



Green Accounting, Company Size, Leverage on Financial Performance: Moderation Role of CSR

Linda Ayu Wulandari*, Taufik Akbar

Master of Accounting Program, Economics and Business Faculty, Universitas Mercu Buana, Jakarta, Indonesia.

*Correspondence: E-mail: taufikakbar@mercubuana.ac.id

ABSTRACT

This study aims to analyse the effect of green accounting, company size, and leverage on financial performance with the moderating role of Corporate Social Responsibility. This research employs Moderated Regression Analysis (MRA) using 162 panel data observation from basic materials sector companies listed on the Indonesia Stock Exchange that achieved PROPER ratings during 2019–2024 with E-Views 13. The results shows that green accounting and company size have a significant positive effect on financial performance, while leverage shows no significant influence. CSR weakens the relationship between green accounting and leverage on financial performance but does not significantly moderate the influence of company size on financial performance. These results enrich the understanding of how sustainability initiatives interact with firm characteristics in shaping financial outcomes and practically this study offers insights for managers and investors regarding the strategic importance of integrating sustainability performance and CSR disclosure to strengthen financial outcomes and support long-term business resilience. The theoretical implication highlights the relevance of stakeholder theory and legitimacy perspectives in explaining how environmental performance and CSR disclosure contribute to financial performance. Practically, the study provides insights for managers and investors regarding the importance of integrating sustainability performance with strategic planning to improve long-term financial resilience. The novelty of this study lies in the use of CSR based on the GRI Standards 2021 as a moderating variable in examining the influence of company size, green accounting, and leverage on financial performance in the basic materials sector.

ARTICLE INFO

Article History:

Submitted/Received 05 Jul 2025

First Revised 18 Aug 2025

Accepted 30 Sept 2025

First Available online 02 Nov 2025

Publication Date 01 Dec 2025

Keyword:

Green Accounting,

Company Size,

Leverage,

Corporate Social Responsibility,

Financial Performance.

1. INTRODUCTION

In the era of industry 4.0, many companies are experiencing rapid growth and only attach importance to higher profits because they keep pace with market demand, but it is often accompanied by the possibility of increasing social gaps, as well as environmental degradation resulting from the company's industrial activities that are less structured in the use of their resources, and often exploitation (Nagari et al., 2019; Lako, 2019). In the context of financial accounting, the effectiveness of governance is reflected in profitability, which shows how efficiently a company manages its resources to maintain financial performance and business sustainability (Tarigan, 2024; Fahmi, 2017). The basic materials sector as a global main raw material supplier faces great pressures related to sustainability, coupled with fluctuating ROE performance and being below the standard of 10% in the 2019–2024 period (Kasmir, 2019), therefore, it is necessary to review the factors that determine financial performance.

The increase in stakeholder demands for social, community, and environmental responsibility encourages companies to apply the triple bottom line principle (Elkington, 2013). Green accounting has been proven to improve environmental cost efficiency and stakeholder trust, thereby potentially improving financial performance (Sadiku et al., 2021; Ramadhan et al., 2024; Dewi and Muslim, 2022; Kurniawan and Ethika, 2024; Mustofa and Murtanto, 2024; Tuti and Sisdianto, 2024; Christy and Tjun, 2024). However, a number of studies have also reported no significant effect of green accounting on profitability (Dita and Ervina, 2021; Endiana et al., 2020). Inconsistencies also occur in the influence of company size, where some studies state size reflects financial stability, while other studies state no effect on financial performance (Kurniati et al., 2024; Sari and Setyaningsih, 2023; Hasti et al., 2022; Atiqah et al., 2023). The same thing happens with leverage, whose research results show an inconsistent relationship with profitability (Makhdalena, 2018; Sari and Mahardika, 2023; Fauzy et al., 2023; Wulandari and Lestari, 2024; Amalia and Khuzaini, 2021; Hasti et al., 2022).

The difference in findings shows that there is an empirical gap that needs to be analyzed by including the moderation variable. CSR is seen as relevant as a moderator because it can change the direction and strength of the relationship between company characteristics and financial performance, especially in high-risk sectors such as basic materials (Sandrawan, 2021; Shodiqoh et al., 2024). CSR can strengthen reputation, stakeholder trust, and investment decisions, thereby influencing how green accounting, company size, and leverage impact financial performance (Jung and Im, 2023; Noja et al., 2023; Şerban et al., 2023; Fauzy et al., 2023; Atiqah et al., 2023; Leying and Xinpeng, 2020). In addition, an important gap that has not been widely researched is the use of CSR indicators based on the GRI Standards 2021, which offers a more comprehensive measurement of sustainability.

Theoretically, this research refers to legitimacy theory and signal theory. Legitimacy theory explains that companies gain public support when their practices conform to societal norms (Suchman, 1995). Whereas signal theory asserts that companies use disclosure of the environment, assets, funding structure, and social responsibility as quality signals to investors (Spence, 2002). The combination of the two theories provides a basis for explaining how green accounting, company size, leverage, and CSR affect financial performance in the context of sustainability.

This study aims to analyze the influence of green accounting, company size, and leverage on financial performance with CSR as a moderation variable in companies in the basic materials sector that won PROPER. The contribution of this research lies in the integration of CSR based on GRI Standards 2021 as a moderator, thus expanding the literature on the determinants of

financial performance in the perspective of sustainability. In practical terms, this research provides guidance for investors in evaluating sustainable companies and for management to optimize sustainability practices to improve financial performance and long-term resilience.

2. METHODS

This study employs a quantitative approach with descriptive and verificative methods because these methods enable objective measurement of variables and statistical testing of causal relationships based on empirical sustainability and financial data. The verificative design is appropriate to examine the influence of green accounting, company size, and leverage on financial performance, as well as the moderating role of CSR. Secondary data were collected from annual and sustainability reports sourced from the Indonesia Stock Exchange (www.idx.co.id) and official company websites for the period 2019–2024. The sampling technique used is probability sampling through cluster sampling, as companies in the basic materials sector form natural clusters with homogeneous characteristics, ensuring equal selection opportunities (Bougie and Sekaran, 2020), that is PROPER ratings achieved by company (Gold, Green, Blue, Red and Black), so the final data is 162 panel observations. Panel data is chosen because it integrates time-series and cross-sectional dimensions, improves estimation accuracy, and captures firm dynamics over time. Data analysis was conducted using E-Views 13 due to its capability in handling panel data and performing regression-based statistical procedures.

The analytical stages include descriptive statistics, classical assumption tests, multiple regression, and Moderated Regression Analysis (MRA). MRA is used because it examines whether CSR alters the relationship between independent variables and financial performance. According to Sharma *et al* (1981), a moderating variable can act as a pure, quasi, potential, or predictor moderator; in this research, CSR functions as a quasi-moderator because it operates both as an independent variable and an interaction term. Each variable has indicators to measure in this research will show at this **Table 1**:

Table 1. Operational variable definition

No	Variable	Dimension	Indicator	Scale
1	Financial Performance (Fahmi, 2020; Kasmir, 2019)	Measurement of profitability and efficiency of equity use	$ROE = \frac{Net\ Profit}{Equity} \times 100\%$	Ratio
2	Corporate Social Responsibility (Hermawansah and Amanah, 2023)	Disclosure of social and environmental responsibility	$CSRDi = \frac{Total\ Disclosure}{GRI\ Standard\ 2021} \times 100\%$	Ratio
3	Green Accounting (Adikasiwi <i>et al.</i> , 2024)	Environmental management and regulatory compliance	PROPER rank (Gold = 5; Green = 4; Blue = 3; Red = 2; Black = 1)	Ordinal
4	Company Size (Sari and Mahardika, 2023)	The size of the company's total assets	$SIZE = LN(Total\ Asset)$	Ratio
5	Leverage (Kasmir, 2019; Higgins, 2016)	Capital structure and debt dependence	$DER = \frac{Total\ Liability}{Total\ Equity}$	Ratio

Source: Data processed by researchers, 2025

PROPER is treated ordinally (1–5) as a green accounting indicator because this rating reflects the intensity of standardized environmental compliance, while CSR is measured by a disclosure index based on the GRI standard 2021, namely 30 indicators of GRI 2 (general disclosure), 3 indicators of GRI 3 (material topic standards), 17 indicators of GRI 200 (economic), 31 indicators of GRI 300 (social), and 36 indicators of GRI 400 (environment) to illustrate the comprehensiveness of disclosure economic, governance, social and environment.

3. RESULTS AND DISCUSSION

To clarify the flow of the relationship between variables and capture the common thread of the research findings, here is a construction diagram illustrating the logical interconnectedness of the influence of green accounting, company size, and leverage on financial as well as the CSR moderation mechanism. This diagram (**Figure 1**) helps to show the conceptual structure of research in a more systematic manner and makes it easier to understand the structure of research findings.

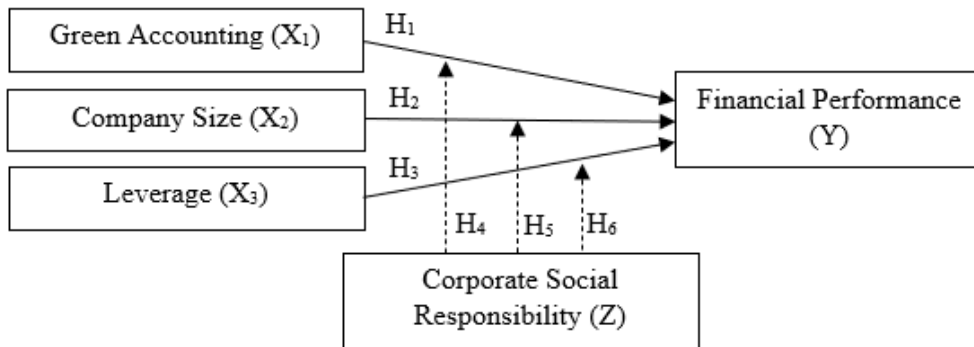


Figure 1. Research Construct.

Based on the construction diagram, the next analysis begins with the presentation of descriptive statistics as the basis for the initial evaluation of the distribution and characteristics of the data. This statistical analysis used is descriptive statistical analysis, which serves to provide an overview or explanation of the data (variables) being analysed, by referring to the mean value, standard deviation, and existing minimum and maximum values (Ghozali, 2018). The following are the results of statistical descriptive analysis of 27 companies over 6 years measure in this research will show at this **Table 2**:

Table 2. Statistical descriptive analysis

Variable	Mean	Max	Min	Std. Dev.
ROE	5,115995	42,02615	-34,10565	9,984523
PROPER	3,395062	5,00000	1,00000	0,767006
SIZE	29,99251	32,87984	27,63896	1,473853
DER	1,067401	8,232161	0,069562	1,324177
CSR	84,34631	99,1453	66,66667	8,226442

Source: Output E-views 13 (data processed by researchers, 2025)

Based on the analysis results, the ROE of companies in the basic materials sector shows a standard deviation of 9,98%, indicating high variability. The minimum ROE is -34,11% and the maximum is 42,03%, with an average of 5,12%, still below the 10% industry standard (Kasmir, 2019), indicating suboptimal financial performance. The PROPER score minimum 1, maximum 5, with a mean of 3,40, suggesting that few companies have achieved the gold category and most

are still below the optimal green standard score of 4. The SIZE as measured by the natural logarithm of total assets in this sector has a minimum value of 27,64 and a maximum of 32,88. Meanwhile, the mean in this sector is 29,99, which is above the standard of 14 (Fahmi, 2020; Kasmir, 2019), reflecting dominance by large-scale firms with relatively homogeneous asset sizes. The leverage (DER) ranges from 0,07 to 8,23, with a mean of 1,07, still within the healthy range of 0,5–2,0 (Kasmir, 2019; Brigham and Houston, 2019), though a standard deviation of 1,35 indicates moderate variation. Furthermore, CSR disclosure reaches a mean of 84,35%, exceeding the ideal GRI standard of 80%, with values ranging from 65,83% to 99,15%, showing strong compliance and transparency in sustainability reporting across the sector (Global Reporting Initiative, 2021).

After descriptive statistics, we need to do selection to choosing the best models used in this research between Common Effect Model (CEM), Fixed Effect Model (FEM), and Random Effect Model (REM). The following **Table 3**. Is the selections models.

Table 3. Selection model regression

Testing	Effects Test	Prob.	Sig.	Conclusion
Chow	Cross-section Chi-square	0,0000	0,05	(0,000<0,05) FEM
Hausman	Cross-section random	0,0200	0,05	(0,020<0,05) FEM

Source: Output E-views 13 (data processed by researchers, 2025)

Based on the **Table 3**, chow test results probability value of the cross-section chi square is 0,0000, which is smaller than the alpha value of 0,05 which means that Fixed Effect Model (FEM) is more appropriate than Common Effect Model (CEM). Then Hausman test results random cross-section probability value of 0,0200, which is smaller than the alpha value of 0,05, it means that Fixed Effect Model (FEM) is more appropriate than Random Effect Model (REM). So, the best model for this study is Fixed Effect Model (FEM).

In accordance with the results of the model selection test, it can be found that the selected model is a Fixed Effect Model. The normality test is not mandatory because it is not something that must be met. The normality test is basically not a requirement for BLUE (Best Linear Unbiased Estimator) (Basuki and Prawoto, 2021) and the Fixed Effect model prioritizes coefficient consistency over residual normality and uses a stronger error standard, so that it is able to handle the problem of data heterogeneity effectively (Gujarati, 2012). According to Basuki and Prawoto (2021), not all classical assumption tests must be carried out on the OLS (Ordinary Least Square) approach with panel data, such as the use of autocorrelation tests because panel data is cross section, while autocorrelation only occurs in time series data (Basuki and Prawoto, 2021). Therefore, this study uses multicollinearity and heteroscedasticity tests.

Table 4. Multicollinearity test

	ROE	PROPER	SIZE	DER
ROE	1,000000	0,049665	-0,023488	-0,277288
PROPER	0,049665	1,000000	0,501208	-0,097352
SIZE	-0,023488	0,501208	1,000000	0,249880
DER	-0,277288	-0,097352	0,249880	1,000000

Source: Output E-views 13 (data processed by researchers, 2025).

Based on **Table 4**, the results show that the value of each variable is below 0,80 which means that there is no multicollinearity in this study.

Table 5. Heteroscedasticity test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-85,52563	71,67187	-1,193294	0,2349
PROPER	0,195849	0,904188	0,216602	0,8289
SIZE	3,023999	2,388492	1,266071	0,2077
DER	-0,647032	0,916049	-0,706330	0,4812

Source: Output E-views 13 (data processed by researchers, 2025)

Based on **Table 5**, the probability value of each variable shows that the value is above 0,05, which means that this study has no symptoms of heteroscedasticity.

Table 6 shows that the F-statistics probability value is 0,000 which indicates that the models in this study are appropriate for predicting financial performance based on green accounting, company size and leverage with corporate social responsibility moderating the effect.

Table 6. Hypothesis testing

Multiple Linear Regression Analysis			
Variable	Coefficient	Prob.	Conclusion
C	-3,125745	0,0203	
PROPER	3,853718	0,0233	H1 Accepted
SIZE	1,019000	0,0231	H2 Accepted
DER	-0,952522	0,5764	H3 Rejected
Moderating Regression Analysis			
C	-8,871757	0,0232	
PROPER	47,71268	0,0120	
SIZE	23,85956	0,0816	
DER	63,19558	0,0002	
CSR	5,733101	0,1874	
PROPER_CSR	-0,505312	0,0179	H4 Accepted
SIZE_CSR	-0,125704	0,4107	H5 Rejected
DER_CSR	-0,791763	0,0001	H6 Accepted
R-square	0,528771		
F-statistic	4,352426		
Prob(F-statistic)	0,000000		

Source: Output E-views 13 (data processed by researchers, 2025)

Based on the results of the hypothesis testing multiple linear regression, results are as follows:
 $ROE = -312,5745 + 3,853718PROPER + 10,19000SIZE - 0,952522DER + e$

And the results of moderating regression analysis is as follows:

$ROE = -887,1757 + 47,71268PROPER + 23,85956SIZE + 63,19558DER + 5,733101CSR - 0,505312(PROPER*CSR) - 0,125704(SIZE*CSR) - 0,791763(DER*CSR) + e$

Hypothesis testing to determine the influence of each independent variable on financial performance (ROE) at a significance level of 5% ($\alpha=0,05$). Green accounting shown coefficient value of 3,853718 and has significant influence on financial performance, as shown probability value of 0,0233 less than significant level of 0,05 which indicate H1 is approved. According to the theory of legitimacy, companies that seek to obtain social acceptance by adjusting their activities to the values and norms that apply in society by implementing green accounting show responsibility for the environment to gain community legitimacy to increase public trust and have a positive impact on financial performance. In addition, this research is also consistent with the

signal theory that companies that are rated PROPER as a green accounting indicator give positive signals to investors regarding long-term commitments, thereby increasing investor interest and improving financial performance. The results of this research are same with the results of research by [Triwacananingrum and 'Alim \(2024\)](#), [Dewi and Muslim \(2022\)](#), [Leying and Xinpeng \(2020\)](#) and [Makhdalena \(2018\)](#), [Kurniawan and Ethika \(2024\)](#), [Endiana et al. \(2020\)](#), [Tuti and Sisdianto \(2024\)](#), [Nengzih \(2022\)](#) and [Mustofa and Murtanto \(2024\)](#) show that Green Accounting can have a significant positive impact on a company's Financial Performance. This means that the better the company's performance in environmental management, the higher the company's ability to generate net profit that can be attributed to shareholders, Companies with strong green accounting practices tend to experience cost efficiency, reduced waste, lower resource consumption, and increased operational productivity. Environmentally proactive companies also gain a reputation advantage that strengthens customer loyalty, supplier relationships, and investor interest. Therefore, the better the company's performance in environmental management, the greater its ability to generate sustainable profits attributable to shareholders. In capital-intensive industries such as raw materials, where exposure to environmental risks is high, green accounting not only fulfills compliance obligations, but also becomes a strategic tool to improve efficiency and competitiveness. Thus, the influence of green accounting on financial performance is not only regulatory but also strategic, reflecting the company's capacity to integrate environmental responsibility with long-term value creation.

As shown at **Table 6**, company size has coefficient value 1,019000 and probability value of 0,0231 less than significant value of 0,05, which indicating H2 approved. It means company size has significant influence on financial performance, because of large companies generally have advantages in terms of financial capacity, access to capital, and the ability to manage more complex resources than small companies. This supports the theory of legitimacy, where large companies more easily gain the trust of investors and creditors, thus minimizing funding costs and improving the efficiency of capital use of large-scale companies are more likely to gain legitimacy because the resources they have to carry out their social responsibilities and sustainability practices can improve the company's image in society, and increase the attractiveness for investors to invest capital and will ultimately improve the company's Financial Performance. In accordance with signal theory, where large companies give confidence signals to investors regarding their ability to survive in the long term and manage risk effectively. This contributes to the improvement of the company's financial performance, as they have more resources to innovate, expand the market, and optimize profits. Large firms also tend to achieve economies of scale, allowing them to reduce per-unit production costs, invest in innovation, expand market reach, and optimize profit margins. Their stronger operational capacity enables them to leverage assets more effectively, negotiate better credit terms, and manage debt obligations with lower financial distress risk—factors that collectively enhance net income and ROE. These findings are consistent with research conducted by [Abubakar \(2018\)](#), [Kurniati et al \(2024\)](#), [Matei et al. \(2021\)](#), [Pratama and Mulyani \(2024\)](#), [Asandimitra and Muslimah \(2017\)](#), [Dermawan and Maryadi \(2019\)](#), [Noja et al. \(2023\)](#), [Putri et al. \(2024\)](#) which stated that Company Size has a significant positive effect on Financial Performance. These results show that the larger the size of the company, the better the financial performance achieved. By the increased efficiency, stronger market forces, and lower business risk to the combine, this study strengthens the argument that large firms have structural and strategic advantages that translate into superior financial outcomes, the larger the company, the more able it is to generate sustainable profitability and deliver better financial performance.

Based on the result of hypothesis test, leverage shown coefficient value $-0,952522$, and has probability value of $0,5764$ more than significant value of $0,05$, so H3 rejected. Leverage variable did not show a significant effect on financial performance. This indicates that the use of debt, both in the short and long-term forms, does not directly affect the company's ability to generate profits for shareholders. It can be explained by the characteristics of the basic materials sector industry which tends to be capital-intensive and dependent on long-term investment, where financing structures that rely on debt are a common practice in this industry due to the high need for fixed assets, long project cycles, and continuous investment in machinery, technology, and environmental compliance. Because using debt is a structural necessity rather than a strategic choice, fluctuations in leverage tend not to create meaningful differences in profitability. In other words, within this industry, both high- and low-leverage firms may still generate similar financial outcomes because profitability is more strongly driven by commodity prices, production efficiency, and operational scale rather than financing structure. From a signaling theory perspective, leverage can send conflicting signals to investors. On one hand, debt may indicate confidence in future cash flows; on the other, it may signal increased financial risk due to higher interest obligations. In industries with high revenue volatility and heavy regulatory oversight, these mixed signals may cause leverage to lose its predictive power over short-term profitability indicators such as ROE. Moreover, lenders in this sector often base lending decisions on the firm's asset collateral rather than its leverage ratio, making changes in leverage less influential on financial performance. The pecking order theory also supports these findings, suggesting that firms with strong internal financing prefer retained earnings over debt, meaning profitability is often determined by internal operational strength rather than external financing. The results of this study are in line with the findings of [Aramana et al., \(2023\)](#), [Asandimitra and Muslimah \(2017\)](#), [Hartanto and Susilowati \(2024\)](#) who stated that leverage does not have a significant influence on financial performance. Unlike sectors with flexible capital structures, firms in the basic materials industry experience profitability patterns that are largely insensitive to variations in leverage. Overall, this study reinforces the notion that leverage is not a primary determinant of financial performance in capital-intensive industries; instead, operational efficiency, environmental performance, and market conditions play a more dominant role in shaping ROE.

In this study, CSR doesn't have influence to financial performance which is shown by the value of probability as $0,1874$, more significance value $0,05$. In the moderation regression analysis, the role of CSR as a moderator was tested. The test shows that CSR significantly moderated the relationship between green accounting and financial performance, which is including on pure moderators. It shown with probability value of $0,0179$ less than significant value of $0,05$, it means that H4 is accepted. The coefficient value $-0,505312$ shows that CSR weakens the relation of green accounting to financial performance. This indicates that although CSR provides value for social legitimacy, the cost burden incurred from the implementation of CSR programs can reduce short-term financial gains. Although sustainability signals have been sent, investor responses have not been entirely positive due to concerns about cost efficiency and its impact on profits. In addition, although social legitimacy increases, the financial consequences of CSR activities have the potential to lower profits reflected in ROE. This confirms that social legitimacy provides more long-term benefits through reputation and sustainability, while in the short term it can depress financial performance due to additional costs. So, the results is accordance with the study by [Refalina et al. \(2024\)](#), [Christy and Tjun \(2024\)](#) and [Pratama and Mulyani \(2024\)](#), which is stated that the implementation of green accounting moderated by CSR has a negative effect on the company's financial performance, because the high environmental costs and social costs borne by the company have the potential to reduce direct profits. It can be concluded that although

CSR serves as a significant moderator, the negative direction of its influence suggests that the effectiveness of CSR in strengthening the relationship between green accounting and financial performance still depends on how the company manages the balance between implementation costs and the benefits of reputation gained.

The size of the company does not show a change in the influence on financial performance even though the level of CSR implemented is high or low. It shown at **Table 6**, coefficient value is -0,125704 and the probability value is 0,4107 higher than significant value 0,05, so H5 rejected. Based on legitimacy theory, large companies generally have strong public legitimacy, so additional legitimacy through CSR no longer has a significant impact on profitability. They generally possess a stronger legitimacy base due to their visibility, regulatory compliance capacity, and well-established reputations. Because legitimacy is already high, additional legitimacy derived from CSR activities does not create significant marginal benefits in profitability. CSR, in this context, becomes more of a legitimacy maintenance mechanism rather than a profitability enhancing strategy. This reinforces [Suchman \(1995\)](#), view that organizations with strong legitimacy status tend to use CSR symbolically to maintain social acceptance rather than strategically enhance financial outcomes. Similarly, based on signalling theory, CSR is expected to provide a positive signal to investors regarding the company's commitment to sustainability. However, for large companies, the information value of CSR signals is diluted because the size of the company itself already serves as a signal of strong long-term stability, risk management capabilities, and viability. As a result, CSR is considered a normative or compliance-driven activity rather than a typical strategic signal that improves financial performance. Investors can also assume that CSR is just a standard requirement for large companies, reducing its additional signalling effect. Although CSR has not been shown to significantly moderate the relationship between company size and financial performance, its role can still be categorized as moderation homologation moderation ([Baron and Kenny, 1986](#); [Jaccard and Turrisi, 2003](#); [Park and Yi, 2023](#); [Sharma et al., 1981](#)). In this context, CSR does not statistically change the direction or strength of key relationships, but it nonetheless serves to improve the quality of the conceptual relationship between company size and financial performance. CSR as a homologate plays a role in maintaining the consistency of these positive relationships through social legitimacy and the reputation of large companies that are active in social responsibility. In other words, CSR does not significantly strengthen relationships in empirical testing, but it nonetheless serves as a supporting element that maintains the stability and positive direction of the relationship between company size and financial performance.

CSR also has been shown to be significant in moderating the relationship between leverage and financial performance as a pure moderators. Based on the results hypothesis test, probability value shown 0,0001 less than significant value of 0,05, so H6 is accepted. The coefficient value -0,791763 shows that CSR weaknesed the influence of leverage to financial performance. However, results of this study show that CSR plays a significant role as a moderator in the relationship between leverage and financial performance, with a negative coefficient indicating that CSR weakens the influence of leverage on ROE. High leverage can be a dual signal for investors, which is to describe business expansion but also pose financial risks due to large interest expenses. CSR is supposed to serve as a positive signal and legitimacy tool that balances those risks by demonstrating corporate social responsibility. However, the cost of implementing CSR programs adds to the financial burden for companies that already have high debt obligations, thereby reducing profitability. From the legitimacy theory perspective, CSR should enhance corporate legitimacy and reduce stakeholder concerns. However, in highly leveraged firms, the reputational benefits of CSR are insufficient to offset the financial pressures created by high debt

servicing costs. Instead of being perceived as a mitigating signal, CSR expenditures are interpreted as additional resource commitments that may further strain the company's cash position. Thus, investors may view CSR spending under high leverage not as a value-enhancing strategy but rather as a misallocation of resources, ultimately reducing the company's return on equity. This is consistent with previous findings Putri et al. (2024) and Refalina et al. (2024), it is shown that CSR moderates the relationship between green accounting and leverage on financial performance, although the direction of the influence can be positive or negative depending on the industry context. So, when CSR is high in a company, it will weaken the influence of leverage on financial performance.

4. CONCLUSION

This study concludes that green accounting and company size have a significant positive effect on financial performance, while leverage does not show a direct influence on ROE in basic materials companies. These findings indicate that environmental performance efficiency and firm capacity play a more dominant role in driving profitability than capital structure. The results are consistent with legitimacy and signalling theories, where higher PROPER ratings and larger firm size strengthen stakeholder trust and convey positive signals regarding long-term stability. Furthermore, CSR plays a moderating role by weakening the relationship between green accounting and leverage on financial performance, while acting as a homologue moderator in the relationship between company size and financial performance. This moderating pattern reinforces prior evidence that sustainability related disclosures do not always enhance short term profitability and may impose cost pressures that dilute financial outcomes (Dewi and Muslim, 2022; Nengzih, 2022; Mustofa and Murtanto, 2024)

From a practical perspective, firms are encouraged to strengthen environmental management practices, optimize asset utilization, and strategically design CSR programs to align sustainability objectives with long-term financial resilience rather than short-term profit maximization. Managers should ensure that CSR implementation is efficiency oriented to avoid excessive financial burdens, particularly in highly leveraged firms. This study is limited to basic materials companies listed on the Indonesia Stock Exchange, which may restrict generalizability. Future research is recommended to expand cross-sector or cross-country analysis and incorporate alternative sustainability proxies such as ESG ratings or external assurance to capture broader sustainability quality. Further studies may also explore governance quality, environmental risk exposure, or managerial efficiency as moderating or mediating variables, as suggested in recent sustainability accounting literature.

5. REFERENCES

- Abubakar, A. (2018). Effect of firms characteristics on financial performance of listed insurance companies in Nigeria. *African Journal of History and Archaeology*, 3(1), 1–9.
- Adikasiwi, V., Widiatmoko, J., and Indarti, M. G. K. (2024). Pengaruh green accounting dan sustainability report terhadap kinerja keuangan perusahaan (studi pada perusahaan manufaktur yang terdaftar di BEI). *Jurnal Riset Akuntansi Politala*, 7 No 2(2), 2715–4610.
- Amalia, A. N., and Khuzaini. (2021). Pengaruh ukuran perusahaan, leverage dan struktur modal terhadap kinerja keuangan. *Jurnal Ilmu Dan Riset Manajemen*, 10(5), 1–17.
- Aramana, D., Hasan, M., Soefi, R., and Nasruddin. (2023). Pengaruh leverage terhadap return on equity pada perusahaan hotel, restoran dan pariwisata yang terdaftar di Bursa Efek

- Indonesia. *Jurnal Ekonomika Manajemen, Akuntansi Dan Perbankan Syari'ah*, 12(2), 42–55.
- Asandimitra, N., and Muslimah, M. (2017). Capital structure, CSR disclosure, leverage, firm size and financial performance in Indonesia. *International Journal of Empirical Finance*, 5(3), 139–150.
- Atiqah, Akbari, P. N., and Rahma, Y. (2023). The impact of corporate social responsibility disclosure and company size on company financial performance: The role of intellectual capital as moderating variable. *SAR (Soedirman Accounting Review): Journal of Accounting and Business*, 08(01), 118–135.
- Baron, R. M., and Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research. conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173–1182.
- Basuki, A. T., and Prawoto, N. (2021). *Analisis Data Panel Dalam Penelitian Ekonomi Dan Bisnis (Dilengkapi dengan Penggunaan Eviews)* (Pertama).
- Bougie, R., and Sekaran, U. (2020). *Research Methods For Business (A Skill Building Approach)* (8th ed.). Wiley.
- Brigham, E. F., and Houston, J. F. (2019). *Fundamentals of Financial Management* (Fifteenth). Cengage Learning
- Christy, Y., and Tjun, L.T. (2024). Green accounting and sustainable corporate performance: Environmental performance as a moderating variable. *Jurnal ASET (Akuntansi Riset)*, 16(2) 321-332.
- Dermawan, E. S., and Maryadi, A. (2019). Pengaruh ukuran perusahaan, financial leverage, dan liquidity terhadap kinerja keuangan. *Jurnal Paradigma Akuntansi*, 1(3), 572.
- Dewi, S. F., and Muslim, A. I. (2022). Pengaruh penerapan Corporate Social Responsibility (CSR) dan green accounting terhadap kinerja keuangan. *Jurnal Akuntansi Indonesia*, 11(1), 73.
- Dita, E. M. A., and Ervina, D. (2021). Pengaruh green accounting, kinerja lingkungan dan ukuran perusahaan terhadap financial performance. *JFAS: Journal of Finance and Accounting Studies*, 3(2), 72–84.
- Elkington, J. (2013). Enter the triple bottom line. *The Triple Bottom Line: Does It All Add Up*, 1(1986), 1–16.
- Endiana, I. D. M., Dicriyani, N. L. G. M., Adiyandnya, M. S. P., and Putra, I. P. M. J. S. (2020). The effect of green accounting on corporate sustainability and financial performance. *Journal of Asian Finance, Economics and Business*, 7(12), 731–738.
- Fahmi, I. (2017). *Analisis Laporan Keuangan* (6th ed.). Alfabeta.
- Fahmi, I. (2020). *Analisis Laporan Keuangan* (7th ed.). Alfabeta.
- Fauzy, R. A., Rakhmawati, A., Lestari, H. S., and Margaretha, F. (2023). The effect of CSR and leverage on financial performance in manufacturing companies of Indonesia. *International Journal of Engineering Technologies and Management Research*, 10(2).
- Ghozali, I. (2018). *Aplikasi Analisis Multivariate dengan Program IBM SPSS 25*. Badan Penerbit

Universitas Diponegoro.

- Global Reporting Initiative. (2021). Consolidated Set of GRI Standards. In *Global Reporting Initiative (GRI)*.
- Gujarati, D. N. (2012). *Dasar-Dasar Ekonometrika* (Edisi 5.). Salemba Empat.
- Hartanto, M. C., and Susilowati, C. (2024). Pengaruh corporate social responsibility, leverage, dan ukuran perusahaan terhadap kinerja keuangan. *Measurement: Jurnal Akuntansi*, 18(3), 164–176.
- Hasti, W. W., Maryani, M., and Makshun, A. (2022). Pengaruh leverage, struktur modal, dan ukuran perusahaan terhadap kinerja keuangan pada perusahaan sektor pertambangan. *Reviu Akuntansi, Manajemen, Dan Bisnis*, 2(2), 139–150.
- Hermawansah, A. A. M., and Amanah, L. (2023). Lailatul amanah Sekolah Tinggi Ilmu Ekonomi Indonesia (STIESIA) Surabaya. *Jurnal Ilmu Dan Riset Akuntansi*, 12(7).
- Higgins, R. C. (2016). Analysis for Financial Management Eleventh Edition. In *McGraw-Hill Education*.
- Jaccard, J., and Turrisi, R. (2003). Interaction Effects In Multiple Regression. In *SAGE Publications* (2nd Editio). Sage Publication, Inc.
- Jung, J. C., and Im, J. (2023). How does social trust affect corporate financial performance? The mediating role of corporate social responsibility. *Business Ethics, Environment and Responsibility*, 32(1), 236–255.
- Kasmir. (2019). *Analisis Laporan Keuangan* (Revisi). PT Rajagrafindo Persada.
- Kurniati et al., (2024). Good corporate governance mechanisms, company size, and company's growth on company's financial performance. *Jurnal ASET (Akuntansi Riset)*, 16(1), 013-024.
- Kurniawan, M. P., and Ethika. (2024). Pengaruh pengungkapan emisi karbon dan biaya lingkungan terhadap kinerja keuangan. *Bandung Conference Series: Accountancy*, 4(1), 54–61.
- Lako, A. (2019). *Conceptual Framework of Green Accounting*.
- Leying, L., and Xinpeng, X. (2020). Social responsibility and financial performance of electric power enterprises. *Journal of Asian Research*, 4(3), 60–70.
- Makhdalena, M. (2018). Pengaruh blockholders ownership, firm size dan leverage terhadap kinerja keuangan perusahaan. *EKUITAS (Jurnal Ekonomi Dan Keuangan)*, 18(3), 277–292.
- Matei, F. B., Boboc, C., and Ghiță, S. (2021). The relationship between corporate social responsibility and financial performance in romanian companies. *Economic Computation and Economic Cybernetics Studies and Research*, 55(3), 297–314.
- Mustofa, A. J. G., and Murtanto. (2024). Pengaruh green accounting, environmental performance, good corporate governance, leverage, dan ukuran perusahaan terhadap financial performance. *Ekonomi Digital*, 2(2), 97–108.
- Nagari, P. M., Nugroho, T. R., and Setiono, H. (2019). Pengaruh corporate social responsibility terhadap profitabilitas dan dampaknya terhadap nilai perusahaan sektor pertambangan di Bursa Efek Indonesia Tahun 2016-2018. *Prive*, 2(2), 90–105.

- Nengzih, N. (2022). Carbon emissions intensity and environmental cost effect to corporate financial performance. *Jurnal ASET (Akuntansi Riset)*, 14(2), 245–254.
- Noja, G. G., Cristea, M., Pirtea, M. G., Panait, M., Dracea, R. M., and Abrudan, D. (2023). Drivers of firms' financial performance in the energy sector: A comparative approach between the conventional and renewable energy fields. *Engineering Economics*, 34(2), 205–222.
- Park, S.-J., and Yi, Y. (2023). Decomposing main effects in moderated regression models. *Journal of Business Research*, 157, 1–8.
- Pratama, Y. N., and Mulyani, S. D. (2024). Pengaruh akuntansi hijau, kinerja lingkungan dan likuiditas terhadap profitabilitas dengan ukuran perusahaan sebagai variabel moderasi. *Jurnal Ekonomi Trisakti*, 4(1), 595–604.
- Putri, I. W. H., Widiastara, A., and Murwani, J. (2024). Pengaruh green accounting, kinerja lingkungan terhadap kinerja keuangan dengan corporate sosial responsibility sebagai variabel moderasi (studi empiris pada perusahaan pertambangan yang terdaftar di BEI periode tahun 2019-2022). *Seminar Inovasi Manajemen Bisnis Dan Akuntansi (SIMBA) 6, September*.
- Ramadhan, C. B., Meliana, Y., Jariyah, D. S. A., and Pandin, M. Y. R. P. (2024). Pengaruh praktik akuntansi karbon dan efisiensi energi terhadap keberlanjutan bisnis (studi pada PT Bumi Resources di BEI periode 2019-2022). *INNOVATIVE: Journal Of Social Science Research*, 4(3), 15005–15014.
- Refalina, A., Hamidi, M., and Rahim, R. (2024). Pengaruh green accounting, kinerja lingkungan, dan leverage, terhadap kinerja keuangan yang dimoderasi oleh corporate social responsibility. *Jurnal Informatika Ekonomi Bisnis*, 6(3), 547–554.
- Sadiku, M. N. O., Ashaolu, T. J., Adekunle, S. S., and Musa, S. M. (2021). Green accounting: A primer. *International Journal Of Scientific Advances*, 2(1).
- Sandrawan, I. G. F. (2021). BAB I pengaruh CSR terhadap kinerja manajemen dan kinerja keuangan pada perusahaan sector basic material yang terdaftar pada BEI tahun 2019-2020. 1–7.
- Sari, N. K., and Mahardika, D. P. K. (2023a). Investigasi aktivitas lindung nilai, ukuran perusahaan dan leverage terhadap kinerja keuangan. *Jurnal Informatika Ekonomi Bisnis*, 5, 409–414.
- Sari, N. K., and Mahardika, D. P. K. (2023b). Investigasi aktivitas lindung nilai, ukuran perusahaan dan leverage terhadap kinerja keuangan. *Jurnal Informatika Ekonomi Bisnis*, 5, 409–414.
- Sari, Y. R., and Setyaningsih, N. D. (2023). Pengaruh good corporate governance, struktur modal dan ukuran perusahaan terhadap kinerja keuangan perusahaan pada perusahaan properti dan real estate. *Jurnal Ilmiah Manajemen, Ekonomi, and Akuntansi (MEA)*, 7(2), 1165–1183.
- Șerban, R. A., Mihaiu, D. M., Herciu, M., and Ogorean, C. (2023). A sectoral-based approach to the link between financial performance and sustainability. *Studies in Business and Economics*, 18(1), 367–377.
- Sharma, S., Durand, R. M., and Gur-Arie, O. (1981). Identification and analysis of moderator variables. In *Journal of Marketing Research (1981)* 18(3) 291.
- Shodiqoh, A. I., Sanosra, A., Cahyono, D., Qomariah, N., and Jember, U. M. (2024). Journal of

economics, finance and management studies the influence of corporate social responsibility and good corporate governance on financial performance in basic industry and chemical sector companies listed on the Indonesian Stock Exchange. *Journal of Economics, Finance and Management Studies*, Volume 07(01 January 2024), 660–667.

Spence, M. (2002). Signaling in retrospect and the informational structure of markets. In *The American Economic Review* (Vol. 92, Issue 3).

Suchman, M. C. (1995). Managing legitimacy: Strategic and innovative approaches. *Academy of Management Review*, 20(3), 571–610.

Tarigan, A. M. (2024). Pengaruh Kinerja lingkungan dan biaya lingkungan terhadap kinerja keuangan dengan leverage sebagai variabel intervening. *Anggaran : Jurnal Publikasi Ekonomi Dan Akuntansi*, 2(2), 209–220.

Triwacananingrum, W., and 'Alim, N. (2024). Green accounting and different perspective of financial performance. *EL MUHASABA: Jurnal Akuntansi (e-Journal)*, 15(2).

Tuti, R., and Sisdiyanto, E. (2024). *Peran Green Accounting Dalam Meningkatkan Efisiensi Energi dan Pengelolaan Limbah*. 1(5)(November), 8697–8707. jicn: Jurnal Intelek dan Cendekiawan Nusantara.

Wulandari, A. A., and Lestari, I. R. (2024). Pengaruh green accounting , leverage, dan struktur modal terhadap financial performance. *Journal of Development Economics and Digitalization, Tourism Economics*, 1(2), 137–149.