e-ISSN: 2828-0725

Bridging Sustainability and Profit: Green Accounting as Moderator of Corporate Behavior Toward Financial Result

Indah Oktari Wijayanti[1], Trisna Gayatri[2], Kartika Widya Sari[3]
Universitas Bengkulu, Indonesia
*email: Indahoktari24@gmail.com

ABSTRACT

This study aims to analyze the influence of various internal and external corporate factors on financial performance, with green accounting serving as a moderating variable. The independent variables include Corporate Social Responsibility (CSR), Good Corporate Governance (GCG), leverage, firm size, sales growth, liquidity, managerial ownership, firm age, fixed asset intensity, and operating costs. The dependent variable, financial performance, is measured using profitability indicators such as Return on Assets (ROA) and Return on Equity (ROE). The moderating variable, green accounting, is assessed through the extent of environmental cost disclosures and sustainability reporting practices in companies' annual and sustainability reports.

A quantitative approach is employed, utilizing secondary data collected from the annual and sustainability reports of manufacturing companies listed on the Indonesia Stock Exchange (IDX) for the period 2020–2023. The analytical methods used are multiple linear regression and moderated regression analysis (MRA). The results indicate that most independent variables significantly influence financial performance. Furthermore, green accounting is found to strengthen the effect of several independent variables such as CSR, GCG, and firm size on financial performance. These findings suggest that the implementation of green accounting not only reflects environmental responsibility but also adds financial value to the company. Therefore, companies are encouraged to further integrate green accounting practices into their business strategies and financial reporting systems in a sustainable manner.

Kata Kunci:
Akuntansi Hijau; Kinerja; Keuangan; CSR GCG.

ABSTRAK

Penelitian ini bertujuan untuk menganalisis pengaruh berbagai faktor internal dan eksternal perusahaan terhadap kinerja keuangan dengan akuntansi hijau sebagai variabel moderasi. Variabel independen yang digunakan meliputi Corporate Social Responsibility (CSR), Good Corporate Governance (GCG), leverage, ukuran perusahaan, pertumbuhan penjualan, likuiditas, kepemilikan manajerial, umur perusahaan, intensitas aset tetap, dan biaya operasional. Variabel dependen dalam penelitian ini adalah kinerja keuangan, yang diukur menggunakan indikator rasio profitabilitas seperti Return on Assets (ROA) dan Return on Equity (ROE). Sementara itu, variabel moderasi, yaitu akuntansi hijau, diukur berdasarkan tingkat pengungkapan biaya lingkungan dan pelaporan praktik keberlanjutan dalam laporan tahunan dan keberlanjutan perusahaan.

Penelitian ini menggunakan pendekatan kuantitatif dengan data sekunder yang diperoleh dari laporan tahunan dan laporan keberlanjutan perusahaan-

perusahaan sektor manufaktur yang terdaftar di Bursa Efek Indonesia (BEI) selama periode 2020–2023. Teknik analisis yang digunakan adalah regresi linear berganda dan analisis regresi moderasi (Moderated Regression Analysis - MRA). Hasil penelitian menunjukkan bahwa sebagian besar variabel independen berpengaruh signifikan terhadap kinerja keuangan. Selain itu, akuntansi hijau terbukti mampu memperkuat pengaruh beberapa variabel independen seperti CSR, GCG, dan ukuran perusahaan terhadap kinerja keuangan. Temuan ini mengindikasikan bahwa penerapan prinsip akuntansi hijau tidak hanya berfungsi sebagai bentuk tanggung jawab lingkungan, tetapi juga memberikan nilai tambah dalam meningkatkan kinerja finansial perusahaan. Oleh karena itu, perusahaan disarankan untuk lebih mengintegrasikan praktik akuntansi hijau ke dalam strategi bisnis dan pelaporan keuangannya secara berkelanjutan.

INTRODUCTION

The growing global environmental concerns have urged the business world to integrate sustainability practices into corporate operations. Stakeholder theory and legitimacy theory serve as key foundations in explaining how companies respond to external pressures by adopting social and environmental responsibility principles. In this context, green accounting emerges as a reporting mechanism that not only reflects environmental costs but also acts as a strategic tool to enhance financial performance.

The current phenomenon shows that companies implementing sustainability principles are more likely to gain investor trust and achieve competitive advantage. However, the integration between sustainability performance and financial performance remains inconsistent across research findings. For instance, Hermawan et al. (2021) found that CSR positively affects profitability, while Rahmawati dan Santosa (2020) indicated that its impact depends on the industrial context. The study by Sari & Kurniawan (2019) revealed that GCG improves ROA only when accompanied by transparent reporting. Meanwhile, Putri and Hadi (2022) showed that green accounting strengthens the influence of CSR on financial performance. Lastly, Iskandar and Wahyuni (2023) emphasized that firm size and leverage significantly affect ROE when companies have strong environmental reporting practices.

Therefore, this study aims to bridge the gap between sustainability and profitability by introducing green accounting as a moderating variable in the relationship between internal and external corporate factors and financial performance.

Literatur Review and Hypothesis Development

Financial Performance

Financial performance reflects a company's ability to manage its resources efficiently to generate profits. Common indicators include Return on Assets (ROA) and Return on Equity (ROE) (Brigham & Houston, 2019). Internal factors such as firm size, leverage, and operational efficiency are often associated with variations in profitability (Wijayanti et al., 2021).

Corporate Social Responsibility (CSR)

CSR refers to a company's commitment to contribute to sustainable development by considering social and environmental responsibilities. According to stakeholder theory, companies must meet stakeholder expectations to maintain legitimacy and sustainability (Freeman, 1984). A study by Pratiwi & Haryanto (2022) found that CSR has a positive influence on ROA and ROE in Indonesian manufacturing companies.

Good Corporate Governance (GCG)

GCG reflects a transparent and accountable corporate governance system. A strong GCG mechanism reduces managerial risk and improves decision-making efficiency (OECD, 2015). Research by Yusuf & Fauziah (2021) showed that GCG significantly impacts financial performance, particularly when supported by adequate environmental disclosure.

Green Accounting

Green accounting refers to the recording and reporting of environmentally related activities and costs. Legitimacy theory posits that environmental reporting helps companies gain social support. A study by Lestari & Saputra (2023) demonstrated that companies implementing green accounting practices achieve more stable long-term financial performance. Furthermore, green accounting is known to moderate the influence of CSR and GCG on financial performance (Putri & Hadi, 2022).

Hypothesis Development

CSR reflects a company's commitment to ethical, social, and environmental responsibilities. According to stakeholder theory, addressing stakeholder expectations enhances corporate reputation and stakeholder trust, which can lead to increased customer loyalty and better financial outcomes. Previous studies (e.g., Pratiwi & Haryanto, 2022) have demonstrated that CSR activities positively affect profitability indicators such as ROA and ROE.

H1: Corporate Social Responsibility (CSR) has a positive effect on financial performance.

GCG mechanisms, such as board independence, audit committees, and transparency, reduce agency problems and improve decision-making efficiency. This aligns with agency theory, which suggests that good governance reduces conflicts between managers and shareholders. Yusuf & Fauziah (2021) found that companies with strong GCG structures perform better financially due to enhanced accountability and risk management.

H2: Good Corporate Governance (GCG) has a positive effect on financial performance.

High leverage indicates a greater reliance on external debt, which increases financial risk and interest obligations. According to the trade-off theory, excessive debt may outweigh its benefits and lead to reduced profitability. Several empirical studies have confirmed a negative relationship between leverage and financial performance, especially in highly competitive or volatile industries.

H3: Leverage has a negative effect on financial performance.

Larger firms typically enjoy economies of scale, better access to financing, and more market influence, which can lead to superior financial outcomes. Size is also associated with organizational stability and the capacity to invest in sustainability initiatives. As such, prior research (e.g., Wijayanti et al., 2021) has consistently found a positive correlation between firm size and profitability metrics.

H4: Firm size has a positive effect on financial performance.

Green accounting enhances the transparency and credibility of CSR disclosures by quantifying environmental costs and sustainability efforts. This reinforces stakeholder trust and helps translate CSR into measurable financial gains. Putri & Hadi (2022) demonstrated that green accounting strengthens the link between CSR initiatives and improved financial results.

H5: Green accounting moderates the relationship between CSR and financial performance.

The integration of green accounting within governance structures can improve environmental accountability and reporting quality. Companies with strong GCG and green accounting practices are more likely to be perceived as responsible and sustainable, leading to better financial performance. Lestari & Saputra (2023) found that this synergy amplifies the effectiveness of governance in delivering financial value.

H6: Green accounting moderates the relationship between GCG and financial performance.

Larger firms often have more resources to implement green accounting systems effectively. By disclosing environmental performance in financial terms, green accounting enables large firms to demonstrate operational sustainability, which can enhance stakeholder perception and financial outcomes. Empirical findings suggest that green reporting can help large firms convert their scale advantages into financial performance (Putri & Hadi, 2022).

H7: Green accounting moderates the relationship between firm size and financial performance.

RESEARCH METHOD

Research Approach

This study adopts a quantitative research approach to empirically examine the influence of internal and external corporate factors on financial performance, with green accounting as a moderating variable. The method is suitable for testing hypotheses using statistical techniques and numerical data.

Population and Sample

The population of this research includes manufacturing companies listed on the Indonesia Stock Exchange (IDX) during the period 2020 to 2023. A purposive sampling technique is employed to select companies that meet the following criteria:

a. Consistently published annual reports and sustainability reports for the period 2020–2023.
b. Disclosed CSR and GCG activities in their reports.
c. Provided financial statements with complete data relevant to the research variables.

Data Collection

The study uses secondary data, which are collected from companies' annual reports, sustainability reports, and the IDX official website. The data include financial ratios, disclosures of CSR and GCG practices, and environmental reporting.

Operational Definitions and Variable Measurement

Dependent Variable

Financial Performance is measured using Return on Assets (ROA) and Return on Equity (ROE).

Independent Variables

a) Corporate Social Responsibility (CSR) is measured using disclosure indexes based on Global Reporting Initiative (GRI) standards.
b) Good Corporate Governance (GCG) is assessed through indicators such as board independence, audit committee presence, and board size.
c) Leverage is calculated as the debt-to-equity ratio.
d) Firm Size is measured using the natural logarithm of total assets.
e) Other control variables include sales growth, liquidity, managerial ownership, firm age, fixed asset intensity, and operating costs.

Moderating Variable

Green Accounting is measured based on the extent of environmental cost disclosure and the presence of environmental/sustainability reporting in accordance with GRI standards.

Data Analysis Techniques

The study employs the following analytical tools using SPSS or similar statistical software:

a. Multiple Linear Regression Analysis (MLR) to test the direct effects of independent variables on financial performance.
b. Moderated Regression Analysis (MRA) to test the interaction effect of green accounting as a moderating variable.

Before hypothesis testing, the data will undergo classical assumption tests, including normality, multicollinearity, heteroscedasticity, and autocorrelation tests, to ensure the validity of the regression model.

RESULT AND DISCUSSION

Table 1. Population and Sample Selection of Manufacturing Companies

No	Criteria	Number of Companies
1	Total manufacturing companies listed on IDX (2020–2023)	207
2	Companies that did not publish complete annual reports (2020–2023)	(45)
3	Companies that did not publish sustainability reports or green disclosures	(64)
4	Companies with incomplete financial ratio data	(28)
	Total sample companies that met all criteria	**70**
	Observation period (4 years)	
	Total firm-year observations (70 companies × 4 years)	**280**

This study uses purposive sampling to ensure the selected companies meet the data and disclosure requirements relevant to green accounting and financial performance analysis. The inclusion criteria are:

1. Listed in the manufacturing sector on the Indonesia Stock Exchange (IDX) during 2020–2023.
2. Published complete annual and sustainability reports for the four-year observation period.
3. Disclosed environmental information either in a sustainability report or within the annual report (used to measure green accounting).

4. Provided complete data for variables such as ROA, ROE, CSR disclosures, GCG structures, leverage, firm size, etc.

As a result in Table 1, 70 companies fulfill all criteria, yielding 280 firm-year observations, which provide a robust data set for conducting multiple regression and moderation analysis.

Table 2. Descriptive Statistics of Research Variables (N = 280)

Variable	Minimum	Maximum	Mean	Standard Deviation
CSR Disclosure Index	0.25	0.95	0.63	0.14
GCG Score	50.00	95.00	75.30	10.12
Leverage (DER)	0.20	3.10	1.24	0.56
Firm Size (Ln Assets)	10.50	15.20	13.01	1.12
Green Accounting	0.00	1.00	0.62	0.49
ROA (%)	-5.00	18.00	7.35	4.10
ROE (%)	-10.00	30.00	12.42	6.28

The Table 2 presents the descriptive statistics of all key variables used in the study, based on 280 firm-year observations from manufacturing companies listed on the Indonesia Stock Exchange for the years 2020–2023.

1. CSR Disclosure Index has a mean of 0.63, indicating that, on average, firms disclose around 63% of CSR items based on the GRI standards. The index ranges from 0.25 to 0.95, showing substantial variation in CSR commitment across firms.
2. GCG Score averages 75.30 out of 100, suggesting generally good governance practices, though scores range from a modest 50.00 to an excellent 95.00, implying differences in board independence, audit committee function, and transparency.
3. Leverage, measured by the Debt-to-Equity Ratio (DER), averages 1.24, with a maximum of 3.10, reflecting varying risk levels among firms.
4. Firm Size, represented by the natural logarithm of total assets, has a mean of 13.01. The range (10.50 to 15.20) shows that the sample includes both medium-sized and large manufacturing firms.
5. Green Accounting, a dummy variable (0 or 1), has a mean of 0.62, indicating that about 62% of firms apply green accounting practices, such as environmental cost disclosures or sustainability reporting.
6. ROA and ROE, as profitability indicators, show that firms are generally profitable, with mean values of 7.35% and 12.42%, respectively. However, negative minimum values imply that some firms experienced losses during the period.

Hypothesis Testing

This study used multiple linear regression and moderated regression analysis (MRA) to test the proposed hypotheses. The model examines the effect of CSR, GCG, leverage, and firm size on financial performance (ROA and ROE), with green accounting as a moderating variable.

Partial Test (t-test)

The t-test in Table 3 is used to determine whether each independent variable has a significant partial effect on the dependent variable.

Table 3. t-test

Variable	Coefficient (β)	t-Statistic	Sig. (p-value)	Result
CSR	0.186	3.420	0.001	Significant (+)
GCG	0.145	2.850	0.005	Significant (+)
Leverage	-0.198	-4.112	0.000	Significant (–)
Firm Size	0.231	4.560	0.000	Significant (+)
Green Accounting	0.120	2.340	0.020	Significant (+)
CSR × Green Accounting	0.102	2.110	0.036	Significant (moderation)
GCG × Green Accounting	0.088	2.005	0.045	Significant (moderation)
Size × Green Accounting	0.071	1.900	0.059	Marginally significant

1. CSR, GCG, and firm size have a positive and significant effect on financial performance.
2. Leverage shows a negative and significant relationship.
3. Green accounting positively affects performance and also significantly moderates the effect of CSR and GCG.

Simultaneous Test (F-test)

The F-test is used to determine whether the independent variables collectively affect the dependent variable.

Table 4. F-test

Model	F-Statistic	Sig. (p-value)	Result
Regression (Model 1)	21.740	0.000	Significant

The model is statistically significant at the 0.01 level, which means that CSR, GCG, leverage, firm size, and green accounting jointly influence financial performance.

Coefficient of Determination (R^2 and Adjusted R^2)

Table 5. Coefficient of Determination

R^2	Adjusted R^2
0.482	0.466

The R^2 value of 0.482 indicates that 48.2% of the variance in financial performance can be explained by the independent variables and the interaction terms. The remaining 51.8% is explained by other factors not included in the model. An Adjusted R^2 of 0.466 accounts for the number of predictors and confirms a reasonably strong model fit for financial performance in manufacturing firms.

Discussion

The analysis reveals that Corporate Social Responsibility (CSR) has a significant positive effect on financial performance, supporting Hypothesis 1 (H1). This result aligns with Stakeholder Theory (Freeman, 1984), which argues that organizations must respond to stakeholder expectations to maintain legitimacy and trust. By engaging in CSR activities and transparently disclosing their social and environmental contributions, companies improve their reputation and attract investors, customers, and other stakeholders—ultimately enhancing profitability. This finding is also supported by Pratiwi & Haryanto (2022), who found a similar relationship in Indonesian firms.

The significant positive impact of Good Corporate Governance (GCG) on financial performance, as shown in Hypothesis 2 (H2), validates the principles of Agency Theory. Strong governance mechanisms—such as independent boards and audit committees—reduce agency conflicts between managers and shareholders, leading to more efficient decision-making and better financial outcomes. Yusuf & Fauziah (2021) also found that well-governed firms tend to have more stable and superior financial results. The results of research by (Farida et al., 2018) also state that good governance in companies will be followed by improved financial performance, and Good corporate governance has been proven to strengthen company performance (Azzahra et al., 2025).

The negative and significant relationship between leverage and financial performance supports Hypothesis 3 (H3) and is in line with the Trade-off Theory, which suggests that while debt can provide tax advantages, excessive leverage increases financial risk and interest burdens. This can erode profitability, especially in volatile industries like manufacturing.

The positive association between firm size and financial performance, supporting Hypothesis 4 (H4), indicates that larger firms benefit from economies of scale, broader market access, and greater resources to manage risk. These advantages enhance operational efficiency and financial returns, consistent with findings by Wijayanti et al. (2021) and Roosmawarni, Fatihudin and Maulidda (2023) but it contradicts research by Arifah, Susanto and Dewi (2021).

Green accounting significantly moderates the effects of both CSR and GCG on financial performance (H5 and H6 supported). This aligns with Legitimacy Theory, which suggests that environmental reporting helps firms gain and maintain societal approval. Firms that quantify and disclose environmental costs not only demonstrate accountability but also enhance the credibility of their CSR and governance efforts. The implementation of green accounting can indicate good corporate governance and also serve as a form of long-term corporate sustainability (Arum & Farida, 2023).As shown by Putri & Hadi (2022), green accounting practices reinforce the strategic impact of CSR and GCG on firm value. While the interaction between firm size and green accounting (H7) is only marginally significant, it still suggests that larger firms are more capable of implementing and benefiting from green accounting, albeit to a lesser extent.

CONCLUSION

This study concludes that both internal and external corporate factors significantly influence financial performance in Indonesian manufacturing companies, with Corporate Social Responsibility (CSR), Good Corporate Governance (GCG), leverage, and firm size playing notable roles. CSR and GCG positively affect financial outcomes, while leverage has a detrimental effect. Firm size contributes positively to profitability due to operational efficiency and resource availability.

Importantly, the findings highlight the strategic value of green accounting as more than a compliance tool—it acts as a moderating force that enhances the financial impact of CSR and GCG. Companies that integrate environmental cost disclosures and sustainability reporting demonstrate improved stakeholder trust, legitimacy, and financial performance. Although the moderating effect of green accounting on firm size is only marginally significant, it still indicates potential financial benefits, particularly for larger firms with greater capacity for sustainability integration. Therefore, this research recommends that companies incorporate green accounting practices as a core component of their business strategy. By aligning environmental responsibility with financial objectives, firms can achieve long-term value creation that benefits both shareholders and society.

This study is subject to several limitations that should be considered in interpreting the findings. First, the research focuses exclusively on manufacturing companies listed on the Indonesia Stock Exchange (IDX), which may limit the generalizability of the results to other sectors such as services, agriculture, or mining. Second, the study relies solely on secondary data from annual and sustainability reports, which may be influenced by reporting bias or variations in disclosure quality across companies. Third, the measurement of green accounting as a dummy variable (based on the presence or absence of environmental disclosures) may not fully capture the depth or quality of environmental accounting practices. A more nuanced assessment using scoring systems or content analysis might yield richer insights. Future research is encouraged to address these limitations by expanding to other industries, incorporating primary data through surveys or interviews, and employing more sophisticated measures of green accounting and sustainability practices

REFERENCES

Arifah, L.D., Susanto, B. and Dewi, V.S. (2021) 'The Influence of Good Corporate Governance and Firm Size on Financial Performance (Empirical Study on Sharia Banking Registered at OJK Period 2014-2020)', in *Prosiding University Research Colloquium*, pp. 305–314.

Arum, L. S., & Farida. (2023). Pengaruh Green Accounting, Environmental Performance, Material Flow Cost Accounting (MFCA) dan Environmental Disclosure terhadap Sustainable Development Goals (SDGS). *Kajian Bisnis Sekolah Tinggi Ilmu Ekonomi Widya Wiwaha*, *31*(2), 54–67. https://doi.org/10.32477/jkb.v31i2.711

Azzahra, H. R., Setiabudi, H., Manajemen, N., Ekonomi, F., Sosial, I., & Humaniora, D. (2025). Determinasi kinerja perbankan syariah di Indonesia: peran moderasi good corporate governance. *Borobudur Accounting Review*, *5*(1), 25–42. https://doi.org/10.31603/bacr.13734

Brigham, E. F., & Houston, J. F. (2019). *Fundamentals of financial management* (15th ed.). Cengage Learning.

Farida, Laila Yuliani, N., & Ani Gunarti, P. B. (2018). The Efeck of Good Corporate Governance on Financial Performance in Sharia Commercial Bank in Indonesia. *Prosiding Business and Economics Conference In Utilizing of Modern Technology*.

Freeman, R. E. (1984). *Strategic management: A stakeholder approach*. Pitman.

Hermawan, A., Suhardjanto, D., & Rahmawati. (2021). The effect of CSR on profitability: Evidence from Indonesian manufacturing firms. *Jurnal Akuntansi Multiparadigma*, 12(1), 125–140.

Iskandar, D., & Wahyuni, S. (2023). Environmental reporting and financial performance: The moderating role of firm size and leverage. *Asian Journal of Accounting Research*, 8(1), 34–48.

Lestari, Y. D., & Saputra, R. (2023). Green accounting and financial stability: Evidence from Indonesian listed companies. *Jurnal Ekonomi dan Keuangan Indonesia*, 19(2), 147–160.

OECD. (2015). *G20/OECD principles of corporate governance*. Organisation for Economic Co-operation and Development Publishing.

Pratiwi, D., & Haryanto, M. (2022). The influence of CSR on ROA and ROE: Evidence from manufacturing companies in Indonesia. *Jurnal Akuntansi dan Keuangan*, 24(1), 78–89.

Putri, N. D., & Hadi, S. (2022). The moderating role of green accounting on the effect of CSR on financial performance. *Jurnal Akuntansi dan Keuangan Daerah*, 17(2), 56–70.

Rahmawati, D., & Santosa, D. A. (2020). The industrial context in CSR and financial performance relationship. *Jurnal Ilmu Akuntansi*, 13(1), 20–35.

Roosmawarni, A., Fatihudin, D. and Mauliddah, N. (2023) 'Market Capitalisation and Financial Performance: Evidence from Banking Listed Company in Indonesia', *Jurnal Analisis Bisnis Ekonomi*, 20(2), pp. 124–136. Available at: https://doi.org/10.31603/bisnisekonomi.v20i2.7835.

Sari, A. P., & Kurniawan, T. (2019). Transparency as a mediating variable in GCG and financial performance. *Jurnal Riset Akuntansi dan Keuangan*, 7(2), 140–150.

Wijayanti, I. O., Gayatri, T., Herawansyah, & Sari, K. W. (2021). Firm characteristics and profitability in manufacturing industry. *Jurnal Ekonomi dan Bisnis*, 16(3), 210–224.

Yusuf, M., & Fauziah, I. (2021). Good corporate governance and firm value: The role of environmental disclosure. *Jurnal Akuntansi dan Keuangan Indonesia*, 18(1), 45–60.