Can company size moderate corporate social responsibility disclosure effect on company profitability? Evidence from mining industry

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ABSTRACT

Purpose — This study aims to examine the moderating effect of the company size on the relationship between Corporate Social Responsibility (CSR) disclosure and company profitability in mining industry.

Method — This study employs multiple regression to examine the relationship between CSR disclosure and profitability using ROA and ROE proxies, with company size as a moderator. The observations were conducted on 12 mining companies listed on the Indonesia Stock Exchange during the period of 2018-2022.

Result — We found that company size moderates the relationship between CSR disclosure and company profitability, using ROA and ROE as proxies. The results indicate that CSR disclosure had a positive and significant effect on company profitability when measured with ROA proxies but did not show significance with ROE proxies.

Contribution — This research contributes by using company size variable as the moderator in the relationship between CSR disclosure and financial performance.

Keywords: CSR disclosure, profitability, ROA, ROE, company size

INTRODUCTION

In the current business landscape, companies are required to maintain competitiveness by implementing established strategies. One strategy often employed by companies involves engaging in activities that not only benefit the company itself but also have a positive impact on the broader community, including its stakeholders. An example of such a strategy is the engagement in Corporate Social Responsibility (CSR) activities. CSR is a concept that holds companies financially responsible for addressing social and environmental issues in their vicinity, with the aim of fostering sustainable growth (Dewi et al., 2021).

Companies that adopt CSR policies typically disclose their CSR initiatives (Kaymak & Bektas, 2017). Various social, economic, and ecological impacts stemming from the establishment of industrial areas necessitate corporate responsibility toward the public, particularly the community in proximity to the company’s site (Tenriwaru et al., 2018). Such disclosures of corporate social responsibility often manifest in financial reports as part of social reporting (Hermawan & Gunardi, 2019). This practice aligns with the concept introduced by Elkington (1997), known as the "triple bottom line." According to this concept, companies must balance three aspects, the "3Ps": Profit, Planet, and People. To ensure their survival and success, companies must not only pursue profit but also ensure the well-being of the community (People) and actively contribute to environmental preservation (Planet).

The disclosure of social responsibility by companies is anticipated to provide a positive contribution to various stakeholders. These contributions extend not only to the communities directly impacted by CSR but also to the companies themselves, which continue to seek profits from their actions and policies. The allocation of funds for CSR activities is typically disclosed in the company’s annual reports.
These funds earmarked for CSR activities can significantly impact the company, particularly its profitability. Profitability is a measure of a company's ability to generate profit within a specified period. Profitability ratios offer insights into the overall management effectiveness of a company and gauge its ability to generate profits in relation to sales, assets, and returns for shareholders. Various profitability ratios are available, including Return On Assets (ROA), Return On Equity (ROE), Net Profit Margin (NPM), Operating Profit Margin (OPM), Gross Profit Margin (GPM), Cash Flow Margin (CFM), Cash Return on Assets, and Basic Earning Power (BEP).

Through CSR disclosures, companies can establish a positive image in the eyes of the public (Celvin & Gaol, 2015). This fosters goodwill within the community as the company showcases its care for both the community and the environment. Consequently, the community is more inclined to use the company's products. Increased product usage leads to higher sales, ultimately contributing to enhanced profitability.

Numerous studies have explored the relationship between CSR disclosure, profitability, and company size, yet their findings have been inconsistent. Kamaliah (2020) asserted that corporate governance has no direct effect on CSR disclosure. However, company profitability does have an impact on CSR disclosure, and CSR disclosure, in turn, affects firm value. Notably, CSR disclosure does not mediate the influence of corporate governance on firm value. These results suggest that corporate governance can directly influence firm value, with CSR disclosure playing no mediating role, and that company profitability affects firm value through its impact on CSR disclosure. In agreement with this perspective, research by Bidhari et al. (2013), Utia et al. (2018), Isanzu and Fengju (2016), and Naser et al. (2021) highlights CSR disclosure as a strategic tool for ensuring community sustainability and a company's existence. However, these findings contrast with the research conducted by Dkhili and Ansi (2012) and Stacia and Juniarti (2015), which found no significant effect between CSR disclosure, financial performance, and company size.

Existing literature has provided substantial evidence supporting a positive correlation between the structure of CSR disclosure and the future financial profitability of firms (Siregar and Bachtiar, 2010; Fuadah et al., 2018). Profitability is a company's capacity to generate profits within a specific timeframe, commonly measured using profitability ratios, such as Return On Assets (ROA) and Return On Equity (ROE). These ratios gauge the effectiveness of overall company management and the company's ability to generate profit concerning sales, assets, and shareholder equity. Naser et al. (2021) identified a positive relationship between financial performance and the depth of CSR disclosure, underlining the strategic importance of CSR disclosure for ensuring a company's continuity. The study also indicated that conveying positive information about employees can attract prospective employees, enhance the morale of existing employees, increase productivity, and consequently, lead to financial profitability.

Siregar and Bachtiar (2010) examined board size, foreign ownership, firm size, profitability, and leverage in relation to CSR reporting. They found that firm size had a positive impact on CSR disclosure, while profitability and leverage showed no significant influence on CSR. Given the increasing levels of education and growing awareness of social responsibility and the business environment, it is reasonable to expect changes in the nature and extent of such disclosures by companies in Indonesia.

In light of the conflicting findings in previous research regarding the impact of CSR disclosure on profitability and the importance of understanding the factors influencing profitability, this study revisits the topic by introducing a moderating variable: company size. The effect of corporate social responsibility disclosure on profitability is moderated by company size, drawing from legitimacy theory and stakeholder theory. Legitimacy theory posits that organizations continually strive to ensure that their activities align with societal norms and boundaries. Legitimacy, in turn, is expected to increase with company size, thereby influencing profitability.
METHOD

The sample for this study was derived from the financial statements of mining companies listed on the Indonesia Stock Exchange (IDX). Data from the five-year period 2018-2022 was utilized. Sample selection was limited to mining companies with publicly accessible annual reports on their websites. In some cases, annual reports were sourced from other reliable sources, such as the Indonesian Securities and Exchange Commission (SEI). The sample dataset encompasses a five-year study period from 2018 to 2022, comprising data from 12 companies, resulting in a total of 60 observations.

Data analysis procedures involved grouping data based on variables and respondent types, tabulating data based on variables across all respondents, presenting data for each variable under investigation, and conducting calculations to address the research formulation (Sugiyono, 2018). The data analysis technique employed in this study is panel data analysis, which combines data from different sources, and consequently, the regression model is referred to as the panel data regression model, processed using SPSS.

The research models are outlined as follows:

\[
ROA_{it} = a + \beta_1.CSRD_{it} + e \ldots (1) \\
ROE_{it} = a + \beta_1.CSRD_{it} + e \ldots (2) \\
ROA_{it} = a + \beta_1.CSRD_{it} + \beta_2.CSRD_{it}.CompanySize_{it} + e \ldots (3) \\
ROE_{it} = a + \beta_1.CSRD_{it} + \beta_2.CSRD_{it}. CompanySize_{it} + e \ldots (4)
\]

This study incorporates two key variables, company size (SIZE) and profitability (ROA). Large and profitable companies typically garner higher shareholder value, as supported by previous research (Mediaty & Jao, 2020), (Isanzu & Fengju, 2016), and (Rudyanto & Pirzada, 2020). Company size is quantified using the natural logarithm of total assets, and profitability is measured by dividing net income by total assets, a metric adapted from Inger Vansant (2019).

Information concerning CSR disclosure is extracted from the company's annual reports. CSR disclosures in this study adhere to the Global Reporting Index (GRI) standards, encompassing a total of 91 items expected to be disclosed according to the GRI index. Using a dichotomous approach, each CSR item within the research instrument is assigned a value of 1 if disclosed by the company and 0 if not disclosed.

Hypotheses development

The influence of CSR disclosure on profitability

An increase in ROA and ROE signifies that a company's costs incurred for CSR programs are being efficiently utilized, resulting in a higher level of profitability. The enhancement of the company's profitability can also be influenced by the disclosure of its corporate social responsibility (CSR) programs. Through engagement in CSR activities, companies can foster greater public trust in their products, ultimately improving their reputation within the community. As a result, the public becomes more acquainted with the company's products and develops a preference for them. The more successful the products are in the market, the greater the company's profits (Pratiwi et al., 2020).

CSR encompasses a wide range of activities and initiatives undertaken by a company to create a positive impact on the community and the environment. This may include support for education, healthcare, environmental conservation, culture, and various charitable programs. If managed effectively, CSR programs can yield substantial benefits, contributing to the company's long-term...
reputation and overall existence (Afifah et al., 2021). The significance of a company is an assessment or response from the public (consumers) to the formation of a positive company image.

From the description above, it can be inferred that the implementation of Corporate Social Responsibility (CSR) enhances a company's image. CSR can bring benefits to all stakeholders, including the company itself, the local community, the environment, and society as a whole. Through the effective implementation of CSR, companies can play a positive role in advancing community welfare and minimizing the adverse impacts of their business activities (Agyemang & Ansong, 2017). Companies with a good reputation naturally attract a wide range of customers to purchase their products, leading to sales growth. Investors also evaluate a company based on its financial statements and may invest more capital, ultimately influencing the company's long-term profitability and progress.

ROE is a key metric used to assess a company's profitability. A high ROE figure can contribute to the company's success, resulting in an elevated stock price and improved access to new funding sources (Pratiwi et al., 2020). CSR is a strategic approach employed by companies to achieve their objectives. By engaging in CSR activities, companies can cultivate a favorable public image. When a company establishes a positive image and gains the trust of the public, it can foster consumer loyalty, leading to increased sales and, consequently, profit growth. ROE serves as a valuable tool for assessing profitability. In summary, the preceding arguments suggest that company profitability, as measured by the ROA and ROE proxies, leads to the following hypotheses:

H1: There is an effect of Corporate Social Responsibility (CSR) disclosure on Return On Assets (ROA)

H2: There is an effect of Corporate Social Responsibility (CSR) disclosure on Return On Equity (ROE)

Company size moderates the nexus between CSR disclosure and profitability

The relationship between CSR Disclosure, Firm Size, and Profitability has sparked considerable debate among researchers, primarily because of the lack of consensus on the impact of CSR on corporate profitability. Size emerges as a key predictor of performance, with larger companies often demonstrating superior profitability compared to their smaller counterparts. This scenario underscores the pivotal role played by company size in performance and shareholder rights. Larger companies enjoy a more favorable position when seeking credit from financial institutions, as indicated by Kuncova et al. (2016). They can secure loans at more favorable terms due to their superior credit ratings and reduced likelihood of facing bankruptcy. A similar perspective is shared by Adinegara and Sukamulya (2021), affirming the positive relationship between company size and profitability.

Conversely, other studies have reached differing conclusions, suggesting that company size has no discernible impact on performance. In this context, company size functions as a moderator between CSR disclosure and profitability. Building upon the preceding arguments, we propose the following hypotheses:

H3: Company size moderates the relationship between Corporate Social Responsibility Disclosure and ROA

H4: Company size moderates the relationship between Corporate Social Responsibility Disclosure and ROE
RESULT AND DISCUSSION

Descriptive statistics

Table 1 provides information, indicating that there are 60 observations for each variable. For CRSD, the minimum value is 0.01, and the maximum value is 0.59. The relatively small standard deviation (0.14196), in comparison to the mean value (0.2310), suggests that there is not a significant variation in CSRD values during the observation period.

Regarding ROA, the minimum value is 0.05, and the maximum value is 0.64. The standard deviation (0.17464) is smaller than the mean value (0.3450), indicating that there is not substantial variation in ROA values during the observation period.

For ROE, the minimum value is 0.00, and the maximum value is 2.93. The standard deviation is 0.43479, and the mean value is 0.1955.

In the case of Company Size, the minimum value is 10.53, and the maximum value is 27.99. The standard deviation (4.143) is smaller than the mean value (18.48), suggesting that there is not a significant variation in Company Size values during the observation period.

Table 1. Descriptive statistics

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Range</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Variance</th>
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<tbody>
<tr>
<td>CSRD</td>
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<td>.58</td>
<td>.01</td>
<td>.59</td>
<td>.2310</td>
<td>.01833</td>
<td>.020</td>
</tr>
<tr>
<td>PROFITABILITY</td>
<td>60</td>
<td>.59</td>
<td>.05</td>
<td>.64</td>
<td>.3450</td>
<td>.02255</td>
<td>.031</td>
</tr>
<tr>
<td>(ROA)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PROFITABILITY</td>
<td>60</td>
<td>2.93</td>
<td>.00</td>
<td>2.93</td>
<td>.1955</td>
<td>.05613</td>
<td>.189</td>
</tr>
<tr>
<td>(ROE)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COMPANY SIZE</td>
<td>60</td>
<td>17.46</td>
<td>10.53</td>
<td>27.99</td>
<td>18.4807</td>
<td>.53488</td>
<td>17.166</td>
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<tr>
<td>Valid N (listwise)</td>
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<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

Source: Processed data (2023)
Regression and hypotheses test

The regression test results reveal that CSR disclosure is positively associated with company profitability when measured using the ROA proxy. However, there is no significant relationship between CSR disclosure and ROE.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>t-Statistic</th>
<th>Sig.</th>
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<tbody>
<tr>
<td>Constanta</td>
<td>2.499</td>
<td>3.942</td>
<td>0.000</td>
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<tr>
<td>CSR</td>
<td>0.389</td>
<td>2.605</td>
<td>0.012*</td>
</tr>
<tr>
<td>Constanta</td>
<td>3.513</td>
<td>8.757</td>
<td>0.000</td>
</tr>
<tr>
<td>CSR</td>
<td>0.153</td>
<td>1.590</td>
<td>0.117</td>
</tr>
</tbody>
</table>

*Significance at α = 0.05  **Significance at α = 0.10

The dependent variables company profitability are ROA and ROE proxies; the independent variable is CSR Disclosure, and moderating variable is Company Size.

In this study, CSR disclosures are based on the Global Reporting Index (GRI), encompassing a total of 91 items expected to be disclosed according to the GRI index. The results of hypothesis testing provide compelling evidence that corporate social responsibility (CSR) has a positive and significant impact on company profitability when measured with the ROA proxy. The statistical calculations confirm this effect with positive and significant values. Specifically, the CSRD coefficient of 0.389 implies that a 1% increase in CSR disclosure leads to a 38.9% increase in ROA. The regression analysis results for the effect of CSRD on ROA reveal a probability of 0.012, which is less than 0.05, indicating that CSR disclosure significantly affects ROA. As a result, the first hypothesis, which posits that "CSRD affects ROA," is supported.

Furthermore, the analysis demonstrates that CSRD exhibits a positive influence on ROE, meaning that higher CSRD values correspond to higher ROE values. The CSRD coefficient of 0.153 suggests that a 1% increase in CSR disclosure results in a 15.3% increase in ROE. However, the regression analysis for the impact of CSRD on ROE yields a probability of 0.117, which is greater than 0.05.
Consequently, it can be concluded that CSRD does not have a significant impact on ROE. Thus, the second hypothesis, stating that “CSRD affects ROE,” is not supported.

The findings also suggest that CSR does not have a significant influence on the company's value in this research, possibly due to the relatively shallow extent of CSR disclosure in mining sector companies listed on the Indonesia Stock Exchange during 2018-2022.

Additionally, the regression coefficient for the effect of company size in moderating the relationship between CSRD and ROA demonstrates a positive direction. An increase in the size value strengthens the relationship between CSRD and ROA, with a 1% increase in size resulting in a 5.4% enhancement in the CSRD-ROA relationship. The regression analysis results for the impact of size in moderating the relationship between CSRD and ROA show a probability of 0.007, which is less than 0.05, signifying that size significantly moderates the relationship between CSRD and ROA. Consequently, it can be concluded that size moderates the relationship between CSRD and ROA.

Similarly, the regression coefficient for the effect of company size in moderating the relationship between CSRD and ROE displays a positive direction. An increase in company size enhances the relationship between CSRD and ROE, with a 1% increase in size resulting in a 10.2% strengthening of the CSRD-ROE relationship. The regression analysis results for the impact of size in moderating the relationship between CSRD and ROE indicate a probability of 0.001, which is less than 0.05, demonstrating that size significantly moderates the relationship between CSRD and ROE.

**Discussion**

*Effect of CSR disclosure on Return on Asset*

Based on the results of hypothesis testing, there is evidence that indicates a positive and significant effect of corporate social responsibility (CSR) on company profitability, as measured by Return on Assets (ROA). This suggests that increased disclosure of CSR activities in a company's annual reports is associated with improved financial performance.

These findings align with the legitimacy theory, which posits that companies benefit positively from implementing CSR by fostering strong bonds with the community, ultimately leading to increased company profits in the future (Inger Vansant, 2019; Utia et al., 2018). The results of this study are also consistent with the research conducted by Karlinda et al. (2021).

However, it is worth noting that these results contradict the findings of Pratiwi et al. (2020) who concluded that Corporate Social Responsibility Disclosure (CSRD) does not have a significant impact on company profitability as measured by ROA.

*Effect of CSR disclosure on Return on Equity*

Furthermore, based on the results of hypothesis testing, there is evidence indicating that corporate social responsibility (CSR) does not have a positive or significant effect on company profitability when using Return on Equity (ROE) as a proxy. This suggests that CSR disclosure (CSRD) may not significantly influence investment decisions.

This situation can be attributed, in part, to the absence of government regulations pertaining to the specific CSR indicators that must be disclosed in annual reports. Present government regulations primarily focus on the reporting requirements for issuers or public companies, lacking detailed guidelines on the specific indicators public companies should include in their annual reports. As a result, CSRD may be considered irrelevant to investors, as this information may be viewed as primarily serving other stakeholders or being deemed unreliable (Verbeeten et al., 2016).
These research findings align with the studies conducted by Sakti & Pudjolaksono (2017) and Sudaryanti & Riana (2017), both of which indicate that CSRD does not significantly affect ROE. However, they contradict the findings of Prasetyo & Meiranto (2017), which suggest a significant positive impact of CSRD on ROE.

**Company size as moderating variable on the nexus between CSR disclosure and Return on Asset**

The regression coefficient value for the moderating effect of company size on the relationship between CSR disclosure (CSRD) and Return on Assets (ROA) shows a positive direction. The findings of this study suggest that a larger company size indicates the company's capacity to generate higher profits. This is a crucial consideration for potential investors, as a higher return on investment can positively impact the company's stock price in the capital market, resulting in an increase. Thus, this study implies that company size can reinforce the relationship between CSR disclosure and profitability, as measured by ROA.

These research results align with the Stakeholder Theory, which posits that a company's ability to benefit its stakeholders through its operational activities leads to stakeholder satisfaction and appreciation. In turn, this study implies that company size can reinforce the relationship between CSR disclosure and profitability, as measured by ROA.

**Company size as moderating variable on the nexus between CSR disclosure and Return on Asset**

The regression coefficient value for the moderating effect of company size on the relationship between Corporate Social Responsibility Disclosure (CSRD) and Return on Equity (ROE) shows a positive direction. This suggests that as company size increases, the role of CSRD in enhancing the company's value becomes more significant, primarily through increased sales resulting from various social activities in its surrounding environment. This heightened investor interest in CSRD can positively impact the company's overall value. Thus, it can be concluded that company size does indeed strengthen the relationship between CSR disclosure and profitability, as proxied by ROE.

These results align with the legitimacy theory, which posits that companies should engage in and disclose corporate social responsibility activities extensively to gain community acceptance. This disclosure is used to legitimize the company's activities in the eyes of the public, as it signifies a company's level of compliance (Dewi et al., 2021). The findings of this study are in line with the research conducted by Machmuddah et al. in 2020, which demonstrates that company size enhances the impact of corporate social responsibility disclosure on profitability. This supports the notion that the relationship between company profitability and the disclosure of social responsibility is a recognized principle, reflecting the perspective that social reactions require a managerial approach. Therefore, the higher the level of company profitability, the greater the disclosure of social information.

**CONCLUSION**

The objective of this study is to investigate the moderating influence of company size on the relationship between Corporate Social Responsibility Disclosure (CSRD) and company profitability within the mining sector.

The research findings suggest that Corporate Social Responsibility (CSR) has a partial yet significant impact on Return On Assets (ROA), while it does not exhibit a significant effect on Return On Equity (ROE). Additionally, company size plays a reinforcing role in the correlation between CSR and both ROA and ROE.
From a practical perspective, this study highlights the importance of regulatory bodies, such as the Indonesia Financial Services Authority/ Otoritas Jasa Keuangan (OJK) and other relevant authorities, gradually implementing mandates for companies to disclose CSR information in both annual and sustainability reports.

Future studies in this field could further delve into the quality of CSR disclosure, especially by assessing adherence to GRI G4 and GRI standards, providing a deeper understanding of the impact of CSR on financial performance.

REFERENCES


