saiyar, 2023). Another case has occurred in Dompu Regency, West Nusa Tenggara (NTB). Disposal of medical waste in the form of gloves, infusion bottles, used syringes, medicine bottles to masks to the landfill (TPA) has been carried out by Dompu Hospital. Medical waste is classified as B3 waste because it can spread disease and cause health problems (Nickyrawi, 2021).

Source: Data processed, 2023

**Figure 1.** 2022 Waste Disclosure Index

Based on the results of the survey in figure 1 conducted on energy sector companies listed on the IDX for the 2021-2022 period, it can be concluded that waste disclosure carried out still tends to be low. PT. Adaro Minerals Indonesia Tbk and PT Energi Mega Persada only disclosed 0.2% of the total items in the Standard Global Reporting Initiative (GRI). Research that has been conducted by (Wulansari & Adhariani, 2022), said that companies in Indonesia that make waste disclosures are still very low.

Financial Services Authority Regulation Number 51/POJK.03/2017 concerning the Application of Sustainable Finance for Financial Service Institutions, Issuers, and Public Companies, mentioning that Sustainability Report (Sustainability Report) needs to be notified so that the public knows information related to financial, economic, social and environmental performance. GRI Standards (Global Reporting Initiative Sustainability reporting is an organization's way of publicly reporting its social, economic, and/or environmental impacts, because it is a form of negative or positive contribution to the Sustainable Development Goals. (Belkhir et al., 2017; Davianti & Princess, 2022), mentioning that the reporting framework published by Global Reporting Initiative (GRI) is to achieve Sustainability Report which is complete, informative, relevant, and can be juxtaposed throughout the company. GRI Standard 306: Waste 2020 which contains mandatory disclosures for companies that have decided waste to be a material topic. Information shared related to management, business relationships, policies, impacts, as well as prevention methods and actions taken by stakeholders contained in GRI 3 : Material Topics 2021 (GRI 306, 2020).
Waste management, especially B3 waste, is very important to do because the impact caused by waste can damage the ecosystem and health for survival (Nursabrina et al., 2021). So the researcher took the topic related to the disclosure of waste that occurs in Indonesia. Researchers take profitability, Leverage, and company size as an independent variable as almost no one discusses. The purpose of this study is to examine the effect of profitability, Leverage, and the company's size on waste disclosure that occurs in Indonesia, especially in energy sector companies listed on the IDX in 2021 – 2022.

2. Theoretical Background

2.1 Stakeholder Theory

Theory Stakeholders is an approach that links the company with its stakeholders (Aulia & Agustina, 2015). According to Ghozali & Chariri (2007) deep (Septiani &; Mutmainah, 2013; Yudhani & Listianto, 2021), said that in theory Stakeholders The company is obliged to provide benefits for Stakeholders his like a consumer, Supplier, creditors, shareholders, analysts, governments, communities and others because the company is not an entity that operates only for its own benefit. Assist company management in minimizing losses that may arise for stakeholders and increase the earning of value as a result of the activities that have been carried out which is the main objective of the theory stakeholders (Pangarso et al., 2016). Theory Stakeholders also explained that by compiling Sustainability Report, the company can maintain good relations with stakeholders/stakeholders- his from making every real effort (Weber et al., 2008). The company is expected to provide complete information related to the activities carried out by the company and its influence on social and environmental conditions, so that after implementation Sustainability Report The company can then maintain the trust of Stakeholders (Yudhani &; Listianto, 2021). Stakeholders will provide full support to the company to disclose social and environmental responsibility, so that the company's demands in improving performance and profits can be achieved (Amanda Oktariyani &; Rachmaawati, 2021).

2.2 Profitability Against Waste Disclosure

Profitability is used as a consideration in the disclosure of information from profits generated through the company's financial performance (Ayu et al., 2017; Oshiole et al., 2020). Profitability also has a good management of management indicators, so management will disclose reports of increased profitability that occur in the company (Septiani &; Mutmainah, 2013). The high level of profitability in companies that have sufficient funds is used to inform information related to the environment because they have sufficient resources, compared to companies that have low profitability (Lady Junita &; Yulianto, 2018; Nugraha &; Juliarto, 2015). Research conducted by Aulia &; Agustina (2015), Hendrianto et al., (2022), Hilmi &; Rinanda (2020), said that profitability has a positive effect on environmental disclosure. Based on the explanation above, the researcher draws the following hypothesis:

H1: Profitability has a positive effect on waste disclosure

2.3 Leverage Against Waste Disclosure

Level Leverage The high will make the company charge the total debt to the company against the creditors even greater (S. P. Dewi &; Keni, 2013; Sekarini &; Setiadi, 2022). Theory Stakeholders said if more environmental disclosures would be made if it had a level of Leverage which is high, because it is to fulfill its responsibilities to stakeholders, especially creditors (Maulia &; Yanto, 2020). High leverage also tends to disclose
environmental information due to minimizing the negative impact that investors cause (Baalouch et al., 2019). Research conducted by Oktariyani & Meutia (2016), Chandok & Singh (2017), N. A. Dewi (2019), Ismail et al., (2018), Chiu et al., (2020) says that Leverage Positively affect environmental disclosure. Based on the explanation above, the researcher draws the following hypothesis:

H2: Leverage has a positive effect on waste disclosure

2.4 Company Size of Environmental Disclosure

The social and political pressure experienced by the company resulted in the company attracting attention Stakeholders and society. This makes large-scale companies disclose more information than small-scale companies (Ardi & Yulianto, 2020; Haninun & Nurdianawansyah, 2014). Therefore, the larger the size of the company, the greater the profitability of the company to make environmental disclosures (Terry & Asrori, 2021). Research conducted by Lady Junita & Yulianto (2018), Utami et al., (2022), van de Burgwal & Vieira (2014), saying that the size of the company has a positive effect on environmental disclosures. Based on the explanation above, the researcher draws the following hypothesis:

H3: Company size has a positive effect on waste disclosure

2.5 Thinking Framework

![Figure 2. Thinking Framework](image)

3. Methods

3.1 Research Methods and Samples

The research method used is a quantitative method with secondary data. The population is energy sector companies listed on the Indonesia Stock Exchange in 2021 – 2022. Sample selection will use the method purposive sampling, which is a sampling / data method selected through selection from criteria set by researchers (Hasanah & Rudyanto, 2020; Sekaran & Bougie, 2016).

Table 1. Sample Selection Criteria

<table>
<thead>
<tr>
<th>No.</th>
<th>Information</th>
<th>Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.</td>
<td>Energy sector companies that do not publish Annual Reports in 2021 – 2022.</td>
<td>(28)</td>
</tr>
<tr>
<td>3.</td>
<td>Energy sector companies that did not publish a Sustainability Report in 2021 – 2022.</td>
<td>(34)</td>
</tr>
<tr>
<td></td>
<td>Total samples to be used as research data</td>
<td>104</td>
</tr>
</tbody>
</table>

Source: Data processed, 2023
### Table 2. Research Variables and Operational Definitions

<table>
<thead>
<tr>
<th>Research Variables</th>
<th>Information</th>
<th>Measurement Tools</th>
<th>Researchers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waste Disclosure</td>
<td>Waste disclosure is a company that conducts reporting related to B3 and non-B3 waste.</td>
<td>Waste Disclosure = (Total score obtained) / (Total score desired)</td>
<td>(Clarkson et al., 2008; Suhardjanto &amp; Miranti, 2009; Sujarweni &amp; Retnani, 2020)</td>
</tr>
<tr>
<td>Profitability</td>
<td>ROA is used to look at the extent to which a company makes a profit from the number of assets owned.</td>
<td>ROA = (Profit After Tax) / (Total Assets)</td>
<td>(Mandagie et al., 2022)</td>
</tr>
<tr>
<td>Leverage</td>
<td>DER is used to assess the extent to which the debt owned by a company can be covered with capital.</td>
<td>DER = (Total Liabilities) / (Total Equity)</td>
<td>(Irmayanti &amp; Neem, 2018)</td>
</tr>
<tr>
<td>Company Size</td>
<td>Measurement on the size of the company using total assets with the assessment that assets are more stable compared to other indicators.</td>
<td>SIZE = LN (Total Assets)</td>
<td>(Mnune &amp; Purbawangsa, 2019)</td>
</tr>
</tbody>
</table>

Source: Data processed, 2023

This study uses GRI Standard 306 as a reference in waste measurement. Here are some aspects contained in the GRI 306 Standard, namely:

#### Table 3. Waste Disclosure Items

<table>
<thead>
<tr>
<th>Category</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waste</td>
<td>306 – 1 Waste generation and significant waste-related impacts.</td>
</tr>
<tr>
<td></td>
<td>306 – 2 Management of significant waste-related impacts.</td>
</tr>
<tr>
<td></td>
<td>306 – 4 Waste diverted from landfill.</td>
</tr>
<tr>
<td></td>
<td>306 – 5 Waste sent to landfill.</td>
</tr>
</tbody>
</table>

Source: (GRI 306, 2020)

Multiple linear analysis is the model used in this study. To test the research hypothesis, the following formula is used:

\[
PLB = \alpha + \beta_1PRO + \beta_2LEV + \beta_3UKP + \varepsilon
\]

Information:
- PLB = Waste disclosure
- \( \alpha \) = Constant Value
- PLB = Waste Disclosure
- PRO = Profitability
4. Results and Discussion

4.1 Descriptive Statistics

Table 4. Descriptive Statistical Test Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRO</td>
<td>104</td>
<td>-0.46</td>
<td>0.67</td>
<td>0.1036</td>
<td>0.21961</td>
</tr>
<tr>
<td>LEV</td>
<td>104</td>
<td>-9.79</td>
<td>9.54</td>
<td>1.0988</td>
<td>2.17025</td>
</tr>
<tr>
<td>UKP</td>
<td>104</td>
<td>25.00</td>
<td>33.00</td>
<td>29.3173</td>
<td>1.68526</td>
</tr>
<tr>
<td>PLB</td>
<td>104</td>
<td>0.00</td>
<td>1.00</td>
<td>0.2942</td>
<td>0.38512</td>
</tr>
</tbody>
</table>

Source: Data processed, 2023

In table 4 it can be concluded that from the test results of 104 samples of companies, the profitability variable gets the result of the smallest value - 0.46 and the largest value 0.67. The standard deviation of 0.21961 is above the average of 0.1036, which means profitability has a high degree of data variation. The leverage variable gets the smallest value - 9.79 and the largest value 9.54. A standard deviation of 2.17025 and an average of 1.0988 indicate that the standard deviation has an above-average result, which means leverage has a high degree of data variation. The variable size of the company gets the smallest value of 25.00 and the largest value of 33.00. The result is a standard deviation of 1.68526 and an average of 29.3173. The average size of the company gets higher results compared to the results of standard deviation, meaning that the size of the company has a low level of data variation. The waste disclosure variable gets the largest value of 1.00 and the smallest value of 0.00. The average yield of 0.2942 and standard deviation of 0.38512 are above the average, meaning that waste disclosure has a high degree of data variation.

4.2 Classical Assumption Test

Figure 3. Normality Test Results

The test results above illustrate the p-plot in normal distributed research because a number of points in the image are scattered along the diagonal line and follow the diagonal line.
Table 5. Multicollinearity Test Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Tolerance</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRO</td>
<td>.829</td>
<td>1.206</td>
</tr>
<tr>
<td>LEV</td>
<td>.879</td>
<td>1.138</td>
</tr>
<tr>
<td>UKP</td>
<td>.887</td>
<td>1.128</td>
</tr>
</tbody>
</table>

Source: Data processed, 2023

Based on table 5 shows that the variables profitability, leverage, and company size have a tolerance value of ≥ 0.10 and a VIF value of ≤ 10, therefore the variable does not experience multicollinearity.

Figure 4. Heteroscedasticity Test Results

The scatterplot image shows that this study did not experience heteroscedasticity in the regression model because the points spread widely and randomly.

Table 6. Multiple Linear Analysis Test Results

<table>
<thead>
<tr>
<th>Type</th>
<th>Unstandardized Coefficients</th>
<th>Std. Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>-3.157</td>
<td>.555</td>
</tr>
<tr>
<td>PRO</td>
<td>.310</td>
<td>.152</td>
</tr>
<tr>
<td>LEV</td>
<td>-.033</td>
<td>.015</td>
</tr>
<tr>
<td>UKP</td>
<td>.118</td>
<td>.019</td>
</tr>
</tbody>
</table>

Source: Data processed, 2023

\[ PLB = -3.157 + 0.310(\text{PRO}) - 0.033(\text{LEV}) + 0.118(\text{UKP}) + \varepsilon \]

Multiple linear regression analysis was performed to see how much influence profitability (PRO), leverage (LEV), and company size (UKP) had on waste disclosure (PLB).

Table 7. Coefficient of Determination Test Results

<table>
<thead>
<tr>
<th>Type</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.613a</td>
<td>.375</td>
<td>.356</td>
<td>.30894</td>
</tr>
</tbody>
</table>

Source: Data processed, 2023

The test results in table 7 then the researchers concluded that 35.6% of profitability, leverage and company size simultaneously affect waste disclosure. While the other 64.4% were influenced by independent variables that were outside of this study.
Table 8. Test Results F (simultaneous)

<table>
<thead>
<tr>
<th>Type</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5.732</td>
<td>3</td>
<td>1.911</td>
<td>20.018</td>
<td>.000a</td>
</tr>
</tbody>
</table>

Source: Data processed, 2023

The F (simultaneous) test results obtained a sig value of 0.000 < 0.05. So that simultaneously the variables of profitability, leverage and company size have a significant effect on waste disclosure.

Table 9. Hypothesis Test Results

<table>
<thead>
<tr>
<th>Type</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>-3.157</td>
<td>.555</td>
<td>-5.686</td>
<td>.000</td>
</tr>
<tr>
<td>PRO</td>
<td>.310</td>
<td>.152</td>
<td>.177</td>
<td>2.034</td>
</tr>
<tr>
<td>LEV</td>
<td>-.033</td>
<td>.015</td>
<td>-.186</td>
<td>-2.209</td>
</tr>
<tr>
<td>UKP</td>
<td>.118</td>
<td>.019</td>
<td>.516</td>
<td>6.145</td>
</tr>
</tbody>
</table>

Source: Data processed, 2023

Hypothesis testing aims to determine the effect of variable X on variable Y. The hypothesis will be declared accepted if the level of significance < 0.05 (5%). Based on the hypothesis test in table 9, the results obtained are as follows:

1) The Effect of Profitability on Waste Disclosure

Based on the test on the profitability variable table on waste disclosure shows a t-count of 2.034 and a significance value of 0.045 < 0.05 which shows profitability has a positive influence on waste disclosure. This research proves that high profitability can result in good performance and fulfill its obligations on Stakeholders in disclosing information, especially related to waste. So that the first hypothesis that states the same as the test results can be accepted. The results of this study are in line with Aulia &; Agustina (2015), Hendrianto et al., (2022), Hilmi &; Rinanda (2020) That said, profitability positively affects environmental disclosure.

2) Effects of Leverage on Waste Disclosure

Based on variable hypothesis test Leverage The waste disclosure shows a t-count result of -2.209 and with a significant value of 0.029 < 0.05 which means Leverage has a significant influence of negative direction on waste disclosure. So the second hypothesis was rejected because it stated Leverage has a positive influence on waste disclosure. This research proves that disclosure is not influenced by the level of Leverage high or low because it will still disclose company information to fulfill its responsibilities to Stakeholders. The results of this study are in line with Angela &; Handoyo (2021), Ardi &; Yulianto (2020), Diantimala &; Amril (2018) because Leverage negatively affect environmental disclosure.

3) The Effect of Company Size on Waste Disclosure

The test results show a t-count of 6.145 and with a significant value of 0.000 < 0.05 which means that the third hypothesis that the size of the company has a significant positive effect on waste disclosure is accepted. Theory Stakeholders explained that the size of the company will tend to affect the disclosure of information related to the environment, one of which is waste. The results of this study are in line with Van de Burgwal & Vieira (2014), Lady Junita &; Yulianto (2018), Utami et al., (2022), which says the size of the company positively affects environmental disclosures.
5. Conclusion
Based on the results of a study that aims to examine how influential the variables of profitability, leverage and company size are on waste disclosure, it can be concluded that profitability and company size have a significant positive effect on waste disclosure. While leverage has a significant negative effect on waste disclosure. It is hoped that the results of this research test can make companies further improve the disclosure of environmental information, especially waste. Because waste not only damages the environment but also damages health. For the next researcher, it is expected to be able to add independent or dependent variables or add to the object of research to be sampled.

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