

Comparison of Sustainability Performance, Financial Performance, and Company Values Before and During the COVID-19 Pandemic in Mining Sector Companies

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Abstract:

This study aims to find out and compare whether or not there are differences between sustainability performance, financial performance, and company value before and during the COVID-19 Pandemic. This research examines mining sector companies listed on the Indonesia Stock Exchange in 2018-2021. Sampling was carried out using the purposive sampling method and obtained from five companies. The data used in this research is secondary data. The sustainability performance variable is obtained from the SRDI calculation results, the financial performance variable is obtained using Return on Assets (ROA), and the company value variable is obtained using the Price Earning Ratio (PER). The normality test in this study used the One-Sample Kolmogorov Smirnov Test method and it was concluded that the SRDI data were normally distributed so the Independent Sample T-Test was used, while the ROA and PER data were not normally distributed so the Mann Whitney Test nonparametric different test was used. The results of the study found that there were no significant differences in the variables: sustainability performance (SRDI), financial performance (ROA), and company value Price (PER) before and during the COVID19 Pandemic.

Introduction

Companies must expand their knowledge in developing innovative products and learn to compete by creating a company-wide strategy for sustainable development. One form of corporate change challenge in developing business processes is to meet the needs of the current generation while considering how future generations can also meet their needs. Environment, people, and profit are the three most important considerations for business, therefore companies need to do sustainability reporting properly.

Companies that disclose sustainability reports show a sincere commitment to environmental and social issues which will have an impact on increasing company profits. Since 2005, Indonesia has had sustainability reporting regulations in addition to awards known as the Sustainability Reporting Awards (SRA) which are given to businesses or organizations that have created and made sustainability and public social responsibility reports by utilizing the website. According to Sutami et al (2011), many companies exploit natural resources and human resources to increase company profits.

The environmental damage that has occurred, especially during the Covid-19 pandemic in recent years, has been caused by many companies in various parts of the world. When company profits continue to soar, on the other hand, the damage caused by the production process of goods increases, so that the level of taxes as well as costs for cleaning, health, and environmental sustainability also increase. Therefore, companies should not only focus on maximizing profit or profit, but also must pay attention to the potential impact of environmental damage and social issues.

Along with the development of the times, the demands of society for environmental and social issues have made the company develop the 3P concept introduced by Elkington (1988), namely People, Planet, and Profit or known as the Triple Bottom-Line concept. Now the company is no longer based on the Single Bottom-Line concept but has switched to the Triple Bottom-Line concept. This concept is a reflection of a term known by various companies around the world, namely Sustain Ability. Sustain Ability defines a company to survive as long as possible or is called a Long-Life Company. Elkington (1998) states that:

“At its narrowest, the term “Triple Bottom-Line” is used as a framework for measuring and reporting corporate performance against economic, social, and environmental parameters. At its broadest, the term is used to capture the whole set of values, issues, and processes that companies must address to minimize any harm resulting from their activities and to create an economic, social, and environmental value. The three lines represent society, the economy, and the environment. Society depends on the economy – and the economy depends on the global ecosystem, whose health represents the ultimate bottom line”.

Weber, Koellner, Habegger, H, & Ohnemus (2008) said that companies that disclose Sustainability Reports want to demonstrate the company's commitment to social and

environmental issues to stakeholders and show transparency and get feedback on company performance in response to information demands from stakeholders. Disclosure of environmental, social, and economic performance in annual reports or separate reports is to reflect the company's level of accountability, responsibility, and transparency to investors and other stakeholders (Novita and Djakman, 2008).

The Sustainability Report is prepared by referring to the basis of the Global Reporting Initiative (GRI). GRI is a non-profit organization that promotes economic sustainability. GRI produces standards commonly used by companies around the world for sustainability reporting such as Environmental Social Governance (ESG) Reporting, Triple Bottom-Line (TBL) Reporting, and Corporate Social Responsibilities (CSR) Reporting. Not much research has been conducted in Indonesia regarding the implementation of Sustainability Reporting based on the Global Reporting Initiative (GRI) due to limited samples, among others, not many companies practice disclosure of Sustainability Reports.

This research was conducted by examining differences in sustainability performance, financial performance, and company value before and during the Covid-19 Pandemic as well as selecting specific company categories in the mining sector for the research sample.

Research Method

This research is a kind of comparative causal research with a quantitative approach. This is based on the research objective, which is to find out whether there are differences in sustainability performance, financial performance, and company value before and during the COVID-19 Pandemic in mining sector companies listed on the Indonesia Stock Exchange.

The sample in the study was selected using a purposive sampling technique, which is a technique for determining a research sample with certain criteria and considerations so that the data obtained can later be more representative. In this study the criteria for taking samples are as follows:

1. Companies engaged in the mining sector and listed on the IDX for the 2018-2021 period.
2. Published complete financial reports for 2018-2021.
3. Publish a Sustainability Report which can be accessed from every company's official website.

Based on these criteria, a sample of five companies in the mining sector was obtained.

Table 1. List of Research Samples

Number	Code	Company Name
1	MEDC	PT Medco Energi Internasional Tbk
2	PTBA	Bukit Asam Tbk
3	INCO	Vale Indonesia Tbk
4	BUMI	Bumi Resources Tbk
5	INDY	Indika Energy Tbk

Source : idx.co.id

The data collection technique used in this study is a documentation study. According to Hardani et al. (2020), documents are written items so that documentation can be interpreted as a data collection technique by recording past events/data in the form of writing, drawings, or someone's monumental works. Documentation is done by collecting data related to the research to be examined, determining or recording the necessary data, and calculating the data that has been obtained from the related company. The related companies in question are mining sector companies listed on the Indonesia Stock Exchange for the 2018-2021 period obtained from the IDX website or www.idx.co.id.

The data analysis technique used in this research is a descriptive statistical analysis technique, the One-Sample Kolmogorov Smirnov test as a normality test, Independent Sample T-Test, and Mann Whitney Test if there are data that are not normally distributed.

1. Descriptive Statistics

Descriptive statistical analysis is a data analysis technique by providing an overview or description of the data that has been collected but without providing generally accepted conclusions. Descriptive statistical calculations in this study present the minimum, maximum, average, and standard deviation values.

2. Normality Test

The normality test was carried out to find out whether the data used were normally distributed or not. This test was carried out as a condition for testing the hypothesis of the Independent Sample T-Test which requires that the data be normally distributed. The normality test used is the One-Sample Kolmogorov Smirnov. According to Ghazali (2006) in Dewi (2018), data is said to be normal if the significant value is greater than 0.05. Moreover, the significance value is less than 0.05, the data is called not normally distributed. Data that is normally distributed is tested using the Independent Sample T-Test, whereas if the data is not normally distributed then the Mann-Whitney Test is used in hypothesis testing.

3. Independent Sample T-Test

This study compares sustainability performance, financial performance, and company value before and during the COVID-19 Pandemic, so the hypothesis test used is the Independent Sample T-Test because this test compares the averages of two independent or unpaired data groups. The basis for making decisions in this test includes:

- a) If the significance value (2-tailed) > 0.05 then H_0 is accepted and H_a is rejected, meaning that there is no significant difference. This shows that there was no significant effect on sustainability performance, financial performance, and company value before and during the COVID-19 Pandemic.
- b) If the significance value (2-tailed) < 0.05 then H_0 is rejected and H_a is accepted, meaning that there is a significant difference. This shows that there was a significant influence on sustainability performance, financial performance, and company value before and during the COVID-19 Pandemic.

4. Mann Whitney Test

An alternative test that is used if the Independent Sample T-Test cannot be used because the data is not normally distributed is the Mann-Whitney Test. This test is a non-parametric test that compares the means of two independent or unpaired groups. The difference between this test and the Independent Sample T-Test is that this test is used if the data is not normally distributed, while the Independent Sample T-Test must test data that is normally distributed. The basis for making decisions in this test includes:

- a) If the significance value (2-tailed) > 0.05 then H_0 is accepted and H_a is rejected, meaning that there is no significant difference. This shows that there was no significant effect on sustainability performance, financial performance, and company value before and during the COVID-19 Pandemic.
- b) If the significance value (2-tailed) < 0.05 then H_0 is rejected and H_a is accepted, meaning that there is a significant difference. This shows that there was a significant influence on sustainability performance, financial performance, and company value before and during the COVID-19 Pandemic.

Theoretical Framework

Sustainability Report

According to Elkington (1997:37), sustainable performance is a report that contains not only information on a company's financial performance but also non-financial information consisting of information on social activities and the company's environment that allows the company to grow continentally. Performance (sustainability report) according to the Global Reporting Initiative (GRI) is a report issued by a company or organization related to economic, environmental, and social impacts as a result of the company's daily operating activities. The sustainability report also presents the company's values and governance model and shows the relationship between the company's strategy and commitment to a sustainable economy.

Following the guidelines of the Global Reporting Initiative (GRI), the Sustainability Report in this study is measured by the Sustainability Report Disclosure Index (SRDI). SRDI calculation is done by giving a score of 1 if one item is disclosed, and 0 if it is not disclosed. After scoring all items, the scores are then added together to obtain the overall score for each company.

The Sustainability Report calculation formula is:

$$SRDI = \frac{K}{N}$$

SRDI = Sustainability Report Disclosure Index

K = Number of items disclosed

N = Number of items expected to be disclosed

Financial Performance

Financial performance is a view of the overall condition of the company over a certain period, which is the result or achievement that is influenced by the company's operational activities in utilizing its resources. Performance is a general term that is used for some or all of the actions or activities of an organization in a period regarding standard amounts such as past or projected costs, based on efficiency, accountability or management accountability, and the like (Srimindarti, 2004). One measuring tool used to determine the company's financial performance is the level of the company's profitability ratios. Profitability shows how much the company's financial performance is in generating or obtaining profits. Hanafi and Halim (2003) state that the Return on Assets (ROA) ratio measures a company's ability to generate net income based on a certain level of assets. Likewise, Syamsudin (2004) states that Return on Assets (ROA) is a measurement of the company's overall ability to generate profits with the total assets available in the company. In this study, the ratio of Return on Assets (ROA) is defined as a proxy for measuring financial performance.

The measurements that are often used to calculate Return on Assets (ROA) are:

$$\text{Return on Assets (ROA)} = \frac{\text{Net Income after Tax}}{\text{Total Assets}} \times 100\%$$

Company Values

Increasing the value of the company is the goal of every company. High corporate value can increase prosperity for shareholders so that shareholders will invest their capital in the company (Haruman, 2007). High company value is the desire of the company owner because high company value reflects that the prosperity of shareholders is also high. Susanti (2010), states that shareholder and company wealth is represented by the market price of shares which is a reflection of investment decisions on funding (financing) and asset management. In this study, the Price Earning Ratio (PER) is defined as a proxy for measuring company value. PER (Price Earning Ratio) is a ratio that measures the ratio between the company's stock price and the profits earned by the shareholders.

The formula used is:

$$\text{PER} = \frac{\text{Stock market price}}{\text{Earnings Per Share}} \times 100\%$$

However, the value of PER is influenced by several factors, namely:

- a. Profit Growth Rate.
- b. Dividend Payout Ratio (DPR).
- c. The level of profit implied by investors.

The hypothesis in this study is as follows:

- There are significant differences between the disclosure of sustainability performance before and during the Covid-19 pandemic.
- There is a significant difference between Return on Assets (ROA) before and during the Covid-19 pandemic.
- There was a significant difference between the Price Earning Ratio (PER) before and during the Covid-19 pandemic.

Result and Discussion

Table 2. List of Research Samples

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
SRDI Before	5	0.225	0.550	0.393	0.103
SRDI During	5	0.225	0.800	0.508	0.215
ROA Before	5	0.001	0.436	0.093	0.160
ROA During	5	-0.098	0.630	0.110	0.216
PER Before	5	0.170	64.080	14.889	21.591
PER During	5	-0.080	17045.990	2234.302	5458.549
Valid N (listwise)	5				

Source : processed data, 2022

Table 2 shows that the mean SRDI, ROA, and PER during the pandemic were greater than the mean SRDI, ROA, and PER before the pandemic. An increased SRDI value indicates that the company is increasingly committed to reporting sustainability performance during a pandemic, while an increased ROA value indicates that financial performance is getting better in terms of meeting long-term debt with owned assets. The average PER value has increased which indicates the company's profit growth during the pandemic which has had the effect of increasing share prices.

Normality Test

One-Sample Kolmogorov-Smirnov Test

		SRDI SEBELUM	SRDI SELAMA
N		10	10
Normal Parameters ^{a,b}	Mean	.39250	.50750
	Std. Deviation	.103448	.214751
Most Extreme Differences	Absolute	.223	.150
	Positive	.147	.150
	Negative	-.223	-.147
Test Statistic		.223	.150
Asymp. Sig. (2-tailed)		.171 ^c	.200 ^{c,d}

- a. Test distribution is Normal.
- b. Calculated from data.
- c. Lilliefors Significance Correction.
- d. This is a lower bound of the true significance.

Figure 1. Normality Test on SRDI

The results of the test values with the One-Sample Kolmogorov Smirnov Test on SRDI (sustainability performance) in the table above show that the SRDI value before the pandemic was $0.171 > 0.05$ which indicates that the SRDI data before the pandemic was normally distributed, and the SRDI value during the pandemic was $0.200 > 0.05$ which also indicates that the data is normally distributed. Because the SRDI data before and during the pandemic were normally distributed, the Independent Sample T-Test was used to test the hypothesis on SRDI.

One-Sample Kolmogorov-Smirnov Test

		ROA SEBELUM	ROA SESUDAH
N		10	10
Normal Parameters ^{a,b}	Mean	.09290	.11030
	Std. Deviation	.159859	.215712
Most Extreme Differences	Absolute	.364	.357
	Positive	.364	.357
	Negative	-.283	-.174
Test Statistic		.364	.357
Asymp. Sig. (2-tailed)		.000 ^c	.001 ^c

- a. Test distribution is Normal.
- b. Calculated from data.
- c. Lilliefors Significance Correction.

Figure 2. Normality Test on ROA

The results of the test values with the One-Sample Kolmogorov Smirnov Test on ROA (Return on Assets) in the table above show that the ROA value before the pandemic showed a value of $0.000 < 0.05$ and during a pandemic showed a value of $0.001 < 0.05$ which indicates that the two data are not distributed normally. Therefore, in testing the hypothesis on ROA, the Mann-Whitney Test is used.

		PER SEBELUM	PER SESUDAH
N		10	10
Normal Parameters ^{a,b}	Mean	14.8890	2234.3450
	Std. Deviation	21.59133	5458.57502
Most Extreme Differences	Absolute	.387	.457
	Positive	.387	.457
	Negative	-.248	-.341
Test Statistic		.387	.457
Asymp. Sig. (2-tailed)		.000 ^c	.000 ^c

- a. Test distribution is Normal.
- b. Calculated from data.
- c. Lilliefors Significance Correction.

Figure 3. Normality Test on PER

The results of the test values using the One-Sample Kolmogorov Smirnov Test against PER (Price Earning Ratio) in the table above show that the PER value before and during the pandemic both showed a value of $0.000 < 0.05$ which indicates that the data not normally distributed. Therefore, in testing the hypothesis on PER, the Mann-Whitney Test is used.

Hypothesis Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
SRDI	Equal variances assumed	8.987	.008	-1.526	18	.144	-.115000	.075379	-.273365	.043365
	Equal variances not assumed			-1.526	12.963	.151	-.115000	.075379	-.277893	.047893

Figure 4. Hypothesis Test on SRDI

The results of the calculation of the Independent Sample T-Test SRDI (sustainability performance) in the table above show that the sig. (2-tailed) of $0.144 > 0.05$. Thus H_0 is accepted and H_a is rejected, which means that there is no significant difference in SRDI (sustainability performance) between before and during the COVID-19 Pandemic in mining sector companies. Thus, the results of this study **do not support the research hypothesis**.

Test Statistics ^a	
	ROA
Mann-Whitney U	46.500
Wilcoxon W	101.500
Z	-.265
Asymp. Sig. (2-tailed)	.791
Exact Sig. [2*(1-tailed Sig.)]	.796 ^b

- a. Grouping Variable: PERIODE
- b. Not corrected for ties.

Figure 5. Hypothesis Test on ROA

The results of the calculation of the Mann Whitney Test ROA (Return on Assets) in the table above show that the sig. (2-tailed) of 0.791 > 0.05. Thus H_0 is accepted and H_a is rejected, which means that there is no significant difference in ROA (Return on Assets) between before and during the COVID-19 Pandemic in mining sector companies. Thus, the results of this study **do not support the research hypothesis**.

Test Statistics ^a	
	PER
Mann-Whitney U	44.000
Wilcoxon W	99.000
Z	-.454
Asymp. Sig. (2-tailed)	.650
Exact Sig. [2*(1-tailed Sig.)]	.684 ^b

- a. Grouping Variable: PERIODE
- b. Not corrected for ties.

Figure 6. Hypothesis Test on PER

The calculation results of the Mann-Whitney Test PER (Price Earning Ratio) in the table above show that the sig. (2-tailed) of 0.650 > 0.05. Thus H_0 is accepted and H_a is rejected, which means that there is no significant difference in the PER (Price Earning Ratio) between before and during the COVID-19 Pandemic in companies in the mining sector. Thus, the results of this study **do not support the research hypothesis**.

Conclusion

Based on the results of the research and discussion in the previous chapter, the conclusions that can be analyzed are:

1. On average, SRDI has increased but not significantly as evidenced by the results of research conducted with the Independent Sample T-Test, which shows the results that the sustainability performance of mining sector companies did not experience a significant difference between before and during the COVID-19 Pandemic.
2. On average, ROA has increased but not significantly as evidenced by the results of research conducted with the Mann-Whitney Test, which shows the results that the financial performance of mining sector companies did not experience a significant difference between before and during the COVID-19 Pandemic.
3. On average, PER has increased but not significantly as evidenced by the results of research conducted with the Mann-Whitney Test, which showed that the value of companies in the mining sector did not experience a significant difference between before and during the COVID-19 Pandemic.

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