Market Response to Companies Sustainability Disclosure and Environmental Performance in Indonesia

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1. Introduction

A good company's market performance is judged by a high share price (Saputra & Martha, 2019). Stock prices change rapidly in one day, depending on supply and demand in the capital market (Big Alpha, 2020). These price movements can be seen in a stock index on the stock exchange of a country. Early in 2020, news of the Covid-19 virus attack made China's stock price index slump by 10%. Investors' concerns over the country's economic collapse due to the virus's rapid spread that resulted in more victims from the 2003 SARS outbreak caused shareholders to release their investments, resulting in a decline in stock prices (CNBC, 2020). Several affected countries such as the United States, Japan, and even Indonesia experienced the same (CNBC, 2020).

In the early 19th century, 1929 witnessed the biggest collapse of the US stock exchange in the history of the world's capital markets. Stock prices fell continuously for a month to touch their lowest value and have never returned to their starting point until today due to empty sales transactions carried out by speculators. The Dow Jones Industrial Average (DJIA) then corrected to fall by 17%. The sharp decline in the index made investors panic and started racing to release their shares en masse. The event known as "Black Thursday" or "Grey
Thursday" caused the Dow Jones to fall again by 13% (tekno.kompas.com, 2008).

The Indonesia Stock Exchange (IDX) once froze the shares of PT Bakrie & Brothers Tbk, which fell drastically to the level of Rp50 in 2018 due to debt due to investment failure (Sugianto, 2018). Furthermore, Freeport's share price in April 2018 had plunged to 14.51% after the management raised their hands to respond to environmental policies (Gunawan, 2018). The share price of plantation issuers also entered the red zone due to the weakening of crude palm oil prices (Simamora, 2019).

Poor market performance can jeopardize the company's business continuity. Companies with low market performance can reduce the confidence of investors and potential investors. Even if it continues to decline, its shares are forced to be frozen (suspended). This stock freeze resulted in issuers being unable to trade their shares for a while until the suspension was lifted again by the IDX (www.bigbrothersinvestment.com, 2020). The market performance of a company can be measured using the stock price on the stock exchange, which is formed through a market mechanism, one of which is influenced by an important factor, namely demand (Mankiw, 2016). If the demand for a stock increases, the stock market price will also increase, reflecting the company's upbeat assessment and potential investors (Sintyana & Artini, 2019).

Investors' interest in company shares can occur because of information disclosed. Investors can receive that, provided that the information in financial, annual, or sustainability reports shall suggest that the company has good prospects in the present and future. The phenomenon of disclosure of corporate reports, both financial and non-financial, shows the role of signaling theory (Sintyana & Artini, 2019). Information disclosed by a company as an internal party can signal investors as external parties (Spence, 1973). Gumanti (2009) explained that the signal is a signal that shall contain the power of information to change the assessment of the company's external parties. However, the signals provided and received are very diverse and can be positive or negative depending on investors' and potential investors' beliefs, perspectives, and assessments. Therefore, research on market performance still needs to be investigated further. Thus, the influencing factors can be adequately identified so that market performance can be better measured using suitable parameters.


Global issues related to the environment, such as global warming, eco-efficiency, and overexploitation of nature, are fundamental issues for companies running their business (Nurhidayat et al., 2020). An industry, in essence, always has a reciprocal relationship with the environment and society that cannot be separated (Rohelmy et al., 2015). Meanwhile, Elkington (1997) introduced the Triple bottom line concept explaining that companies that want sustainability shall pay...
attention to the 3P principles, namely profit, people, and planet, or related to economy, social, and environment. These issues then become the company's attention in the context of sustainability. In order to realize the sustainability principle, the industry's responsibility can be demonstrated in two ways. The first method comes from the company's internal side, namely through sustainability disclosures, while the second method comes from the company's external side, namely through environmental performance assessments (Firmansyah & Estutik, 2020). Environmental performance assessment affirms the company's sustainability disclosure (Firmansyah & Estutik, 2020).

In the context of raising funds as a source of long-term financing for the company, companies shall find ways to attract as many investors as possible. Sustainability disclosure can stimulate investment growth because investors are increasingly concerned about disclosing non-financial information and managing the company (Bernow et al., 2019). Corporate sustainability disclosure can influence investors in adjusting the chosen investment strategy (Bernow et al., 2019). Bernow et al. (2019) stated that the global association that observes the growth of investments concerned with sustainability disclosure released data on the number of global assets invested in considering sustainability disclosures more than doubled between 2012 and 2018, increasing from $13.3 to $30.7 trillion. This fact is certainly a strong enough reason for companies to disclose corporate sustainability. Thus, the sustainability disclosures reported by the company every year and the assessment of the company's environmental performance ultimately become strategic issues that need more attention (Adams & Whelan, 2009; Wilmshurst & Frost, 2000).

The rules regarding sustainability disclosure have been confirmed in laws such as article 74 of Indonesia Act Number 40 of 2007 concerning Limited Liability Companies, which has succeeded in increasing the development of sustainability disclosure by companies and institutions in Indonesia (Muallifin & Priyadi, 2016). It is relevant to the GlobeScan and GRI 2020 survey results, which determined Indonesia as the first rank out of 27 countries for public trust in information disclosure on sustainability disclosure (Wuryast, 2020). Public awareness concerning environmental issues is also starting to increase (Fallan & Fallan, 2019). In addition, the green rating also received a positive response from investors who invest (Cordeiro & Tewari, 2015). Thus, the disclosure of sustainability and environmental performance becomes interesting to examine the company's market performance, affecting investor behavior.

Sustainability disclosure aligns with the Triple Bottom Line (TBL) concept (Lako, 2018). TBL emphasizes that financial condition (profit) is considered insufficient in ensuring a company can grow sustainably (Lako, 2018). In essence, sustainability is known as the economical use of the environment and natural resources without reducing future environmental benefits (Rusdiono, 2017). Currently, there are symptoms that fund managers only want to invest in companies with environmentally friendly business activities (Husaini, 2020). In Norway, large private investors had canceled the flow of investment funds to Brazil, which carried out deforestation in the Amazon forest. Swiss Bank also canceled funding to two states in Australia because it did not comply with climate change principles (www.kontan.co.id, 2020). Businesses in Indonesia in the future shall also look at ecological sustainability so that foreign investors are interested in investing in Indonesia (Kontan, 2017).

Moreover, Indonesia has a wealth of natural resources and abundant biodiversity. Greed and indiscriminate use of nature can damage environmental ecosystems and even threaten the social and economic sustainability of the community (Soenarno, 2014). Article 5 paragraph 1 of Act Number 47 of 2012 concerning Social and Environmental Responsibility of Limited Liability Companies, have required companies in the natural
resources sector to carry out social and environmental responsibilities as Corporate Social Responsibility (CSR). For example, CSR helps develop a sustainable economy by improving the quality of employees and the surrounding community (Firmansyah et al., 2020). In addition, sustainability disclosure is considered essential for a company. Sustainability disclosure can be employed as a means of realizing the company's commitment and contribution to sustainable development (Lako, 2018). Furthermore, it can help organizations set goals, measure performance, and manage change to minimize the risk of business errors in the long term (Lako, 2018). In addition, it can also help companies gain the trust of the community and stakeholders (Lako, 2018).

Tarigan & Semuel (2014) found that the economic dimension does not affect market performance, while the social and environmental dimensions are negatively associated with market performance. Muallifin & Priyadi (2016) concluded that the sustainability disclosure is negatively associated with market performance, while Puspitandari & Septiani (2017), Hardiningsih et al. (2020), Karina & Setiadi (2020) concluded that the sustainability disclosure positively affected market performance. Meanwhile, Ali et al. (2019) suggested no effect of sustainability disclosure on the market performance. Due to the inconsistent test results in previous studies, the re-examination of sustainability disclosures on market performance needs to be investigated further.

Furthermore, the Ministry of Environment and Forestry (KLH) established a company performance rating program in environmental management (PROPER) in 2002 to encourage the company's role in preserving the environment. Environmental performance in PROPER is measured using colors ranging from the best to gold, green, blue, red, and the worst is black. This ranking color predicate helps the public know the company's environmental performance (Friani, 2016). Companies with black ratings for two consecutive years will be provided sanctions in the form of fines, even civil and criminal sanctions, while red ratings will receive sanctions in the form of a warning. For example, the Sido Muncul once received a black rating and was sanctioned to repair its wastewater treatment plant for a year. These improvements cost tens of billions of dollars. After improving waste treatment, Sido Muncul received a blue rating (KBR, 2013).

The implementation of PROPER focuses on companies that significantly impact the environment and are export-oriented, whose production is in direct contact with the community, public companies, including sharia companies, and the SRI-Kehati (Sustainable and Responsible Investment) index (Friani, 2016). Almalia & Wijayanto (2007) conducted research related to environmental performance, while Khairiyani et al. (2019), Lahouel et al. (2020), Abban & Hasan (2021) tested the effect of environmental performance on market performance using the PROPER measurement and found that there was an effect of environmental performance on the company's market performance (operations and market). Subsequent research by Ralina & Prasetyo (2019) examined the effect of environmental performance on firm value and succeeded in concluding that there was a simultaneous effect. The results of this study contradict the results of research by Iwata & Okada (2011), Pujiasih (2013), and Kusumo & Nugrahanti (2017), who found that environmental performance did not affect company market performance and stock market trading. Due to the inconsistent test results in previous studies, the re-examination of environmental performance on market performance needs further investigation.

This study aims to investigate sustainability disclosure and environmental on market performance. Sustainability disclosure in this study quantifies the quality of disclosure of all GRI categories, namely economic, social, and environmental, on a scale of 0 to d. 4, in contrast to previous studies by Hardiningsih et al. (2020), which provides a score of 0 if the social category indicator is not disclosed, and a score of 1 when the social
category indicator is disclosed. The quality of sustainability disclosure is in line with the assessment carried out by the Asia Sustainability Reporting Rating, which applies to companies in Indonesia. Furthermore, environmental performance in this study is measured by the KLHK PROPER value, in contrast to Iwata & Okada (2011), who measured environmental performance based on the effects of waste and greenhouse gas emissions. The KLHK PROPER value can be trusted to measure its environmental performance because it complies with international certification in the environmental field, namely ISO 14001 (Sari, 2018).

This study also employs control variables, namely size, and leverage. The use of control variables in this study is used not to produce biased information in the research results. Size is used as a control variable because it significantly impacts market performance (Ali et al., 2019; Firmansyah & Estutik, 2020; Hardiningsih et al., 2020; William & Sanjaya, 2017). According to Horst (1972), firm size is essential in investment. A large number of access to finance makes large companies more stable and more attractive to investors (Hendra et al., 2018). In addition, investors will speculate more to choose large companies in the expectation of obtaining high returns. The enormous profits obtained by the company are expected to provide higher returns for investors (Handayani et al., 2019). Then, leverage is also a control variable since it significantly impacts market performance (Ali et al., 2019; Firmansyah & Estutik, 2020; Hardiningsih et al., 2020). Based on the returns that investors might receive, profitable companies are more attractive. The more profitable a company is, the more retained earnings will be used and the more minor financing needs (Kalantonis et al., 2021). It can be interpreted that companies with high levels of leverage can reduce investor interest because of the possibility of facing problems in terms of profitability.

2. Literature review and hypotheses development

Signaling theory

Spence (1973) suggested that this theory involves two parties: internal parties, namely management, acting as a signaling party, and external parties such as employees, suppliers, investors, consumers, creditors, or the government acts as the party that receives the signal. Gumanti (2009) explained that the signal is defined as a signal that shall contain the power of information to change the company's external parties. It is also in line with Houston & Brigham (2014), who stated that the signal provided by the company in the form of information describes how management views prospects so that external parties can assess the good or bad information quality. This signaling occurs due to asymmetric information between management and stakeholders, which can be reduced by disclosing annual reports as public information (Gaol & Harjanto, 2019). Fitriyani & Mutmainah (2012) stated that additional information regarding corporate social responsibility activities signals stakeholders about the company's concern for the surrounding environment. According to Wignjohartojo (2001), the quality of non-financial information disclosure of companies can influence users' decision-making of financial statements, especially investors, in determining their investment. In addition, the information in company reports becomes additional information for stakeholders and is widely used in predicting the market value of an organization (Tarigan & Semuel, 2014). Good information is expected to be a positive signal for information users; otherwise, bad information can negatively affect information users.

The association between signaling theory and the company's market performance can be seen when companies present beneficial information to the public. The complete disclosure of sustainability and the higher environmental performance rating will be considered a positive signal by investors and potential investors. The signaling theory emphasizes that companies will tend to present complete
information and higher environmental performance ratings to gain a better reputation to influence shareholder investment decisions, which will increase company value or market performance.

**Hypothesis development**

Based on signaling theory, the information presented by the company as an internal party can be a signal for external parties (Gumanti, 2009). The company will attempt to convey information and reporting, both financial and non-financial, in a comprehensive, relevant, accurate, and timely manner as a report and form of accountability to the company's stakeholders. The non-financial information discussed in this study is the company's sustainability disclosure, submitted annually in the sustainability report or annual report. Companies' sustainability disclosures can increase support from external parties, namely consumers, creditors, and investors to companies in their operations (Tarigan & Semuel, 2014) and generate profits and capital (Putra, 2019).

Investors in the capital market need the information provided by the company as one of the considerations for making investment decisions (Christanti & Mahastanti, 2011). For this reason, the company will strive to provide adequate financial and non-financial information. The company will report on its social performance, expecting that the report can be realized through sustainability disclosure. Companies' sustainability disclosures can increase investor confidence in investing their capital, as indicated by an increase in the market price of outstanding shares (Nurhayati, 2017). Investors consider sustainability disclosure a form of corporate responsibility and concern in the economic, social, and environmental dimensions so that the sustainability disclosure information presented by the company reflects a positive signal (Hardiningsih et al., 2020; Karina & Setiadi, 2020; Safitri, 2015). From the company's perspective, considering that one of the sources of funding comes from shareholders, the company has the intention to provide a positive signal that is expected by investors through increasing transparency of information to shareholders as a form of accountability reporting. Thus, the first hypothesis in this study is:

H1: Disclosure of sustainability has a positive effect on market performance

According to signaling theory, good information is expected to be a positive signal for information users; otherwise, bad information can negatively signal information users (Gumanti, 2009). As measured through the PROPER of the Ministry of Environment and Forestry, the environmental performance becomes an image and reputation that investors and potential investors can use to assess the company's performance (Supadi & Sudana, 2018). The better the environmental performance rating obtained by a company, the better signal for information users.

Investors and potential investors take advantage of various information in assessing their future investment prospects. One of the information that is considered is non-financial information such as environmental performance. As measured through the PROPER of the Indonesia Ministry of Environment and Forestry, a company's environmental performance becomes an image and reputation that investors can use (Supadi & Sudana, 2018). The environmental performance rating leads to a better signal for investors and potential investors. Environmental performance can affect sales and impact company profits (Ralina & Prasetyo, 2019). Increased profits can affect the increase in the stock market price of a company so that environmental performance influences the company's market performance (Ralina & Prasetyo, 2019). Abban & Hasan (2021), Lahouel et al. (2020), and Khairiyani et al. (2019) found that environmental performance is positively associated with firm value.

Eisenhardt (1989) put forward three assumptions of human nature: humans are generally selfish, have limited thinking power about the perception of the future, and humans always avoid risk. Based on the assumption of human nature, it causes that information produced by humans for
other humans is always questioned for its reliability and whether or not the information conveyed can be trusted (Lisa, 2012). Therefore, PROPER presented by an independent party is expected to confirm the disclosures made by the company itself. This condition causes the signal generated from the environmental performance rating to be more strongly received by investors.

Investors considered the environmental performance achieved by the company as a form of corporate responsibility and concern for the environment, which is assessed by the company's external institutions so that the environmental performance rating information achieved by the company reflects a positive signal that is considered good. The environmental performance also increases the company's good name in environmental responsibility (Firmansyah & Estutik, 2020). This information is good news for investors because companies with good environmental performance align with the interests of the world, government, and society. Thus, the second hypothesis in this study is: 

H2: Environmental performance has a positive effect on market performance.

3. Research method

Based on purposive sampling, the criteria for this research sample are as follows:

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-financial companies listed on IDX as of March 2021</td>
<td>628</td>
</tr>
<tr>
<td>Non-financial companies listed on IDX after January 1, 2021</td>
<td>(207)</td>
</tr>
<tr>
<td>Companies that are not registered as KLHK PROPER participants</td>
<td>(339)</td>
</tr>
<tr>
<td>Companies that do not provide complete financial reports, annual reports, and sustainability reports during the study period</td>
<td>(50)</td>
</tr>
<tr>
<td><strong>Number of companies that can be used for this research</strong></td>
<td>32</td>
</tr>
<tr>
<td>Number of years of research (2015-2019)</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total sample observed</strong></td>
<td>160</td>
</tr>
</tbody>
</table>

Source: Processed

This study employs a quantitative approach and secondary data from financial reports, annual reports, and company sustainability reports from 2015 to 2019. Financial reports, annual reports, and sustainability reports are obtained from [www.idx.co.id](http://www.idx.co.id) and [www.idnfinancials.com](http://www.idnfinancials.com), while the stock price information is sourced from [www.finance.yahoo.com](http://www.finance.yahoo.com). In addition, this study also employs PROPER data from the Ministry of Environment and Forestry from [proper.menlhk.go.id](http://proper.menlhk.go.id). This study has selection criteria that are used to obtain a final sample. First, companies engaged in the financial sector are excluded because of differences in the characteristics of capital structure and financial ratios. It is related to the use of leverage and Tobin’s Q as variables. Second, companies with a date listed on the stock exchange or Initial Public Offering (IPO) after January 1, 2011, are selected. It ensures data completeness to calculate the variables used in research. Third, the company has PROPER value.

The dependent variable used in this study is market performance, while the independent variable used is the disclosure of sustainability and environmental performance. This study also includes control variables, namely firm size and leverage. Market performance is used by external parties as an indicator to measure how big, progressing, and developing a company is. In this study, the market performance ratio is proxied by Tobin’s Q, which refers to the research of Hardiningsih et al. (2020), Muallifin & Priyadi (2016), and William & Sanjaya (2017). Tobin’s Q is measured as follows:

\[
Tobin's\ Q_{it} = \frac{MV_{it} + T.Liability_{it}}{Total\ Assets_{it}}
\]
where:

- \( Tobi_n^{'}s \ Q \) : Market performance of company \( i \) in year \( t \)
- \( MVE_{it} \) : Market Value Equity (market value of all outstanding shares) company \( i \) in year \( t \)
- \( T. \ Liability_{it} \) : Total book value of company \( i \)’s liabilities in year \( t \)
- \( Total \ Assets_{it} \) : Total Assets company \( i \) in year \( t \)

The measurement of social responsibility disclosure uses measurements based on the Global Reporting Initiatives (GRI) indicators. The GRI standards are used because they represent global best practices in terms of sustainability reporting to the public, namely regarding the positive or negative contributions of organizations to sustainable development goals. Standards are designed to improve global comparability and information quality, enabling greater organizational transparency and accountability (GRI, 2016). This study measures sustainability disclosure with the Sustainability Report Disclosure Index (SRDI) using GRI sustainability disclosure guideline indicators following (Firmansyah & Estutik, 2020). In line with Lee (2015) and Firmansyah & Estutik (2020), this study employs a scale to assign a score to each disclosure item in the annual report and sustainability report with data collection methods in the form of content analysis. The index employs a scale of 0 to 4 to present the quality score for each disclosure item in the annual report, and the corporate sustainability report is as follows:

Table 1 Sustainability Disclosure Index Scale

<table>
<thead>
<tr>
<th>Scale</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Do not make the disclosure.</td>
</tr>
<tr>
<td>1</td>
<td>Minimum disclosure or briefly mentioned.</td>
</tr>
<tr>
<td>2</td>
<td>Descriptive: presents a definite impact on the company or policy.</td>
</tr>
<tr>
<td>3</td>
<td>Quantitative: the impact on the company is clearly defined in monetary terms or physical quantity.</td>
</tr>
<tr>
<td>4</td>
<td>Truly Extraordinary of Disclosure.</td>
</tr>
</tbody>
</table>

Source: processed

Furthermore, the formula to calculate sustainability disclosure is as follows:

\[
SRDI_{it-1} = \frac{\text{Total Sustainability Disclosure Conducted by the Company}_{it-1}}{\text{Total Disclosure Criteria According to GRI}_{it-1}}
\]

Where:

- \( SRDI_{it-1} \) : Sustainability Report Disclosure Index company \( i \) in year \( t-1 \).

Environmental performance is measured by the company's achievements in participating in the PROPER program organized by the Indonesia Ministry of Environment and Forestry, stipulated in the Decree of the Minister of Environment and Forestry every year to encourage companies to implement environmental management through information instruments. Based on Firmansyah & Estutik (2020) and Djuitaningsih & Ristiawati (2015), environmental performance measurement using the ENPERF proxy is conducted by assigning a score to the PROPER rating obtained the company by taking company data \( i \) in year \( t-1 \). The environmental performance rating system in PROPER is indicated in five colors so that the scoring is conducted using an interval scale of 1-5, as presented in Table 3.

Table 2 PROPER rating score

<table>
<thead>
<tr>
<th>Rating</th>
<th>Description</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gold</td>
<td>Very very good</td>
<td>5</td>
</tr>
<tr>
<td>Green</td>
<td>Very good</td>
<td>4</td>
</tr>
<tr>
<td>Blue</td>
<td>Good</td>
<td>3</td>
</tr>
<tr>
<td>Red</td>
<td>Bad</td>
<td>2</td>
</tr>
<tr>
<td>Black</td>
<td>Very Bad</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: processed
Company size is measured by the natural logarithm of the company's total assets (Ali et al., 2019; Firmansyah & Estutik, 2020; Hardiningsih et al., 2020; Lestari & Sampurno, 2017; William & Sanjaya, 2017) are as follows:

\[
SIZE_{it-1} = \log_{\text{Natural}} (\text{Total Assets})_{it-1}
\]

where:

\(SIZE_{it-1}\) : Size of the company \(i\) in year \(t-1\).

Leverage can measure the company's ability to settle its debt payment obligations using its assets. The proxy of leverage follows Lestari & Sampurno (2017), Ali et al. (2019), Hardiningsih et al. (2020), and Firmansyah & Estutik (2020), with the following formula:

\[
LEV_{it-1} = \frac{\text{Long Term Liability}_{it-1}}{\text{Total Assets}_{it-1}}
\]

where:

\(LEV_{it-1}\) : Leverage of the company \(i\) in year \(t-1\).

4. Result and discussion

Descriptive statistics

The result of descriptive analysis can be seen from Table 4 as follow:

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Median</th>
<th>Max.</th>
<th>Min.</th>
<th>Std. Dev.</th>
<th>Obs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOB</td>
<td>2.3909</td>
<td>1.1383</td>
<td>23.2858</td>
<td>0.1901</td>
<td>3.5159</td>
<td>160</td>
</tr>
<tr>
<td>SRDI</td>
<td>0.7160</td>
<td>0.5659</td>
<td>2.7802</td>
<td>0.0000</td>
<td>0.5622</td>
<td>160</td>
</tr>
<tr>
<td>ENPERF</td>
<td>2.1313</td>
<td>2.0000</td>
<td>4.0000</td>
<td>1.0000</td>
<td>0.5621</td>
<td>160</td>
</tr>
<tr>
<td>SIZE</td>
<td>29.8223</td>
<td>29.8974</td>
<td>32.4730</td>
<td>26.9438</td>
<td>1.3645</td>
<td>160</td>
</tr>
<tr>
<td>LEV</td>
<td>0.1673</td>
<td>0.1478</td>
<td>0.5801</td>
<td>0.0076</td>
<td>0.1316</td>
<td>160</td>
</tr>
</tbody>
</table>

Furthermore, after conducting the Chow Test, Hausman Test, and the Breusch and Pagan Lagrangian Multiplier Test, the best model for hypothesis testing is carried out using the Random Effect Model, with a summary of the results of hypothesis testing can be seen in Table 5.

Discussion

The influence of sustainability disclosure on market performance

This study finds that sustainability disclosure is not associated with a company's market performance based on hypothesis testing. The result is in line with Muallifin & Priyadi (2016) and Ali et al. (2019).
However, the result of this study is different from those of Hardiningsih et al. (2020), Karina & Setiadi (2020), and Safitri (2015) since the measurement techniques for sustainability disclosure are different. Moreover, differences in data analysis methods, characteristics of samples, and research periods may affect the different results.

Table 5 Summary of hypothesis testing

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coeff.</th>
<th>t-Stat.</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>10.0121</td>
<td>0.8928</td>
<td>0.1867</td>
</tr>
<tr>
<td>SRDI</td>
<td>-0.3824</td>
<td>-0.6024</td>
<td>0.2739</td>
</tr>
<tr>
<td>ENPERF</td>
<td>1.0496</td>
<td>2.8197</td>
<td>0.0027**</td>
</tr>
<tr>
<td>SIZE</td>
<td>-0.3052</td>
<td>0.7823</td>
<td>0.2176</td>
</tr>
<tr>
<td>LEV</td>
<td>-3.532.31</td>
<td>-1.3358</td>
<td>0.0918*</td>
</tr>
<tr>
<td>R²</td>
<td>0.0680</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adj. R²</td>
<td>0.0439</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F-stat.</td>
<td>2.8272</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prob(F-stat.)</td>
<td>0.0267</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Processed where:

***) affects the 1% significance level

**) has an effect on the 5% significance level

*) b has an effect on the 10% significance level

Signaling theory states that company management (internal parties) acts as a signal to investors (external parties) who act as signal recipients (Spence, 1973). The signal provided is a signal that shall contain the power of information to change the company's external parties (Gumanti, 2009). The means of signaling can be done by reporting and disclosing company financial or non-financial information: sustainability disclosure (Fitriyani & Mutmainah, 2012). The better the disclosure and the greater the positive value disclosed by the company, the better the positive signal captured by investors. This positive signal can be employed in making investment decisions that can increase the company's stock market price. However, the test results of this study cannot confirm this theory.

The descriptive statistics show that the average sustainability disclosure is only 0.7160, which indicates that the sustainability disclosures by companies contained in this study have not been carried out optimally, with the highest disclosure of only 2.7802 of the maximum index is 4.0000. In addition, currently, there are still many companies in Indonesia that are not yet sensitive to the issue of sustainability disclosure because they still prioritize monetary profit compared to social and environmental profits (Koran.tempo.co, 2018), especially companies whose business processes are related to environmental exploitation often found abandoning the postoperative location after making a profit (Listiyani, 2017). It is supported by the results of the Research Center for Governance, Institutions, and Organizations National University of Singapore (NUS) Business School, The Conference on Corporate Governance and Responsibility: Theory Meets Practice explained the common understanding of companies in Indonesia on CSR practices (Suastha, 2016). Besides that, Nasution & Adhariani (2016) find that there is still much symbolic information in corporate sustainability disclosure in Indonesia, even though companies have followed the GRI reporting framework. The low quality of sustainability disclosures in the tested companies makes it difficult for investors and potential investors to obtain the required company sustainability information so that investors and candidates in making investment decisions do not only look at the company's sustainability disclosures but also look at the other information (Muallifin & Priyadi, 2016). Therefore, the sensitivity of investors to the disclosure of sustainability is also still not proven.

The influence of environmental performance on market performance

This study finds that environmental performance is positively associated with market performance based on hypothesis testing. The result is in line with Abban & Hasan (2021), Almalia & Wijayanto (2007), Khairiyani et al. (2019), Kusumo & Nugr ahanti (2017), Lahouel et al. (2020), and Ralina & Prasetyo (2019). However, it is different from those of Iwata & Okada (2011) and Pujiasih (2013). Measurement of environmental performance
and the use of different environmental performance assessment guidelines in measuring environmental performance can be a differentiating factor with the results of this study, what is meant by other studies is that environmental performance is measured based on the effects of waste emissions and greenhouse gas emission effects (Iwata & Okada, 2011). Other differences exist, namely other studies examining environmental performance on market performance in manufacturing companies only (Pujiasih, 2013).

Signaling theory states that company management (internal parties) acts as a signal to investors and potential investors (external parties) who act as signal recipients (Spence, 1973). The signal provided is a signal that shall contain the power of information to change the company's external parties (Gumanti, 2009). This study confirms the signal theory that the company's environmental performance can positively signal investors. Environmental performance rankings carried out by independent parties outside the company (KLHK) become information reinforcement from the disclosure of environmental category sustainability that can be more trusted by the public (Lisa, 2012). The environmental performance is considered as the positive signals captured by investors and potential investors.

Based on the results of statistical tests that have been carried out, it is known that the average value of environmental performance in the tested companies is 2.1313, and the highest value is 4.0000 (green rating), with the lowest being 1.0000 (red rating). The value of environmental performance varies with an average value close to the median value, indicating that the environmental performance scores of companies in Indonesia vary. This value is published by the Ministry of Environment and Forestry to be accessed directly by investors to distinguish the responsibility for environmental performance between one company and another. Investors can use this rating in determining their investment decisions. More investments made by investors in a company can increase the firm company, indicated by the market price of the company's shares. The formation of market prices is influenced by the most critical factor, namely demand (Mankiw, 2016), so that when demand increases, market prices will rise. Rising market prices reflecting investors' positive assessment of the company supports the concept of the signaling theory, which states that positive information provided becomes a positive signal for recipients. This study confirms that better environmental performance increases the positive response of investors and potential investors as company outsiders.

The influence of control variable on market performance

The test result in this study indicates that the company's size does not affect market performance. This result is in line with Kalkan et al. (2011) and not in line with Ali et al. (2019), Doucouré & Diagne (2020), Firmansyah & Estutik (2020), Hardiningstih et al. (2020), and William & Sanjaya (2017). From the frequency of the results of descriptive statistics, it can be seen that the size of the company is quite varied, with a mean value of 29.8223, a minimum value of 26.9438, and a maximum value of 32.4730. In addition, using a sample of all non-financial companies with various industries as research objects can have different effects (Fernández et al., 2019). Thus, the sample tested in this study cannot prove that investors are more likely to speculate about obtaining higher returns from larger companies (Handayani et al., 2019).

Meanwhile, another control variable, leverage, has been shown to have a negative effect on market performance. The result is in line with Yang et al. (2016). Companies with low leverage levels can increase investor interest because the possibility of facing profitability problems is getting smaller (Kalantonis et al., 2021). According to the returns that investors may receive, profitable companies are more attractive. In addition, increasing leverage affects reducing stock returns (Parwati & Sudiartha, 2016), decreasing stock returns reduces investor interest in investing in companies, thereby lowering
5. Conclusions
The low quality of sustainability disclosure causes the information conveyed to investors and potential investors to be vague. This study's sustainability disclosures cannot prove the signaling theory by acting as a positive signal to influence investors' investment decisions. Investors prefer to use the other information in determining the firm value. In addition, environmental performance assessments from external parties considered more objective and independent make the company's environmental performance rating information more reliable by investors in making investment decisions.

This study has several limitations. The score measurement index is based on the annual and sustainability reports on the sustainability disclosure variables. The process of scoring the index requires an automatic search using the FIND function in the Adobe Acrobat DC Reader Application to search for keywords and explanations related to the components of corporate social responsibility disclosure. However, some company annual reports are scanned directly or protected from the automatic search menu, resulting in information about these components that cannot be found. The index score of the corporate sustainability disclosure variable was obtained using the content analysis method. The method is always related to subjectivity issues (Zaidman-Zait, 2014). This study was only conducted on non-financial companies listed on the IDX, so the results of this study cannot generalize the behavior of all companies in Indonesia. The number of samples of companies in this study is limited because it adjusts to the company's participation in PROPER to meet panel data.

Future research can use a more extended research period to comprehensively capture the effect of sustainability disclosure and environmental performance on market performance. In addition, future research can use samples from companies listed on stock exchanges in several countries, for example, in Southeast Asia, so that the study results become more comprehensive than this study. Similar research can be developed using qualitative methods, especially interviews with company management and investors, to obtain a more detailed picture. The results of this study can be used as input to the Indonesia Financial Services Authority to evaluate the regulation regarding the sustainability activity conducted and monitor sustainability implementation conducted by the companies listed in IDX. In addition, the Indonesia Ministry of Environment and Forestry, as the Government's representative involved in making policies and regulations regarding sustainability disclosure and rating the company's environmental performance, is expected to continue improving the quality of sustainability standards and assessments. Investors can also use this research in making decisions in the capital market.

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