Examining the Sustainability Report, Financial Performance, and Value of Mining Companies in Indonesia

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ABSTRACT: This study employs a quantitative approach to explore the intricate interplay among Sustainability Reports, Financial Performance (measured by Return on Assets - ROA), and Firm Value (quantified by Tobin's Q) in Indonesia's dynamic mining industry. Employing purposive sampling, data from 75 samples encompassing 25 mining businesses listed on the Indonesia Stock Exchange (IDX) is examined over the 2020-2022 period. Utilizing statistical analysis, the study employs the Partial Least Squares (PLS) data processing application for partial regression analysis. The findings highlight a substantial and favorable impact of Sustainability Reports on Firm Value, underscoring the growing acknowledgment within Indonesian mining firms of the pivotal role played by both financial and non-financial disclosures. Intriguingly, the study uncovers that Financial Performance, as gauged by ROA, lacks a discernible influence on Firm Value. This nuanced insight suggests a shifting landscape where stakeholders increasingly prioritize comprehensive reporting beyond conventional financial metrics. The research sheds light on the evolving nature of the Indonesian mining sector, emphasizing companies' recognition of the significance of transparent reporting practices. These revelations align with global sustainable development goals, emphasizing the central role played by mining companies in advancing these objectives. In navigating this complex dynamic, the study underscores the crucial role of Sustainability Reports in shaping perceptions and values of mining firms in Indonesia.

Keywords: Financial Performance; Firm Value; ROA; Sustainability Report; Tobins Q

INTRODUCTION

Indonesia is one of the countries that has the largest natural resource wealth in the world. One of Indonesia's abundant natural resources is mining. Indonesia is ranked as the ninth largest gold producer in the world with 70 tons by 2022 (Binekasri, 2023). Apart from gold, Indonesia is also ranked as the country that produces the world's largest nickel, with 800,000 tons in 2019 (CNN Tim, 2023).
The mining sector in Indonesia also has a large total investment. According to Badan Pusat Statistik Indonesia (BPS) in 2022 until the beginning of 2023 the mining sector was ranked as the third largest Foreign Direct Investment (PMA) which had 1,045 projects with a total investment of $ 6,064,847.3 thousand and was second in Domestic Direct Investment (PMDN) which had 7,264 projects with a total investment of Rp.82,360,230.3 million. Investment realization in the mining sector in 2022 reached $5.69 billion and Non-Tax State Revenue (PNBP) deposited to the state amounted to IDR 183.35 trillion which exceeded the target based on the adjustment of the Presidential Regulation of the Republic of Indonesia Number 98 of 2022 (kemenesdm, 2023).

Figure 1. Indonesia Mining Investment

Source: BPS Indonesia, 2023

Based on statistics from BPS Indonesia, the investment value in the mining industry of Indonesia has consistently risen each year, as depicted in the aforementioned graph, spanning from 2020 to 2022. Both PMA (foreign direct investment) and PMDN (domestic direct investment) have witnessed an increase in investment volume. The significant interest in investment in the mining sector, encompassing both PMA (foreign investment) and PMDN (domestic investment), serves as evidence of the substantial value of mining firms in Indonesia, given the considerable number of investors involved. Prior to allocating their capital, investors must carefully evaluate various factors to maximize the returns on their investment. (Hidayah, 2020). Companies want to enhance their company value to attract investors, as a high company value indicates a strong likelihood of achieving its objectives. (Pujiningsih & Virgoria, 2020). Stakeholder theory was initially introduced by Stanford Research Institute (SRI) in 1963. Stakeholder theory posits that a firm has a responsibility towards all individuals associated with it. Stakeholder theory posits that businesses must prioritize the concerns of stakeholders and offer advantages that go beyond mere goal attainment. (Suhartini & Megasyara, 2019).

The selection of Tobin's Q as a proxy for firm value is based on its ability to incorporate both the external financial aspect of market value and the internal financial aspect of corporate debt. Tobin's Q has a broader measuring foundation as it takes into account both the market and
accounting basis. By incorporating the debt component into the calculation, Tobin’s Q takes into account not only the equity worth of investors but also the interests of creditors (Okafore et al., 2021).

In addition to financial criteria, there are several elements that might enhance the value of a firm. In 1994, John Elkington proposed the concept of Triple Bottom Line (TBL), which emphasizes the need to consider not only financial issues (profit), but also the environment (planet) and society (people). Elkington argues that organizations aiming for long-term sustainability must prioritize profit, people, and the earth (Ratna & Hasanah, 2019). John Elkington coined the term Triple Bottom Line in his 1998 book Cannibals with Forks. The Triple Bottom Line is a concept that encompasses three key dimensions: profit, people, and planet, which are represented as three distinct lines. The Triple Bottom Line idea prioritizes firm performance based on both financial and non-financial variables (Putra & Larasdiptura, 2020). Companies that utilize natural resources, like the mining industry, must consider environmental factors and the local community in their commercial operations.

Many companies exploit natural and human resources to maximum profits (Irene & Paramitha, 2022). In 2020, the Jaringan Advokasi Tambang Indonesia (JATAM) documented a total of 45 mining conflicts. These conflicts consisted of 22 instances of environmental pollution and destruction, 13 cases of land grabbing, 8 cases of discrimination against residents who opposed mining activities (affecting 69 individuals), and 2 cases of employment termination. (Lumbanrau, 2021). The resolution of this mining dispute is crucial to ensure the company’s valuation remains steady and to uphold positive investor relations.

The utilization of natural resources in mining operations must be carefully evaluated, as their continual exploitation may lead to their depletion and eventual extinction. The preservation of sustainable development is crucial to prevent its eventual extinction. At the UN headquarters on 25 September 2015, global leaders approved the Sustainability Development Goals (SDGs) agenda, which aims to eradicate poverty, address social inequality, and safeguard the environment from extinction. The Global Reporting Initiative (GRI), an autonomous worldwide organization, has formulated standards for Sustainability Reports that aid governments and corporations globally. The GRI standard, published in 2009, mandates that firms submit not just their financial reports but also non-financial disclosures in the form of Sustainability Reports, which detail their company activities. (Lyan et al., 2021).

A sustainability report is a systematic process of quantifying, revealing, and ensuring responsibility for sustainability initiatives, with the objective of attaining sustainable development encompassing economic, social, and environmental dimensions (Siregar & Safitri, 2019). John Elkington (1997) defines a sustainability report as a comprehensive report that encompasses both financial and non-financial performance statistics, specifically focusing on the environmental and social activities that contribute to the long-term viability of a corporation. Stakeholders require non-financial information to assess the extent to which the company engages in environmentally and socially responsible practices. Sustainability reports include comprehensive data on a company’s measurement, disclosure, and initiatives to promote sustainable development (Siregar & Safitri, 2019). In line with the objectives of the Sustainable Development Goals (SDGs), the Indonesian
Financial Services Authority (IDX) has implemented rule No. 51 of 2017. This legislation mandates enterprises in Indonesia to publicly disclose a Sustainability Report that details their sustainable development initiatives. Furthermore, IDX has also established transparency criteria that necessitate reporting by all companies operating in Indonesia.

Companies must prioritize sustainability reports in order to address environmental and social concerns. The disclosure of a Sustainability Report has the potential to enhance the value of a company as it demonstrates the company's commitment to environmental and social responsibility. This is supported by research by Natalia & Soenarno (2021) and Agung et al (2022) which state that sustainability reports have a positive effect on increasing firm value but inversely proportional to research conducted by Irene & Paramitha (2022) that sustainability reports have no effect on increasing firm value.

Economic considerations are likewise a matter of worry when it comes to enhancing the worth of a firm. Investors require financial performance data to assess the extent to which a company effectively manages its money. Investors are more inclined to spend their resources when a company has strong financial success, as they seek to reap the benefits. Return On Asset (ROA) is used as a proxy for financial success as it demonstrates the company's capacity to earn profits via the utilization of all owned assets. A higher Return on Assets (ROA) indicates a greater level of efficiency in the company's ability to make profits by utilizing its assets (Zurriah, 2021). The value of a firm is a direct reflection of its performance in effectively managing its commercial activities. Stakeholders think that investing should take into account not just the company's current performance but also its future potential, due to the company's significant value (Hadisurja & Apriwenni, 2020). There are several alternative measurements of firm value, namely Price Earning Ratio (PER), Price Book Value (PBV) and Tobin's Q. In this study, company value is measured by Tobin's Q.

The research done provides by Nurahma & Budiharjo (2022) gives evidence that an improvement in a company's financial performance, as measured by Return on Assets (ROA), can lead to a rise in the company's value, as measured by Tobin's Q. ROA has a significant positive effect on Tobin's Q. In addition, there is research conducted by Indriana (2023) and Dhae (2023) that ROA has a significant positive effect on company value proxied by Price Book Value (PBV). Return on Assets (ROA) is a financial metric used to measure the profitability of a company's assets. It calculates the net profit created by the assets and adds it to the total assets (Pertiwi & Trionowati, 2022). Investors utilize return on assets (ROA) as a metric to assess the company's efficiency in terms of its financial performance and overall operational activities. The ROA ratio quantifies the company's proficiency in utilizing invested cash in assets for generating profits through its operational activities. Contrary to the findings of Yulfitri et al., (2021), who concluded that ROA does not affect firm value as measured by PBV, the research done by Yahya & Fietroh (2021) found a considerable negative impact of ROA on firm value. Further investigation of this topic utilizing the Tobin's Q proxy would be highly intriguing. Investors in this scenario want comprehensive information on both internal and market finance, as well as financial data including both internal and external sources.

The research framework draws on TBL, Stakeholder Theory, Financial Performance Theory, and
Agency Theory to comprehensively understand the dynamics between sustainability reporting, financial performance, and firm value in the context of the Indonesian mining industry. The study contributes to theoretical advancements by exploring these multifaceted relationships.

**METHOD**

The current research uses a quantitative methodology. The sampling approach employs purposive sampling, which involves selecting samples based on specific criteria. Data analysis involves the use of statistical methods to examine and evaluate the formulated hypothesis. This study utilizes a data processing application called Partial Least Squares (PLS) for doing partial regression analysis. This study employs mining businesses that are listed on the Indonesia Stock Exchange (IDX) and meet the specified criteria:

1) Indonesia Stock Exchange (IDX) listed mining businesses from 2020 to 2022.
2) Publish complete financial reports in 2020-2022.
3) Companies that have profits during the observation year.
4) Publish a sustainability report and can be accessed from each company's official website.

In this research, a tailored set of analytical tools has been strategically chosen to align with the specific variables under investigation—Sustainability Reports, Return on Assets (ROA), and Firm Value (Tobin's Q). To evaluate the extent of sustainability reporting, the Sustainability Report Disclosure Index (SRDI) accompanied by dummy variables provides a structured and quantifiable measure, offering insights into the comprehensiveness of disclosed items. For the financial performance metric, Return on Assets (ROA), traditional financial ratio analysis is deemed appropriate, involving the calculation of net profits divided by total assets, yielding a percentage that indicates the efficiency of profit generation from assets. The analysis of complex relationships between Sustainability Reports, ROA, and Firm Value employs Partial Least Squares (PLS), recognized for its suitability in multivariate models. Statistical tools, including descriptive statistics, correlation analysis, and regression analysis, contribute to hypothesis testing and understanding the interplay among variables. Sensitivity analysis ensures the robustness of findings by assessing the impact of key parameters. Additionally, data visualization through graphs and charts aids in the interpretation and communication of intricate relationships, enhancing the clarity of results for stakeholders. This comprehensive analytical framework ensures a thorough exploration of the research variables and facilitates meaningful insights into the dynamics within the Indonesian mining industry.

The study employs the Sustainability Report as the independent variable, which is a reporting mechanism encompassing both financial and non-financial aspects of economic, social, and environmental performance. Sholikhah & Khusnah (2020) utilize the Sustainability Report Disclosure Index (SRDI) along with dummy factors to assess the measurement of a Sustainability Report. The dummy variable assigns a score of 1 if the disclosed item is included in the report, and 0 if it is not. The total score is then calculated using the SRDI method.
The variables examined in this study are the Sustainability Report and Financial Performance. Supriadi (2021) states that the financial statements often serve as a reflection of a company's financial performance. The financial performance ratio utilized in this study, specifically Return On Asset, is a tool for financial ratio analysis that quantifies the company's capacity to earn profits from its assets. This calculation may be determined using the following formula:

\[ ROA = \frac{Net\ Income}{Total\ Assets} \times 100\% \]

The study will utilize Firm Value as the dependent variable. The company's high valuation instills confidence in investors regarding its success. Firm value, serving as the dependent variable, is quantified using Tobin's Q, a ratio analysis tool that takes into account accounting and market aspects. The ratio is derived by dividing the market value of a company's tangible assets by its replacement cost (Nasir, 2019). Then the computation can be computed using the formula:

\[ Q = \frac{(EMV + Debt)}{EBV} \]

Once the data is acquired and gathered, its accuracy (quality of data) is evaluated using tests for data validity and dependability. Meanwhile, hypothesis testing in this study was conducted by examining the path coefficient, which seeks to assess the link between the independent variable and the dependent variable through the use of PLS (Partial Least Squares) partial regression analysis and the SMART PLS program.

RESULT AND DISCUSSION

The data selection process obtained 25 companies that met the sample criteria, so that the data that could be collected into the sample was 75 observational data, while 38 companies did not meet the criteria because they had not published a sustainability report during the study period. The data obtained by adjusting the purposive sampling criteria can be seen in detail in the following table:
Table 1. Research Sample Determination Process

<table>
<thead>
<tr>
<th>No.</th>
<th>Criteria Description</th>
<th>Number of Companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Mining sector companies listed on the Indonesia Stock Exchange and not delisted during 2020-2022.</td>
<td>63</td>
</tr>
<tr>
<td>2.</td>
<td>Companies that did not publish financial reports during the study period.</td>
<td>0</td>
</tr>
<tr>
<td>3.</td>
<td>Companies that have never published a sustainability report during the study period.</td>
<td>38</td>
</tr>
</tbody>
</table>

Number of Mining Companies Selected as Research Samples 25

TOTAL NUMBER OF SAMPLES (25 x 3 Years Observation Period) 75

Source: Data Processed (2023)

The assessment of PLS analysis involves two stages of data testing: the outer model stage, which evaluates the accuracy of the data through validity and reliability tests, and the inner model stage, which examines the relationships between variables and conducts hypothesis testing to assess the model's fit.

During the outer model testing step, an assessment is conducted to evaluate the validity and reliability of the indicators derived from Partial Least Squares (PLS) analysis. Indicator validity is assessed by the examination of convergent validity and discriminant validity, whereas reliability can be evaluated by analyzing the composite reliability test score. Convergent validity can be evaluated by examining the table of outer loadings. The maximum loading factor is 0.70. If the loading factor value is greater than 0.70, it indicates that convergent validity has been achieved. Conversely, if the loading factor value is less than 0.70, the construct must be excluded from the study (Hair et al., 2019: 112-113). The following are the results of Convergent validity testing:

Table 2. Results of Convergent Validity Value Calculation

<table>
<thead>
<tr>
<th>Variable</th>
<th>X1</th>
<th>X2</th>
<th>Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROA</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SR</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOBINS Q</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Smart PLS 3.0 Processed Data (2023)

Table 2 displays the results of the conducted tests, indicating that the variables of Company Size, Profitability, Leverage, Environmental Performance, Environmental Disclosure, and Financial
Performance achieved a convergent validity value of $1.000 > 0.70$, satisfying the predetermined criteria thresholds.

The last phase of testing, namely Discriminant validity, is conducted to verify that each concept inside each latent variable is distinct from other variables (Hair et al., 2019: 114-114). The requirement for this test is that the crossing loading value must exceed the value of other constructs.

Table 3. Results of Discriminant Validity Value Calculation

<table>
<thead>
<tr>
<th>Variable</th>
<th>X1</th>
<th>X2</th>
<th>Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROA</td>
<td>0.230</td>
<td>1.000</td>
<td>-0.020</td>
</tr>
<tr>
<td>SR</td>
<td>1.000</td>
<td>0.230</td>
<td>0.376</td>
</tr>
<tr>
<td>TOBINS Q</td>
<td>0.376</td>
<td>-0.020</td>
<td>1.000</td>
</tr>
</tbody>
</table>

Source: Smart PLS 3.0 Processed Data (2023)

Table 3 illustrates that each latent variable displays adequate discriminant validity, as there are no significant correlations seen between the evaluations of distinct constructs. Discriminant validity can be evaluated by comparing the square root of the Average Variance Extracted (AVE) value of each construct with the correlation between other constructs in the model. The AVE value must be more than 0.50 or have a p-value lower than the 5% significance criterion (Hair et al., 2019: 114-115). The results of measuring discriminant validity in this study can be seen in the following table:

Table 4. Calculation Results of AVE Value

<table>
<thead>
<tr>
<th>Variable</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sustainability Report (X1)</td>
<td>1.000</td>
</tr>
<tr>
<td>Financial Performance (X2)</td>
<td>1.000</td>
</tr>
<tr>
<td>Company Value (Y)</td>
<td>1.000</td>
</tr>
</tbody>
</table>

Source: Smart PLS 3.0 Processed Data (2023)

According to the findings presented in Table 4, the Average Variance Extracted (AVE) values for all variables exceed 0.50, indicating that they possess discriminant validity. Based on these findings, it may be inferred that all factors are reliable and can instill confidence. The composite reliability value is used as a measure of reliability in this study. The determination of the dependability of a measuring device is accomplished by calculating the reliability coefficient. The dependability coefficient must exceed 0.70 (Hair et al., 2019: 111-112). The table below displays the results of measuring composite reliability:
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Table 5. Calculation Results of Composite Reliability Value

<table>
<thead>
<tr>
<th>Variable</th>
<th>Composite Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sustainability Report (X1)</td>
<td>1.000</td>
</tr>
<tr>
<td>Financial Performance (X2)</td>
<td>1.000</td>
</tr>
<tr>
<td>Company Value (Y)</td>
<td>1.000</td>
</tr>
</tbody>
</table>

Source: Smart PLS 3.0 Processed Data (2023)

Table 5 shows that all variables have a composite reliability value greater than 0.70. These findings suggest that all variables investigated in the study are reliable and may be relied upon for use in further analytical tests. Conducting a test of the structural model or inner model is carried out to evaluate the overall link between the variables in this study. The R2 coefficient was employed to quantify the correlation between variables in the inner model of the study. R Square (R2), or the coefficient of determination, measures the extent to which a model precisely corresponds to the data. The R2 coefficient varies between 0 and 1, with a greater value indicating a more accurate fit for the model. (Hair et al., 2019: 114-115). A model's strength can be determined based on its R2 value, with values < 0.70 categorized as strong, ≤ 0.45 as medium, and ≤ 0.25 as weak.

Table 6. Calculation Results of R Square Value (R²)

<table>
<thead>
<tr>
<th>Variable</th>
<th>R Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company Value (Y)</td>
<td>0.153</td>
</tr>
</tbody>
</table>

Source: Smart PLS 3.0 Processed Data (2023)

The data in Table 6 indicates that the R2 value for the Company Value (Y) is 0.153, which is equivalent to 15.3%. The Environmental Performance (X1) and Financial Performance (X2) variables explain 15.3% of the variability in the Company Value (Y) variable. The remaining 84.7% is attributed to additional variables that are not incorporated in the research model. The result suggests that the model fit value is weak (≤ 0.25), indicating that there are many other variables beyond the research model that can be explained and have an impact on the Company Value (Y) variable.

The PLS Regression approach can offer valuable information into the significance of the association. The calculated value is the t-score, which is then compared to the t-table. If the t-count value exceeds the t-table value (1.96) at a significance level of 5%, then the path coefficient value is deemed to be statistically significant (Hair et al., 2019: 120). This study posits two test hypotheses. The outcomes of each examination are displayed in the subsequent table:
The study reveals important information on the Indonesian mining industry, specifically focusing on the connection between sustainability reporting, financial performance, and business value. Sustainability reports have a significant and beneficial impact on the value of a company, underscoring the increasing significance of non-financial disclosures in shaping stakeholders' views and assessments of mining businesses. Traditional financial indicators, such as ROA, do not show a clear effect on firm value, indicating a change in stakeholders' focus towards broader sustainability factors. The results highlight the changing nature of corporate reporting in Indonesia, stressing the importance for mining companies to adopt transparent reporting procedures that cover both financial and non-financial aspects. Furthermore, the correlation of these discoveries with worldwide sustainable development goals highlights the crucial responsibility of mining firms in promoting sustainability objectives. The study recommends increasing the focus on sustainability reporting in the Indonesian mining industry to improve stakeholder trust, competitiveness, and long-term value generation.

CONCLUSION

This study provides a thorough analysis of how financial performance, sustainability reporting, and company value interact in the evolving context of the Indonesian mining sector. This study's findings provide important insights that have ramifications for stakeholders, investors, and governments. The main finding of the study indicates that the financial performance, measured by return on assets (ROA), does not have a substantial influence on the value of firms in the Indonesian mining sector. Fluctuations in ROA do not significantly impact the total value of mining firms. Conversely, sustainability reporting is identified as a crucial aspect that considerably impacts corporate value. This indicates a change in perspective where stakeholders are increasingly acknowledging the significance of non-financial disclosures in influencing views and assessments of mining companies. Investors are increasingly interested in evaluating investment potential in the business by analyzing both financial and non-financial data, with a special focus on sustainability reports.

The study emphasizes the changing environment in Indonesian mining businesses, as they are recognizing the importance of non-financial reporting standards. This acknowledgment not only increases the value of the company but also corresponds with wider global sustainability goals, such as the Sustainable Development Goals (SDGs). Mining businesses in Indonesia are enhancing their long-term viability and appeal to investors by focusing on environmental and
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social factors, therefore contributing to sustainable development. This research supports stakeholder theory by emphasizing the significance of thorough information disclosure in investment decision-making. It is important to recognize the limits of the study, especially regarding the model's capacity to produce strong influence results. Future studies could go deeper into these dynamics by include additional variables like efficient corporate governance practices. By doing this, a deeper comprehension of the elements influencing company value in the Indonesian mining industry can be achieved, leading to better plans for sustainable development and investment decisions in the sector.

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