The influence of CSR and environmental performance on profitability

Riauli Susilawati*, Moch. Edman Syarief, Arwan Gunawan, and Carolina M. Lasambouw

Abstract. This research seeks to investigate how corporate social responsibility (CSR) and environmental performance impact the financial profitability of a company. The approach employed is a quantitative methodology utilizing cross-sectional regression analysis with a sample comprising 72 manufacturing companies listed on the Indonesia Stock Exchange (IDX). The study findings reveal that the impact of CSR ($b=0.11; p-value=0.07$) on financial performance is inconclusive. This is due to companies being unable to validate that their social responsibility aligns with community expectations, indicating no clear effect of CSR and environmental performance on company profitability. On the other hand, environmental performance ($b=0.07; p-value=0.00$) affects the profitability of the company. This condition can be achieved because within the framework of legitimacy theory, the public considers that industrial waste processing carried out by the companies that are the sample in this study has a good impact on the company’s environment, which in turn will increase competitive advantage and ultimately increase company profits.

1 Introduction

According to the Ministry of Environment and Forestry (KLHK) the compliance of the manufacturing sector in environmental management is still low. This is aimed at the large amount of B3 (Hazardous and Toxic Materials) waste from the Ministry of Environment and Forestry in Indonesia in 2021 of 60 million tons, from 2,897 companies in the manufacturing sector. With B3 waste that can be utilized as much as 13.26 million tons (22.5%), it means that the utilization of B3 waste in Indonesia is not optimal. Meanwhile, the Ministry of Industry has encouraged companies in the manufacturing sector to protect the environment in their production processes, so that companies can increase their competitiveness and profitability, and boost the Indonesian economy.

The Ministry of Industry introduced the circular economy concept with five main principles: Minimizing the consumption of natural raw materials (Reduce), maximizing the utilization of reusable materials, and employing resources derived from recycling (Recycle), recovery, or repair processes. The CSR (Corporate Social Responsibility) initiative has integrated principles of the circular economy, aligning with the GRI (Global Reporting

* Corresponding author: riauli.susilawati@polban.ac.id

© The Authors, published by EDP Sciences. This is an open access article distributed under the terms of the Creative Commons Attribution License 4.0 (https://creativecommons.org/licenses/by/4.0/).
Initiative) standards utilizing 91 measurement indicators. As per Law Number 40 of 2007 concerning Limited Liability Companies, social and environmental responsibilities have become obligatory for companies involved in natural resources. Despite legal regulations mandating the CSR program, numerous manufacturing sector companies have refrained from implementation due to financial constraints, leading to a lack of improvement in Indonesia's environment. Companies that implement CSR have managed to save up to IDR 3.2 trillion in energy, as well as IDR 169 billion in water savings.

To improve environmental and economic condition in Indonesia, the Ministry of Environment and Forestry created an additional program to assess company environmental performance, namely the Company Performance Rating Program called PROPER. When implemented simultaneously, the CSR and PROPER programs can create a green industry, so that Indonesia can meet its waste reduction target of up to 70%. This is in accordance with President Joko Widodo's statement regarding Indonesia's commitment to environmental conservation and global climate change mitigation at the United Nations Climate Change Summit Conference of the Parties (COP 26). For support commitment, there is subtraction of carbon through downstream industries and stopping the export of raw materials for a number of commodities and creating downstream industries for exports of finished or semi-finished goods. According to the World Bank Report, investing in creating a green environment will not have a negative impact on the company. Because companies can improve environmental performance and company profitability. Profitability is one way to analyze or assess the efficiency of a company's financial performance. One of the most common types of measurement of profitability is ROA (Return On Assets), because it can see the company's success in earning profits from waste management activities.

This study aims to examine the impact of implementing CSR and PROPER on the profitability, as indicated by ROA, within manufacturing sector companies listed on the Indonesia Stock Exchange in 2021. The problem statement revolves around investigating how the implementation of CSR and PROPER influences the ROA of these companies. The research intends to shed light on the significance of adopting CSR and PROPER practices in safeguarding the environment and managing the social impacts generated by companies. The goal is to offer insights that can guide companies in formulating policies that prioritize environmental concerns.

2 Literature review

2.1 Legitimacy theory

The concept of legitimacy theory posits that organizations continuously endeavor to operate within the established norms and boundaries of their respective societies [1]. It suggests that no organization inherently possesses the right to exist; instead, their operations depend on the recognition and acceptance bestowed by society. However, this legitimacy is at risk if the company's actions are perceived as unacceptable by society [2,3]. Hence, following this theory, companies engage in practices acceptable to society, not only to survive but also to enhance their profitability. In this scenario, the company utilizes annual and sustainability reports to communicate the environmental responsibilities undertaken within the community.

2.2 CSR and financial performance

Several researchers, such as those cited in references [4–11], advocate that CSR exerts a substantial and beneficial impact on financial performance, specifically reflected in the return
on assets. According to their viewpoint, companies are advised to maximize all facets of social responsibility to uphold enduring and sustainable financial performance.

On the contrary, a group of researchers, referenced in [12–15], contends that social responsibility adversely affects financial performance. Their perspective suggests that investments directed toward social responsibility initiatives diminish the company's profitability, indicating that increased disclosures in this area correspond to lower overall profitability.

Derived from the aforementioned viewpoint, the proposed hypothesis is as follows:

H1: Social responsibility positively impacts the financial performance of the company.

2.3 Environmental performance and financial performance

According to certain researchers, environmental performance yields a positive impact on the financial performance of a company [16–23]. These findings indicate that companies demonstrating strong environmental consciousness are more likely to receive favorable recognition from the community, thereby positively influencing the company’s revenue.

Other researchers argue that environmental performance will reduce a company's financial performance [24–28]. The reason raised is that investment in environmental performance will reduce company revenue if there is no financial flexibility for companies trying to improve their environmental performance.

Drawing from the outcomes of the aforementioned research, the proposed hypothesis stands as follows:

H2: Environmental performance positively influences the financial performance of the company.

3 Research methods

This study employs a quantitative methodology utilizing cross-sectional regression. The study's population comprises 215 manufacturing companies listed on the Indonesia Stock Exchange. The sample consists of 72 manufacturing companies meeting specific criteria, such as not having undergone delisting, not being involved in an IPO, being a member of PROPER, and providing the necessary data for this research.

The analysis is conducted using multiple regression techniques with the assistance of EViews software. To ensure the model's validity, a Gauss theorem test was executed. This test encompasses checking the normality of residual data, investigating autocorrelation, assessing heteroscedasticity, and examining multicollinearity.

To test the proposed hypothesis, the estimation model used is as follows:

\[
ROA_i = \beta_0 + \beta_1 CSR_i + \beta_2 Proper_i + e_i
\]  

Where ROA \(i\) is the value of return on assets of each sample, CSR \(i\) is the ratio of CSR disclosures, and Property \(i\) is the value of environmental performance. More details about the variables used can be seen in table 1

<table>
<thead>
<tr>
<th>Label</th>
<th>Variable Name</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROA</td>
<td>Return on Assets;</td>
<td>Assessed through the metric of Net Income divided by Total Assets.</td>
</tr>
<tr>
<td>CSR</td>
<td>Corporate social Responsibility; measured by the ratio of items disclosed / items that should have been disclosed using the GRI</td>
<td></td>
</tr>
</tbody>
</table>
4 Results and discussion

4.1 Descriptive statistics

Referring to Table 2, it is evident that the highest CSR score is 75.82%, achieved by Indofood Sukses Makmur Tbk, while the lowest score is 40.65%, recorded for Darya Varia Laboratory Tbk. As for the Proper indicator, it ranges from a maximum score of 5, shared by Central Proteina Prima Tbk, Semen Indonesia (Persero) Tbk, Unggul Indah Cahaya Tbk, and Unilever Indonesia Tbk, to a minimum score of 2, reported by Kabelindo Murni Tbk, Mustika Ratu Tbk, and PT Samator Indo Gas Tbk. ROA exhibits a maximum value of 34.31%, attributed to Central Proteina Prima Tbk, and a minimum value of 0.07%, found in Mustika Ratu Tbk.

Based on Table 3 on the residual normality test using the Jarque-Bera, the heteroscedasticity test using the White test, the autocorrelation test using the Durbin-Watson value, and the multicollinearity test using the VIF test, it was found that the residual data was normally distributed, there was no autocorrelation, there was no heteroscedasticity, and no there is multicollinearity. Thus the model can be used for further testing.

R² value obtained was 46.2%, which means that the variation in exogenous variable changes used in this research model can explain the 46.2% variation in endogenous variable changes, the remaining 53.8% is explained by other variables not included. in models.

As per the regression outcomes outlined in table 3, it is evident that CSR (b = 0.11; p-value = 0.08) demonstrates a positive yet statistically insignificant impact on the financial performance measured by ROA. Conversely, Proper (b = 0.069; p-value = 0.00) exhibits a positive and notably significant influence on ROA.
4.2 Discussion

4.2.1 The influence of CSR on financial performance

According to the analysis findings, the hypothesis asserting that CSR positively impacts ROA is refuted. This rejection stems from the regression coefficient's lack of statistical significance, suggesting that the extent of CSR disclosures made by the sampled companies in this study does not influence fluctuations in company profitability. Within the scope of legitimacy theory, the rationale behind this outcome may be that the company's endeavors in fulfilling its social responsibility were not acknowledged by the community, thus failing to yield a competitive advantage and, consequently, not benefiting the company. In essence, the company is unable to validate that its social responsibility practices align with the community's expectations.

The results of this study are not in line with research from Cho et al., [4], Memon et al., [5], Yang et al., [5], Lin et al., [8], Okafor et al., [9], Sulbahri et al., [10], Ran et al., [11] and Iwata [24] which states that CSR has a positive effect on financial performance.

The findings of this study contrast with the perspectives of Karim et al., [12], Musleh [13], Althaf [14] and Abdin [15] who contend that CSR negatively impacts financial performance. Conversely, this study's outcomes align with the conclusions drawn in research conducted by Rahmi [29] and Goh et al., [30], which similarly discovered that CSR does not influence ROA.

4.2.2 Effect of environmental performance on financial performance

The hypothesis asserting the influence of environmental performance, represented by Proper, on financial performance is validated. This is evidenced by the positively significant regression coefficient. Within the scope of legitimacy theory, this signifies that the waste management practices conducted by the sampled companies in this study positively affect the company's environment. Consequently, this elicits a favorable reaction from the community, indicating a belief that the company aligns with communal environmental expectations. Ultimately, this confers a competitive edge to the company, leading to increased profits.

The results of this study align with the conclusions drawn by researchers in Lee et al., [16], Angelia and Suryaningsih [17], Rizky and Hadinata [18], Abban and Hasan [19], Bassetti et al. [20], Wen and Lee. [21], Wu et al. [22], Boakye et al., [23], supporting the notion that environmental performance positively influences a company's financial performance. However, this study's findings contradict the viewpoints of researchers in Iwata [24], Horváthová [25], Devie et al., [26] Akbar et al., [27], Jyoti et al [28] who assert that environmental performance has a negative impact on financial performance.

5 Conclusion

This research investigates the impact of CSR and environmental performance on financial outcomes. The findings indicate that CSR (b=0.11;p-value=0.07) does not significantly affect financial performance due to companies' inability to demonstrate that their social responsibility aligns with community expectations. In contrast, Proper, serving as an indicator of environmental performance, shows a positive influence on financial performance (b=0.07;p-value=0.00), This is attributed to effective industrial waste management practices implemented by the sampled companies in this study, positively impacting the company's
environmental efforts. Consequently, this enhancement leads to a competitive advantage and ultimately drives increased company profits.

References

15. Z. ABDIN, (2021)
25. E. Horváthová, Ecol. Econ. 84, 91 (2012)
29. N. U. Rahmi, A. Susanto, and I. Muda, J. Posit. Sch. Psychol. 6, 2443 (2022)