

# Green Accounting, CSR, and Financial Performance with Firm Size Moderation

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## Abstract

This study aims to examine the effect of green accounting and corporate social responsibility (CSR) on company financial performance, with company size as a moderating variable. This study is a quantitative study using a population of manufacturing companies listed on the Indonesia Stock Exchange (IDX) for the 2020-2023 period. The research sample was determined using a purposive sampling method, using certain criteria in sampling. The data used in this study are secondary data, namely data obtained indirectly through the website source [www.idx.co.id](http://www.idx.co.id). The research variables consist of independent variables, namely green accounting (X1) and CSR (X2), dependent variables, namely financial performance (Y), and moderating variables, namely company size. The green accounting variable is measured using the PROPER rating. The CSR variable is measured based on disclosure indicators in the Global Reporting Initiative (GRI) standards, while financial performance is measured through Return on Assets (ROA) and Return on Equity (ROE). The moderating variable, namely company size, is measured based on total assets owned. Based on a quantitative approach and purposive sampling technique, data analysis was conducted using multiple linear regression methods and processed using SPSS. The results of the study indicate that (1) green accounting has no effect on financial performance, (2) CSR has a positive effect on financial performance, (3) company size strengthens the relationship between green accounting and financial performance, and (4) company size strengthens the relationship between CSR and financial performance.

**Keyword:** green accounting; csr; financial performance; firm size

## 1. Introduction

In the era of globalization and increasingly fierce business competition, financial performance has become a key indicator of corporate sustainability. The manufacturing sector, particularly the chemical industry, has a significant environmental impact due to the use of hazardous chemicals and high energy consumption (Sari & Dwi, 2022). In the era of globalization and increasingly fierce business competition, financial performance has become a key indicator of corporate sustainability. The manufacturing sector, particularly the chemical industry, has a significant environmental impact due to the use of hazardous chemicals and high energy consumption (Cheng, 2025).

However, with increasing awareness of the environmental and social impacts of business activities, companies are no longer judged solely on profitability, but also on their responsibility to the environment and society (Dela, 2024). This has encouraged the implementation of green accounting and Corporate Social Responsibility (CSR) as sustainability strategies that can contribute to long-term corporate performance. Therefore, the implementation of green accounting is crucial for measuring and reporting environmental impact (Abubakr et al., 2024).

Several obstacles remain in the implementation of green accounting and CSR in Indonesia. Insufficiently stringent regulations and a lack of government incentives make many companies reluctant to allocate funds for sustainability programs (SSEK Law Firm, 2024). Furthermore, law enforcement against companies violating environmental regulations, such as illegal waste disposal and overexploitation of natural resources, remains inadequate (Handayani, 2025).

Various studies show that the implementation of green accounting and Corporate Social Responsibility (CSR) still faces various challenges, particularly in terms of costs, regulations, and the gap between large and small companies. Furthermore, inconsistencies in environmental impact reporting continue to be found, making it difficult for stakeholders to assess its effectiveness (Abubakr et al., 2024). Several studies indicate that the positive impact of green accounting and CSR implementation on financial performance is generally only visible after several years, often discouraging companies from investing in sustainable practices (Dela, 2024). Rahman (2022) revealed that companies implementing green accounting experienced a decline in short-term profit margins. Furthermore, research by Nugroho (2023) found that the positive impact of green accounting and CSR on financial performance was only felt after three to four years.

Although the trend of implementing green accounting and Corporate Social Responsibility (CSR) in Indonesia continues to grow, their implementation still faces significant gaps. Several cases of environmental violations by large manufacturing companies such as PT Indah Kiat Pulp and Paper Tbk, PT Krakatau Steel Tbk, and PT Toba Pulp Lestari Tbk demonstrate the weak implementation of sustainability principles in practice (WALHI, 2022). A report from the Ministry of Environment and Forestry (KLHK, 2023) indicates that green accounting practices are not yet fully effective. Research by Sudrajat and Purnomo (2023) highlights the lack of standardization and integration of environmental reporting systems with financial accounting systems. Previous research has shown variations in the relationship between green accounting, CSR, and financial performance. Wijayanti (2020) found a significant positive effect, Pratama and Sudrajat (2021) highlighted the role of company size, while Rahman et al.

(2022) and Kusumadewi and Hartono (2023) emphasized that this effect can be moderated by organizational factors. Therefore, this study aims to comprehensively analyze the influence of green accounting and CSR on financial performance with company size as a moderating variable in manufacturing companies listed on the Indonesia Stock Exchange.

## **2. Literature Review**

### **2.1 Theory of Legitimacy Theory**

The theory of legitimacy explains that the sustainability of a company depends on the extent to which the company meets the values, beliefs, and social norms that apply in its environment (Suchman, 1995). In the business world, legitimacy is gained not only through compliance with formal rules, but also by showing concern for people's expectations. Responsible companies must actively disclose information about their environmental and social performance to obtain support from stakeholders.

In the context of green accounting, the theory of legitimacy plays a role in encouraging companies to disclose environmental information as a form of responsibility and transparency. Companies that implement green accounting demonstrate a commitment to sustainability, which can ultimately increase public trust and reduce the risk of a legitimacy gap, a mismatch between corporate practices and social expectations. Meanwhile, Corporate Social Responsibility (CSR) is seen as a mechanism that strengthens the social contract between the company and the community. Consistent CSR activities can help companies gain and maintain their legitimacy, thereby increasing stakeholder support and strengthening business sustainability.

Overall, the theory of legitimacy provides a strong foundation for understanding the relationship between green accounting, CSR, and company size in building public image and trust. The larger the size of the company, the higher the expectations for the sustainability practices implemented. Therefore, the implementation of green accounting and CSR not only functions as a business strategy, but also as a means to maintain the company's legitimacy in the long term.

### **2.2 Stakeholder Theory**

The stakeholder theory put forward by Freeman (1984) emphasizes that companies must pay attention to the interests of all parties involved, both internal and external, because they can influence or be influenced by the company's goals. By maintaining a balance between stakeholder interests, companies can create sustainable value that supports the sustainability of their business. This approach evolved into a more holistic concept in management, where a company's success is measured not only by its financial performance, but also by its ability to meet social and environmental expectations.

The success of a company is highly dependent on its ability to accommodate the interests of stakeholders, including by providing financial and non-financial information in a transparent manner. Companies that maintain good relationships with stakeholders and demonstrate their responsibility to the environment tend to have more appeal to investors. This is because investors are more interested in investing in companies that have a good reputation for maintaining sustainability and social responsibility.

In the context of green accounting and CSR, stakeholder theory explains that the implementation of green accounting is a form of corporate transparency in managing environmental impacts, thereby increasing stakeholder trust. In addition, CSR serves as a strategic instrument to build closer relationships with stakeholders, improve reputation, and create shared value for the company and society. Thus, the implementation of green accounting and CSR not only meets regulatory demands, but also becomes an important strategy in strengthening the company's relationship with stakeholders.

### **2.3 Green Accounting**

According to Lako (2018), *green accounting* is an accounting process that integrates financial, social, and environmental transactions into a unified system. The primary objective is to provide comprehensive and relevant accounting information to support decision-making and the management of both economic and non-economic aspects. The concept emerged in response to the growing awareness of sustainability in business practices.

*Green accounting* involves not only the recording of environmental costs but also qualitative aspects, such as the disclosure of environmental information in a company's annual report. In line with the triple bottom line paradigm, it seeks to balance profit, people, and the planet. Its implementation includes several cost components, such as prevention costs, detection costs, internal failure costs, and external failure costs (Hansen & Mowen, 2018).

Regulatory support for green accounting continues to strengthen, as reflected in limited liability company laws, government regulations, and accounting standards emphasizing transparency in environmental reporting (Gray & Bebbington, 2020).

### **2.4 Corporate Social Responsibility (CSR)**

Corporate Social Responsibility (CSR) is a company's commitment to operate ethically, contribute to economic development, and improve the quality of life of employees, their families, and the wider community. This concept is based on the belief that companies have responsibilities that go beyond simply seeking profit, including obligations to stakeholders and the environment. Carroll (1991) developed a conceptual framework known as the CSR pyramid, which encompasses four dimensions of corporate responsibility: economic, legal, ethical, and philanthropic. Companies are not only expected to earn profits and comply with the law, but also to act ethically and make positive contributions to society. Therefore, CSR disclosure plays a crucial role in enhancing corporate transparency and accountability, as it reflects a commitment to sustainable development and social welfare (Gray and Bebbington, 2020). Overall, CSR serves as a strategic instrument for building stakeholder trust, strengthening a company's reputation, and creating shared value between the company and society.

## 2.5 Financial Performance

According to Brigham and Houston (2019), financial performance represents the company's ability to manage and utilize financial resources efficiently to generate profits and maintain stability over time. It reflects how effectively management converts assets into earnings while ensuring the company's liquidity, solvency, and profitability. Financial performance is the result achieved by management in optimizing asset utilization to obtain the maximum possible return. Similarly, Fahmi (2020) defines financial performance as an analytical process used to assess a company's compliance with financial principles and its effectiveness in implementing financial management policies. In general, financial performance serves as a key indicator of organizational success, providing valuable insights into how well a company achieves its economic objectives and sustains long-term value creation.

Financial performance reflects a company's ability to manage and utilize its resources effectively to generate profits and ensure long-term stability. According to Brigham and Houston (2019), profitability ratios such as *Return on Assets (ROA)* and *Return on Equity (ROE)* are key indicators for assessing management efficiency in using assets and equity to create earnings. Supporting this, Gitman and Zutter (2015) note that profit margin ratios including Gross Profit Margin (GPM), Operating Profit Margin (OPM), and Net Profit Margin (NPM) evaluate how efficiently sales are converted into different levels of profit. From the local perspective, Fahmi (2020) states that financial performance represents the company's success in applying financial management principles, while Rudianto (2023) emphasizes it as the result of management's effectiveness in utilizing assets to achieve optimal returns.

Financial performance is influenced by various internal and external factors. Internal factors include management strategy, investment decisions, operational efficiency, and innovation within the company. On the other hand, external factors such as macroeconomic conditions, government policies, interest rate fluctuations, and industrial competition also play an important role in determining the stability and profitability of a company. Therefore, companies that are able to adapt to market changes and continue to innovate will have an advantage in achieving sustainable financial performance.

## 2.6. Company Size

Company size is a fundamental concept in business studies that describes the scale and complexity of an organization. Brigham and Houston (2019) define company size as an indicator that reflects the size of a business entity based on total assets, annual sales, or the number of employees owned. This shows that the size of a company is not just a number, but also reflects a strategic capacity to manage resources and create economic value.

Measuring firm size can be conducted using several key indicators that reflect the company's operational scale, financial capacity, and organizational complexity. Brigham and Houston (2019) explain that total assets are one of the most widely used indicators, as they reflect a company's investment capacity, operational magnitude, and ability to generate future revenues. Similarly, annual sales represent the company's market competitiveness and the effectiveness of its sales strategies in sustaining growth. In addition, the number of employees serves as an indicator of organizational scale and production capacity, illustrating how labor

contributes to the company's overall operational efficiency (Rudianto, 2023). Together, these indicators provide a comprehensive view of a company's size, structure, and capability to compete within its industry.

Large and small companies have different characteristics in various aspects of operations. Large companies have an advantage in access to capital, technology, and extensive business networks, while small companies are more flexible and adaptive in decision-making. These differences affect the company's strategy, financial performance, and ability to implement sustainable practices such as green accounting and corporate social responsibility (CSR). In research on green accounting and CSR on financial performance, company size plays a role as a moderation variable. In the context of manufacturing companies on the Indonesia Stock Exchange for the 2020-2023 period, company size has become relevant due to digital transformation and economic challenges due to the pandemic, which further emphasizes its role in mediating sustainable business practices.

## **2.7 Empirical Review**

Several previous studies have examined the relationship *between* green accounting, corporate social responsibility (CSR), and financial performance, yet the findings remain inconclusive. Sudimas, et al. (2023) found that both green accounting and environmental performance had no significant effect on financial performance among manufacturing companies in the basic and chemical industry sectors, suggesting that environmental costs are still perceived as short-term burdens rather than strategic investments. CSR disclosure and corporate reputation have a significant positive influence on firm value, whereas the implementation of green accounting shows a weaker relationship with financial outcomes. This finding suggests that while companies' social responsibility initiatives and positive public image contribute directly to enhancing firm value, environmental accounting practices are still perceived as compliance obligations rather than strategic investments that generate financial benefits. Susilawati and Yusliza (2024) found similar results in their study on manufacturing companies, where CSR and corporate reputation significantly improved firm value, but the application of green accounting had an insignificant impact on profitability and market performance.

In contrast, Wardianda and Wiyono (2023) found a significant positive relationship between green accounting and financial performance in property and real estate companies, particularly when strengthened by good corporate governance. Supporting evidence was also provided by Albastiah and Sisdianto (2022) as well as Endiana et al. (2020), who confirmed that green accounting and CSR positively affect financial performance through improved customer loyalty and operational efficiency. Further insights were offered by Qatrunnada (2023), who decomposed green accounting into several components and examined its influence on financial performance among cement, chemical, and mining companies listed on the Indonesia Stock Exchange during 2017–2022. The study found that environmental performance and eco-friendly product initiatives had a significant positive effect on financial performance, indicating that companies engaging in sustainable practices tend to enhance profitability and stakeholder trust. However, environmental costs were found to have no

significant effect, suggesting that many firms still perceive such expenses as operational burdens rather than strategic investments that contribute to long-term value creation.

This result aligns with Ratusasi and Prastiwi (2021) who found a positive contribution of environmental performance to profitability, yet contrasts with Riyadh et al. (2020), who revealed a negative relationship between environmental accounting costs and financial performance measured by Return on Capital Employed (ROCE) among multinational companies. Moreover, Ma et al. (2023) found that CSR positively influences sustainable growth with green innovation acting as a mediating variable, while Pratama et al. (2022) reported that CSR had no significant effect on financial performance but liquidity showed a negative influence.

The inconsistency of previous findings highlights a research gap regarding the relationship between green accounting, corporate social responsibility (CSR), and financial performance. The variation in results may arise from contextual factors such as industry characteristics, research periods, geographical settings, firm size, and moderating variables like corporate governance. To address this gap, the present study examines the effect of green accounting *and* CSR on the financial performance of manufacturing firms listed on the Indonesia Stock Exchange (IDX) during 2020–2023, with firm size as a moderating variable. This research is significant because it provides updated empirical evidence within the Indonesian manufacturing sector industry vital to national economic growth yet increasingly pressured by environmental and social accountability. By incorporating firm size as a moderating variable, this study offers deeper insights into how organizational capacity and resource availability influence the effectiveness of environmental and social initiatives in enhancing financial outcomes. The findings are expected to inform policymakers, investors, and corporate managers in formulating sustainability strategies that balance environmental responsibility and profitability, thereby supporting the achievement of sustainable industrial development in Indonesia..

As discussed, studies of the relationship between green accounting, CSR, and financial performance with firm size moderation have produced mixed results. Therefore, the hypotheses are constructed as follows:

H1: Green accounting has a positive effect on financial performance

H2: Corporate social responsibility has a positive effect on financial performance

H3: Company size strengthens the influence of green accounting on financial performance

H4: Company size strengthens the influence of corporate social responsibility on financial performance

### **3. Material and Method**

#### **3.1 Design Study**

##### **Research Approach**

This study uses a quantitative approach with causal and descriptive associative research types. The quantitative approach was chosen because this research focuses on numerical and statistical data analysis to test the hypothesis proposed. In accordance with the opinions of Sugiyono and Lestari (2021), causality associative research aims to identify the cause-and-effect relationship between independent and dependent variables. In this study, green accounting and corporate social responsibility (CSR) play a role as independent variables, financial performance as a dependent variable, and company size as a moderation variable that is analyzed to see the extent of their influence in the relationship. This type of research was chosen because it allows objective measurement of the variables tested and produces data that can be analyzed statistically. This approach also allows generalization of research results to a wider population, so that the findings obtained have stronger validity. Using quantitative methods, this study aims to provide a deeper understanding of the relationship between sustainable business practices and corporate financial performance.

##### **Type and Source of Data**

The main source of data in this study is the annual report of manufacturing companies accessed from the official website of the Indonesia Stock Exchange (IDX) in [www.idx.co.id](http://www.idx.co.id). The annual report is an official document published by the company and includes information about financial statements, management reports, social responsibility reports, and other disclosures related to Green Accounting, CSR, financial performance, and company size.

##### **Unit analysis**

The unit of analysis in this study is manufacturing companies listed on the Indonesia Stock Exchange (IDX). Each observation represents one manufacturing company listed on the Indonesia Stock Exchange (IDX) in each year during the observation period 2020–2023. This unit of analysis is appropriate because all research variables green accounting, CSR, and financial performance with firm size moderation are measured based on data and disclosures at the company level.

##### **Population and Sample**

The population in this study includes all companies in the chemical industry sector listed on the Indonesia Stock Exchange (IDX) during the 2020-2023 period. This population was chosen because the chemical industry is closely related to environmental issues, so it is relevant to be analyzed in the context of green accounting and corporate social responsibility (CSR). In addition, companies in this sector are expected to have

adequate financial data and sustainability information to analyze to understand the relationship between the research variables.

The sample in this study consists of manufacturing companies in the chemical industry sector that meet certain criteria based on purposive sampling techniques. The criteria for selecting the sample include companies that consistently publish financial statements and annual reports during the 2020–2023 period, companies that participate in the Company Performance Rating Assessment Program (PROPER) from the Ministry of Environment and Forestry, and companies that provide complete information related to research variables, namely *green accounting*, CSR, financial performance, and company size. The sampling technique used in this study is purposive sampling, which involves selecting samples based on specific criteria relevant to the research objectives.

The population consists of 32 manufacturing companies in the chemical industry sector listed on the Indonesia Stock Exchange (IDX) that consistently published financial statements and annual reports during the 2020–2023 period. Of these, 31 companies participated in the Company Performance Rating Program (PROPER) organized by the Ministry of Environment and Forestry. After applying the inclusion criteria, only 19 companies were found to have complete data related to all research variables, including the independent, dependent, and moderating variables. Therefore, the final sample of the study comprises 19 companies observed over four years (2020–2023), resulting in a total of 76 firm-year observations ( $19 \times 4 = 76$ ) used for panel data analysis.

### **3.2 Data Analysis**

The data analysis technique used in this study is panel data analysis (pooled data analysis), as it combines both time-series and cross-sectional data. This method is chosen because it captures variations across firms and over time simultaneously, producing more accurate and efficient estimations than single-dimensional analyses. It also allows the researcher to observe the dynamic relationships among variables across manufacturing firms during the observation period, providing a more representative picture of empirical conditions.

**Figure 1. Research Model**

Variable	Label	Measurement / Formula
Green Accounting	GA	Environmental performance based on PROPER rating issued by the Ministry of Environment and Forestry (KLHK), converted into numerical scale: Gold = 5, Green = 4, Blue = 3, Red = 2, Black = 1
Corporate Social Responsibility	CSR	Disclosure index using GRI Standards: $CSR = (\text{Number of GRI indicators disclosed} / \text{Total GRI indicators}) \times 100\%$
Financial Performance	FP	Measured using two profitability ratios: $ROA = \text{Net Income} / \text{Total Assets} \times 100\%$ , $ROE = \text{Net Income} / \text{Shareholders' Equity} \times 100\%$
Firm Size	FS	Natural logarithm of total assets: $FS = \text{Ln}(\text{Total Assets})$

#### 4. Result

**Figure 2. Descriptive Statistical Analysis**

	N	Minimum	Maximum	Mean	Std. Deviation
GA	76	2.00	5.00	3.0000	.73030
CSR	76	.06	.30	.1645	.06255
GA Uk Per	76	53.46	153.66	88.3120	24.38135
CSR Uk Per	76	2.11	9.53	4.9866	1.90564
UP	76	26.73	32.04	29.1980	1.43278
K.Keu	76	-3.66	.53	.0137	.48451
Valid N (listwise)	76				

Source: SPSS Output

Green accounting (X1) in chemical industry companies has the highest value of 5 which occurred in PT Solusi Bangun Indonesia Tbk during 2020-2023, while the lowest value of 2 occurred in several companies such as PT Asiaplast Industries Tbk and PT Lion Metal Works Tbk. The mean value of green accounting is 3 with a standard deviation of 0.73030, indicating that the data is relatively homogeneous and has low variability, so that it can be used representatively in statistical analysis.

The highest CSR (X2) of 0.30 occurred at PT Japfa Comfeed Indonesia Tbk in 2020-2021, while the lowest value of 0.06 was found at PT Semen Indonesia (Persero) Tbk in 2022-2023. With a mean value of 0.1645 and a standard deviation of 0.06255, the CSR data shows a good level of uniformity and low variability, so it can be considered reliable in this study. Meanwhile, financial performance (Y) had a high score of 0.53 and a low of -3.66, with a mean value of 0.0137 and a standard deviation of 0.48451, indicating a fairly high variability of the data. The highest company size (Z) of 32.04 occurred at PT Semen Indonesia (Persero) Tbk in 2022, while the lowest of 26.73 occurred at PT Asiaplast Industries Tbk in 2020. With a mean value of 29.1980 and a standard deviation of 1.43278, the company size data has a low deviation and can accurately represent the company's condition.

### Classical Assumption Test

Figure 3. Normality Test

One-Sample Kolmogorov-Smirnov Test	Unstandardized Residual
N	76
<b>Normal Parameters</b>	
Mean	0.0000000
Std. Deviation	0.47971882
<b>Most Extreme Differences</b>	
Absolute	0.307
Positive	0.194
Negative	-0.307
<b>Test Statistic</b>	0.307
<b>Asymp. Sig. (2-tailed)</b>	0.200

Source :SPSS Output

Based on the *One-Sample Kolmogorov-Smirnov Test* table above the probability number or Asym. Sig. (2-tailed). This value is compared to 0.05 which is a greater value of  $0.200 > 0.05$ , which shows that the data of this study is normal.

**Figure 4. Multicollinearity Test**

Type	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
	B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1							
(Constant)	4.482	5.153		0.870	0.387		
GA	-1.287	1.768	-1.939	-0.728	0.469	0.197	7.192
CSR	-6.653	13.514	-0.859	-0.492	0.624	0.460	7.360
GA. UP	0.045	0.060	2.239	0.748	0.046	0.156	1.657
CRS. UP	0.206	0.457	0.812	0.452	0.037	0.433	1.734
UP	-0.153	0.178	-0.453	-0.861	0.392	0.506	1.755

Source :SPSS Output

Based on the table above, it can be seen that the VIF value of each variable does not occur multicollinearity because the result is less than 10.

**Figure 5. Heteroscedacity Test**

Type	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
1					
(Constant)	-3.616	4.452		-0.812	0.419
GA	0.676	1.528	1.144	0.442	0.660
CSR	12.654	11.677	1.834	1.084	0.282
GA. UP	-0.025	0.051	-1.414	-0.486	0.628
CRS. UP	-0.374	0.395	-1.654	-0.948	0.346
UP	0.130	0.154	0.431	0.845	0.401

Source :SPSS Output

Based on the table above with the Glacier test, it can be seen that the significant values of all variables are more than 0.05, so it can be concluded that there are no symptoms of heteroscedasticity.

**Figure 6. Autocorrelation Test**

Unstandardized Residual	
Test Value	.06201
Cases < Test Value	38
Cases >= Test Value	38
Total Cases	76
Number of Runs	26
Z	-3.002
Asymp. Sig. (2-tailed)	.268

Source: SPSS Output

Based on the Runs Test table, the probability number or Asymp is obtained. Sig. (2-tailed). This value is compared to 0.05 which is a larger value of  $0.268 > 0.05$ , so the data in this study does not have an autocorrelation problem or does not have a relationship between residuals.

## Hypothesis Test

**Figure 7. Partial Test (t-Test)**

Type	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
	B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1							
(Constant)	4.482	5.153		0.870	0.387		
we2GA	- 1.287	1.768	- 1.939	- 0.728	0.469	0.197	7.192
CSR	4.622	11.234	0.759	0.322	0.032	0.360	5.360
GA. UP	0.045	0.060	2.239	0.748	0.046	0.156	1.657
CRS. UP	0.206	0.457	0.812	0.452	0.037	0.433	1.734
UP	- 0.153	0.178	- 0.453	- 0.861	0.392	0.506	1.755

Source :SPSS Output

Based on the table above, the results of the t-test are as follows:

- 1) The green accounting (GA) variable has a probability value of 0.469, so it is known that the probability value is greater than 0.05 or  $0.469 > 0.05$ , this shows that green accounting has no partial effect on financial performance. Based on the results of these statistics, the first hypothesis proposed by the researcher was rejected.
- 2) The CSR variable has a probability value of 0.032, so it is known that the probability value is less than 0.05 or  $0.032 < 0.05$ , this shows that CSR has an effect on financial performance. Based on the results of these statistics, the second hypothesis proposed by the researcher was declared accepted
- 3) In the interaction between company size and green accounting has a probability value of  $0.046 < \alpha 0.05$ ,  $H_0$  is accepted and means that the size of the company is able to moderate (strengthen) the influence of green accounting on financial performance.
- 4) In the interaction between company size and CSR has a probability value of  $0.037 < \alpha 0.05$ ,  $H_0$  is accepted and means that the company size is able to moderate (strengthen) the influence of CSR on financial performance.

**Figure 8.** Determination Coefficient Test

Type	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.278a	.773	.812	.42906

Source :SPSS Output

Based on the table above, it can be seen that the Adjusted R Square or determination coefficient is 0.812, This shows that the green accounting and CSR variables have the ability to explain financial performance variables of 81.2%. While the remaining 18.8% can be explained by other factors that were not studied in this study.

### Moderated Regression Analysis (MRA)

$$Y = \alpha + \beta_1X_1 + \beta_2X_2 + \beta_3M + \beta_4X_1M + \beta_5X_2M + e$$

$$Y = 4.482 - 1.287 X_1 + 4.622 X_2 - 0.153M + 0.045X_1M + 0.206X_2M + e$$

Based on the table above, the results of the Moderated Regression Analysis (MRA) test can be found as follows:

- 1) Constant The value of the constant is 4.482, meaning that if the independent variable is considered constant, then the financial performance variable shows a value of 4.482
- 2) Every 1% increase in green accounting will decrease financial performance by 1,287
- 3) Corporate Social Responsibility Every 1% increase in Corporate Social Responsibility will increase financial performance by 4,622
- 4) Green Accounting x Company Size Every 1% increase in green accounting x company size will increase financial performance by 0.045
- 5) Corporate Social Responsibility x Company Size Every 1% increase *in* Corporate Social Responsibility x Company Size will increase financial performance by 0.206

- 6) Company Size Every 1% increase in company size will decrease financial performance by 0.153
- 7) The value of the regression coefficient of the interaction of company size with green accounting is 0.045, which means that there is a positive relationship with the variable of the interaction of company size with *green accounting* on financial performance. Where the interaction of company size with green accounting increased by 1% while other variables remained unchanged, it led to an increase in financial performance by 0.05%.
- 8) The value of the regression coefficient of the interaction of company size with CSR is 0.206, which means that there is a positive relationship with the variable of the interaction of company size with CSR on financial performance. Where the interaction of company size with CSR increased by 1% while other variables remained constant, thus causing an increase in financial performance by 0.21%.

## 5. Discussion

### The Effect of the Implementation of *Green Accounting* on Financial Performance

Based on the results of the partial significance test (t-test), the significance value of *the green accounting* variable was 0.469 which was greater than 0.05 ( $0.469 > 0.05$ ), so the hypothesis that *green accounting* had a positive effect on financial performance (H1) was rejected. This can be caused by the high cost of implementing *green accounting*, such as human resource training, accounting system updates, and environmental audits, which have an impact on profitability in the short term. In addition, external factors such as economic conditions, industry competition, and company management strategies also affect this relationship.

The results of this study are in line with the findings of Rahmawati & Sari (2021) and Lestari et al. (2021), which stated that green accounting has not had a significant impact on financial performance because the company's orientation is more focused on cost efficiency and profitability. Investors' awareness and appreciation of environmental initiatives are also factors that make the implementation of green accounting not have a direct impact on the company's profits.

However, the results of this study contradict the stakeholder theory and legitimacy theory which states that the application of green accounting can improve relationships with stakeholders and improve the company's image. Studies by Setiawan & Wijaya (2022) and Dewi et al. (2021) show that transparent disclosure of environmental information can increase investor and consumer confidence, potentially boosting financial performance. In addition, external factors such as government regulations and market trends also play an important role in determining the success of green accounting implementation in a company.

## **The Effect of the Implementation of *Corporate Social Responsibility* on Financial Performance**

Based on the results of the partial significance test (t-test), the significance value of the corporate social responsibility variable was 0.012, smaller than 0.05. Because the significance value is less than 0.05, the second hypothesis (H2) stating that corporate social responsibility has an influence on financial performance is accepted. In accordance with the theory of legitimacy, a company that transparently discloses its social and environmental activities can improve its positive image, which ultimately contributes to financial performance. The stakeholder theory also emphasizes that companies that fulfill their social responsibilities can build public trust, which has a positive impact on business sustainability.

These findings are in line with research by Widiastuti and Lestari (2023) and Ramadhani and Pramono (2021), which show that CSR contributes to increasing company profitability and company value. CSR activities, both environmentally and socially focused, can increase customer loyalty, attract investor trust, and strengthen relationships with other stakeholders. This impact contributes to the company's operational efficiency and competitiveness, so it is reflected in better financial performance.

Although the chemical industry does not always receive high pressure related to CSR compared to other sectors such as mining or agribusiness, the results of this study show that effective CSR implementation is still able to create added value for companies. Modern consumers and investors are increasingly demanding transparency and social responsibility from companies, so companies that respond to these demands can attract more attention from stakeholders who care about sustainability.

However, the results of this study contradict the studies of Sari et al. (2020) and Putra and Widodo (2022), which stated that CSR does not always have a significant impact on financial performance. These differences in results can be influenced by the type of industry, the size of the company, and the CSR disclosure strategy used. Therefore, companies need to adjust their CSR strategies in order to provide optimal benefits according to the characteristics and needs of stakeholders.

## **Company Size Moderates the Influence of *Green Accounting* on Financial Performance**

The results of the Moderated Regression Analysis (MRA) test show that the size of the company is able to moderate or strengthen the influence of green accounting on financial performance. This is evidenced by a probability value of 0.046 which is smaller than the significance level of 0.05 ( $0.046 < 0.05$ ). These findings support the hypothesis (H3) that firm size strengthens the influence of green accounting on financial performance.

Large companies generally have higher resource capacity, wider exposure to stakeholders, and greater public pressure to implement transparent environmental practices. This encourages them to be more active in environmental cost disclosure and sustainability management, which can ultimately increase social legitimacy and stakeholder trust, thus positively impacting financial performance.

This finding is in line with the research of Purwanto and Santoso (2022), which stated that company size increases the effectiveness of green accounting implementation and supports the achievement of financial performance. In addition, research by Dewi and Hartono

(2021) also shows that large companies have a more mature organizational structure, so they are able to better integrate green accounting principles in their operations.

With stronger systems and more stable organizational structures, large companies can manage environmental impacts more optimally without sacrificing profitability. This gives a positive signal to investors and increases the company's competitiveness. Therefore, company size is an important factor in strengthening the relationship between green accounting and financial performance, especially in building credibility and trust in the eyes of stakeholders.

### **Company Size Moderates the Influence of *Corporate Social Responsibility* on Financial Performance**

The results of the Moderated Regression Analysis (MRA) test show that the size of the company is able to strengthen the influence of Corporate Social Responsibility (CSR) on financial performance, with a probability value of 0.037 ( $< 0.05$ ). These findings support the hypothesis (H4) that large companies have a significant role in strengthening the relationship between CSR and financial performance.

Large companies generally have more abundant resources and higher public exposure, allowing them to carry out CSR programs in a more structured and extensive manner. More visible CSR activities can improve the company's image in the eyes of stakeholders, increase public trust, and attract investors' attention, which ultimately has a positive impact on financial performance.

In addition, large corporations are often in the spotlight of the public and regulators, so they have a greater incentive to demonstrate compliance with social responsibility. With more transparent CSR disclosure, companies can strengthen legitimacy, increase competitiveness, and create added value for the company and its stakeholders.

## **6. Conclusion, Implication, and Recommendation**

### **Conclusion**

Based on the results of the research and discussion, it can be concluded as follows:

1. Green accounting has no effect on the financial performance of manufacturing companies listed on the IDX for the 2020-2023 period. This indicates that the implementation of green accounting, which involves the allocation of large costs for human resource training, accounting system updates, and environmental audits, has not been able to have a significant positive impact on the company's financial performance. Expenses related to these green practices tend to affect profitability in the short term, especially if the company is still oriented towards cost efficiency and profit optimization. In addition, the low awareness and appreciation of investors for environmental initiatives is one of the factors that hinder the positive impact of green accounting on financial performance.
2. Corporate Social Responsibility (CSR) affects the financial performance of manufacturing companies listed on the IDX for the 2020-2023 period. This indicates that the implementation of CSR, especially in companies in the chemical industry sector, is an important factor that can improve the company's financial performance. CSR practices that support the environment, such as waste management and carbon emission reduction, as well as social programs such as community empowerment, are

able to improve the company's reputation, customer loyalty, and investor trust. Thus, CSR not only reflects the company's responsibility for sustainability, but also provides added value that has a positive impact on the company's operational efficiency and competitiveness.

3. The size of the company strengthens the influence of green accounting on the financial performance of manufacturing companies listed on the IDX for the 2020-2023 period. Companies with large sizes have a greater capacity to effectively implement green accounting and attract the attention of stakeholders, so that the positive impact on financial performance becomes more real.
4. The size of the company strengthens the influence of CSR on the financial performance of manufacturing companies listed on the IDX for the 2020-2023 period. Large companies have greater resources and higher public exposure, so the implementation of CSR can have a positive impact on the company's reputation, which ultimately increases stakeholder trust and supports financial performance.

### **Implication**

This study has both theoretical and practical implications. Theoretically, it enriches the understanding of how green accounting *and* corporate social responsibility (CSR) influence financial performance in emerging market contexts, highlighting the moderating role of firm size. Practically, it suggests that managers should perceive environmental and social initiatives as strategic investments that enhance long-term corporate value. Moreover, regulators may use these findings to strengthen sustainability policies and encourage broader corporate participation in programs like PROPER to ensure that environmental accountability aligns with financial sustainability.

### **Recommendation**

Based on the results of the research, it is suggested that several things are expected to provide benefits in the future:

1. For academics, it is recommended to further research the relationship between green accounting, CSR, and financial performance by considering the characteristics of the company, such as the industry sector and the size of the company.
2. For the government and regulators, the results of this study can be a reference in formulating policies that encourage the implementation of green accounting and CSR, including providing incentives for companies that implement sustainability practices consistently.
3. For manufacturing companies, it is advisable not only to see green accounting and CSR as regulatory compliance, but also as a strategy to improve the image and trust of stakeholders, especially for large companies that have more capacity to optimize their impact.
4. For investors and the public, it is important to consider the size of the company in assessing the relationship between green accounting, CSR, and financial performance, so that it can be a factor in consideration in making investment decisions.

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