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Unlocking Profitability: How CSR Practices Drive Financial Performance Through Green Innovation

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ABSTRACT

This study explores the influence of corporate social responsibility (CSR) and green innovation on corporate financial performance. Using purposive sampling, the research examines a sample of 126 manufacturing companies listed on the Indonesia Stock Exchange (IDX) from 2018 to 2022. Data were collected from the sample companies' annual reports. Employing regression analysis to analyze the data, this study finds that CSR and green innovation positively affect financial performance. Companies that actively engage in CSR initiatives are more likely to implement environmentally friendly innovations. This study also found that green innovation mediates the relationship between CSR and financial performance. Consequently, prioritizing CSR fosters green innovation, which, in turn, improves financial performance through increased efficiency, corporate reputation, and market opportunities. This study provides valuable insights for managers and practitioners, highlighting the strategic role of CSR in strengthening financial performance through green innovation.

Keywords:
Corporate social responsibility, firm performance, green innovation, manufacturing companies

Apakah Praktik Corporate Social Responsibility Berkontribusi terhadap Kinerja Keuangan Perusahaan? Peran Inovasi Hijau sebagai Mediator

ABSTRAK

Studi ini bertujuan untuk menganalisis pengaruh corporate social responsibility (CSR) dan inovasi hijau terhadap kinerja keuangan perusahaan. Penelitian ini menggunakan metode purposive sampling dengan sampel 126 perusahaan manufaktur pada Bursa Efek Indonesia (BEI) periode 2018–2022. Dengan menggunakan metode regresi, penelitian ini meunjukkan bahwa CSR dan inovasi hijau berpengaruh positif terhadap kinerja keuangan. Perusahaan yang berfokus pada CSR lebih cenderung menerapkan inovasi ramah lingkungan. Selain itu, strategi inovasi hijau berhasil memediasi hubungan antara CSR dan kinerja keuangan. Dengan demikian, prioritas CSR mendorong inovasi hijau yang meningkatkan kinerja keuangan melalui efisiensi, reputasi, dan peluang pasar. Temuan ini memberikan wawasan berharga bagi manajer dan praktisi dalam memahami pentingnya CSR dalam meningkatkan kinerja keuangan perusahaan melalui inovasi hijau.

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1. Introduction

Indonesia's economic growth has reached 5,05% by 2023, with the manufacturing sector contributing 20,8% to GDP, reflecting a significant recovery from the contraction during the Covid-19 pandemic (Kelvin & Haryanto, 2023). This recovery has intensified competition in the manufacturing sector, urging businesses to innovate through digital technology and sustainable practices (Dewi & Muslim, 2022). However, limited research has explored how CSR impacts financial performance in the post-pandemic era, particularly in Indonesia’s manufacturing sector. This study addresses this gap by examining the mediating role of green innovation and offers novel insights into how sustainability-focused strategies can enhance financial outcomes while balancing social and environmental responsibilities, such as addressing climate change and supporting communities (Putri et al., 2023).

The outcomes of corporate activities, often measured through financial performance, serve as key indicators of a company's success (Soveinia & Haryanto, 2022). Financial performance reflects a company’s overall financial condition and encourages management to adopt policies that drive growth while fostering sustainability (Kusumawardani et al., 2021). These policies not only improve profitability but also support long-term goals by integrating sustainable practices, such as efficient resource use and eco-friendly innovations. Moreover, effective management of investor funds ensures profitability and attracts additional investments, enabling further business expansion (Ridho et al., 2022). As a result, corporate performance remains a vital focus for achieving sustainable prosperity, shaped by factors such as social responsibility and green innovation (Haryanto & Stevania, 2022).

Corporate Social Responsibility (CSR) serves as a fundamental component of sustainable business practices, reflecting a company’s moral and ethical responsibility towards the community and environment (Hesniati & Oktarianto, 2024). Companies actively contribute to environmental conservation through energy efficiency, resource management, and development of eco-friendly products (Waaqi’ah et al., 2021). The effectiveness of these efforts relies on the active support and collaboration of key stakeholders, including employees, customers, investors, government agencies, and the wider community (Lukman et al., 2023).

A company's commitment to Corporate Social Responsibility (CSR) can significantly enhance its reputation and foster strong relationships with both customers and employees. By promoting ethical business practices, contributing to community well-being, and improving government relations, CSR has a positive impact on a company's financial performance, including stock value (Julythiawati & Ardiana, 2023). Transparency in CSR activities is essential for gaining investor trust and ensuring long-term investment and stability (Hesniati & Santi, 2019). High CSR performance reflects ethical management and contributes to both positive corporate image and financial success (Caputo et al., 2021).

Manufacturing companies in Indonesia face significant challenges related to environmental sustainability, particularly in managing waste production. According to Azwina et al. (2023), the manufacturing industry involves converting raw materials into finished products, a process that can contribute to environmental pollution if not properly managed. Prena (2021) highlighted the risks of air, water, soil, and resource pollution from improper waste disposal. In 2021, the Ministry of Environment and Forestry reported that 2.897 manufacturing companies generated hazardous and toxic waste (B3), emphasizing their responsibility to address environmental impacts. By integrating financial considerations with environmental sustainability, manufacturing companies can reduce pollution while maintaining economic viability (Waaqi'ah et al., 2021).

Green innovation plays a key role in linking Corporate Social Responsibility (CSR) with financial performance. Homayoun et al. (2023) highlight that green innovation mediates the relationship between CSR and financial outcomes. It involves the adoption of environmentally friendly technologies, processes, and products that not only reduce pollution, but also enhance ecological performance. As Li et al. (2022) noted, green innovation is vital for sustainable growth in manufacturing companies, supporting long-term competitiveness and market differentiation. Taklo et al. (2021) emphasize that green innovation is increasingly becoming a tool for companies to sustain themselves while improving their financial performance. The benefits of green innovation, such as cost savings, increased productivity, regulatory compliance, and improved reputation, contribute directly to a company's financial success (Bibi & Narsa, 2022). This study explores how Indonesian companies can leverage CSR, particularly through green innovation, to improve their financial performance. By investigating the role of green innovation, this study focuses on the post-pandemic context and contributes to the literature on CSR. It also offers practical implications for companies seeking to make informed decisions regarding resource allocation, business strategies, and sustainability.

2. Theoretical framework and hypotheses development

Corporate social responsibility

Corporate social responsibility (CSR) encourages companies to voluntarily contribute to the well-being of society and the environment while considering the social, environmental, and ethical impacts beyond financial profit (Wirba, 2024). CSR refers to a company's social responsibility to align its activities and interests with those of shareholders, employees, consumers, the environment, the community, and other stakeholders and is accountable for its environmental impact, recognizing that implementing CSR initiatives brings both additional benefits and costs for businesses, stakeholders, and society as a whole (Barauskaite & Streimikiene, 2021). CSR disclosure can be measured using the GRI (Global Reporting Initiative). This study uses GRI G4 because it provides clear and comprehensive guidelines for disclosing various aspects of a company's sustainability, including economic, environmental, human rights, and social practice impacts (Imron, 2023). The checklist uses GRI G4 (91 items) for CSR disclosure, scoring 1 for companies that disclose and 0 for those that do not, with 91 statement items disclosed across various aspects, including 9 economic, 34 environmental, 12 human rights, 16 labor practices and decent work, 11 social, and 9 product responsibility aspects.

Financial performance

Financial performance is an overview used to assess how well a company has achieved its profit goals. This can be observed through periodic financial statements that provide information on its financial position, including revenue, profit, assets, liabilities, and equity (Ani, 2021). Investors analyze a company's financial performance by examining its profitability ratios. According to Mayndarto (2022), profitability ratios aim to measure a company's ability to generate profit, helping both management and investors understand the company's financial standing and compare it with competitors or industry standards for more informed decision-making. This ratio is important for determining the extent of a company's ability to generate profits from both operating and non-operating activities. The profitability ratio used in this study is Return on Assets (ROA), a financial metric that measures a company's ability to generate profits from its assets (Włodarczyk et al., 2024).

Green innovation

Green innovation (GI) is a proactive approach essential for contributing to environmental development and continuous innovation, and includes the expansion of energy-saving technologies, pollution prevention, waste recycling, and the design of environmentally friendly products (Chouaibi et al., 2022). Green innovation requires enterprises to acquire diverse and new knowledge, often beyond their existing expertise, and absorptive capacity plays a key role in acquiring and utilizing external knowledge such as environmental protection technology (Ning et al., 2023). Green innovation involves the use of innovative technologies, processes, and products that can reduce environmental pollution and improve a company's ecological performance.

The effect of corporate social responsibility on green innovation

Green innovation refers to the development and implementation of environment-friendly technologies, processes, and products aimed at reducing negative environmental impacts. The technological advancements implemented by companies to address societal needs, sustainability, and corporate strategies result from the interplay between social responsibility and green innovation (Novitasari & Agustia, 2021). Mastarida (2022) highlighted that the assessment of green innovation and its components is crucial for achieving corporate sustainability, as it is closely tied to social responsibility. Companies with the resources and capacity to innovate can link their social responsibility performance to environmentally friendly practices, thus enhancing both their competitive advantage and sustainability (Broadstock et al., 2019). Thus, green innovation presents significant opportunities for companies to meet environmental performance targets, while benefiting both the environment and society. Therefore, this study hypothesizes the following.

H1: Corporate social responsibility has a positive effect on green innovation.

The effect of green innovation on company financial performance

The relationship between green innovation and financial performance forms the basis of management policies that emphasize sustainability-focused innovation as a driver of financial success. Companies adopting green innovation can gain competitive advantage by improving productivity, expanding into new markets, and strengthening their brand image (Xu et al., 2021). Specific mechanisms, such as cost reduction through energy efficiency, compliance with environmental regulations, and increased consumer preference for eco-friendly products, directly contribute to enhanced financial performance (Lin et al., 2019). Companies can achieve both economic growth and sustainability by aligning innovation with environmental goals. Therefore, this study hypothesizes the following.

H2: Green Innovation has a positive effect on financial performance.

The effect of corporate social responsibility on company financial performance

Good implementation of Corporate Social Responsibility (CSR) can significantly improve a company's reputation, attract consumers and investors, and reduce costs and risks, all of which contribute to better financial performance. Investing in CSR allows companies to develop valuable internal resources, such as enhanced knowledge and a stronger corporate culture, which fosters innovation, increases productivity, and reduces operational costs, ultimately boosting profitability. Additionally, CSR initiatives enhance a company's public image, leading to greater customer loyalty, expanded customer base, and increased sales revenue (Akben-Selcuk, 2019). According to Li et al. (2023), the effective management of environmental aspects reduces regulatory risks, lowers costs through resource efficiency, and creates competitive advantages by appealing to environmentally conscious consumers, further driving superior company performance. Therefore, this study hypothesizes the following.

H3: Corporate social responsibility has a positive impact on company financial performance.

Corporate social responsibility and company financial performance: the mediating role of green innovation

Green innovation plays a crucial role in mediating the relationship between Corporate Social Responsibility (CSR) and company financial performance, making it a key factor in achieving sustainable development goals. Environmental regulations are vital in this context as they compel companies to comply with strict standards, driving the development of innovative and environmentally friendly technologies and processes (Xu et al., 2022). By fostering green innovation, businesses can achieve competitive advantages and improve profitability through the creation of innovative products that meet both market demands and regulatory requirements (Homayoun et al., 2023). Previous studies have highlighted a positive relationship between CSR and financial performance, with green innovation serving as a critical link that enhances the impact of social responsibility practices on financial outcomes by supporting sustainable and environmentally oriented strategies (Novitasari & Agustia, 2021). Therefore, the researcher presents the fourth hypothesis as follows:

H4: Green innovation can mediate the influence of corporate social responsibility on company financial performance.

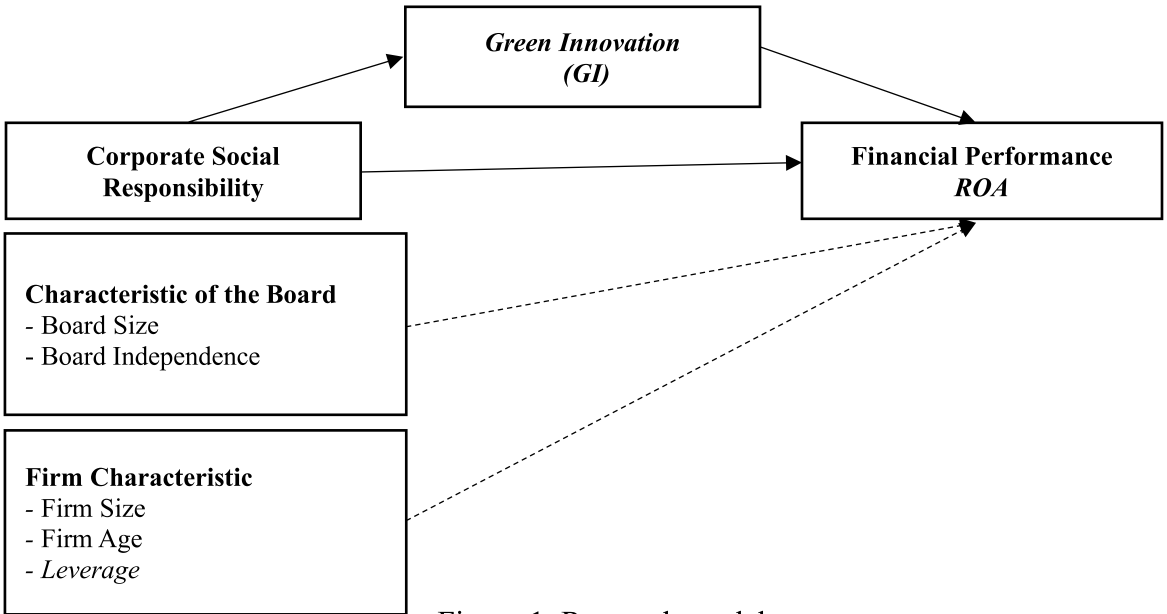

Figure 1. Research model
Source: Processed data (2024)

3. Research method

This study aims to examine the influence of corporate social responsibility on company financial performance with the mediating role of green innovation. The research method used is a quantitative approach, which tests a theory by measuring variables that can reveal the relationship between variables (Yue & Xu, 2019). Data collection is done through secondary data, particularly annual reports listed on the Indonesia Stock Exchange from manufacturing companies as the population. The researcher chose manufacturing companies as the research object because they have a significant impact in the context of environmental and social issues.

Purposive sampling method was use where researcher deliberately choose samples that closely align with the goals of the study (Thomas, 2022). This approach was applied based on specific criteria, including:

1) Manufacturing companies listed on the IDX,
2) Companies that conducted an IPO before 2019,
3) Companies whose annual reports are published in full from 2018 to 2022,
4) Companies that publish annual reports in IDR currency.

The total number of companies listed on the IDX is 181, and 126 companies that met the criteria were obtained for a five-year period. To analyse the data, regression analysis was performed using Stata application. Using Stata, three testing models were used in this study, with the first regression equation testing H1, the influence of corporate social responsibility on green innovation, as follows:

$$GIit = \alpha+\beta 1CSRit+\beta 2LEVit +\beta 3BIit+\beta 4BSit+\beta 5FSi+\beta 6FAi \;........................(1)$$

The second regression equation to test H2, the influence of green innovation on company financial performance, is as follows:

$$ROAit = \alpha+\beta1GIit+\beta2LEVit+\beta3BIit+\beta4BSit+\beta5FSi+\beta6FAi \quad ....(2)$$

The third regression equation to test H3, the influence of corporate social responsibility on company financial performance, is as follows:

$$ROAit = \alpha+\beta1CSRit+\beta2LEVit+\beta3BIit+\beta4BSit+\beta5FSi+\beta6FAi \quad ....(3)$$

Where:
ROA = Return of Assets
CSR = Corporate Social Responsibility
GI = *Green Innovation*
Lev = *Leverage*
BI = Board Independence
BS = Board Size
FS = Firm Size
FA = Firm Age

The variables used in the study, along with their related formulas used as part of the research, are displayed in Table 1.

Table 1. Measurement of variables

Variables		**Measurement**	**Source**
Dependent	Financial Performance →*ROA*	$\frac{\text{Net Profit}}{\text{Total Assets}}$	(Okafor et al., 2021)
Independent	Corporate Social Responsibility →*CSR*	$CSRDi = \sum \frac{Xi}{n}$ Where: CSRDi: Company's CSR disclosure i: Number of items valued 1 for company i n: Total number of items in CSR disclosure indicators (n=91)	(Imron, 2023) dan (Shoimah & Aryani, 2019)
Mediation	*Green Innovation → GI*	(1). Production processes use new technologies to reduce energy, water, and waste, (2). Products use materials that are less polluting or hazardous (environmentally friendly materials), (3). Products are packaged in environmentally friendly packaging (e.g., paper and plastic), (4). Components or materials in the production process can be recycled or renewed.	(Agustia *et al.*, 2019)

Control	Board Size → BS	Total number of board of directors	(Ngatno et al., 2021)
	Board Independence → BI	Number of independents on the board	(Boshnak et al., 2023)
	Firm Size → FS	Natural logarithm of total assets	(Homayoun *et al*., 2023)
	Firm Age → FA	Natural logarithm of years since foundation	
	Leverage → LEV	$\frac{\text{Total Liabilities}}{\text{Total Assets}}$	

4. Results and discussion

Based on the data collected from manufacturing companies listed on the Indonesia Stock Exchange (IDX), totaling 126 companies with a time range from 2018 to 2022, the descriptive statistical test results were obtained, including the mean, standard deviation, minimum value, and maximum value. The results of the descriptive statistical test can be seen in Table 2.

Table 2. Descriptive statistics

Variable	***Mean***	***Std. Dev.***	***Min***	***Max***
CSR	0.4414443	0.1898452	0.032967	0.8241758
ROA	0.039831	0.1126673	-1.049837	0.7281553
GI	0.665873	0.3279901	0	1
FS	28.55255	1.734423	2.061908	33.65519
FA	3.66881	0.4064576	1.386294	4.691348
LEV	0.481162	0.3468913	0.0024803	4.291262
BI	0.41451	0.1115512	0.1666667	1
BS	8.911111	3.589647	4	30

Source: Processed data (2024)

In Table 2 above, the average value is 0.03983 or 3.9%. which is worse than the research conducted by An dan Ahmad (2023) in China, which was 5,9%. This means that the percentage of financial performance of manufacturing companies in Indonesia in generating net income is still relatively low. Ideally, the minimum ideal ROA value should reach 5%, so through the average value result, it can be reflected that manufacturing companies are not efficient in using their assets to generate profit.

The descriptive results for the CSR variable show an average value of 0.44144 or 44.1%, which means that there are manufacturing companies in the period 2018 to 2022 that have met the criteria for disclosing social responsibilities. This can be seen from the maximum value of 82,4%, indicating that Unilever has implemented CSR criteria by conducting responsible business, reducing environmental impact, engaging in community development programs, respecting human rights and worker welfare, communicating transparently, and innovating for sustainability.

The descriptive results for the GI variable show an average GI of 0.66587 or 66.5%, indicating that the implementation of green innovation in manufacturing companies is relatively high. This result indicates that companies' awareness of the environment is increasing, so in the innovation process, they use minimal materials and reduce environmental impact, use natural resources efficiently, reduce emissions, and develop environmentally friendly technologies.

A correlation test was conducted to determine whether there was a relationship between the variables. Table 3 contains the results of the correlation test.

Table 3. Correlation test results

	ROA	GI	CSR	LEV	BI	BS	FS	FA
ROA	1.0000							
GI	0.1178	1.0000						
CSR	0.2147	0.1656	1.0000					
LEV	-0.2444	-0.0283	-0.0226	1.0000				
BI	0.1358	-0.1712	0.0341	0.0431	1.0000			
BS	0.1247	0.1497	0.6062	-0.0364	0.0080	1.0000		
FS	0.1358	0.0677	0.4900	-0.0220	0.0551.	0.6634.	1.0000	
FA	0.0988	-0.0143	0.0759	-0.0451	-0.0190	0.2180	0.1317	1.0000

Source: Processed data (2024)

Table 3 presents the results of the correlation test between the research variables. The purpose of testing the correlation matrix is to assess the strength and direction of relationships between variables under study. From these correlation results, it can be seen that green innovation and corporate social responsibility have a positive correlation with firm financial performance. Additionally, board independence, board size, firm size, and firm age also show a positive correlation with financial performance, indicating that these independent and control variables contribute to improving financial performance.

Table 4. Regression results

	(1)	(2)	(3)	(4)	(5)
	GI	**GI**	**GI**	**GI**	**GI**
CSR	0.2862***	0.2852***	0.2959***	0.2187***	0.2260***
	(3.99)	(3.97)	(4.26)	(2.69)	(2.72)
LEV		-0.0232	-0.0158	-0.0143	-0.0160
		(-0.65)	(-0.47)	(-0.42)	(-0.48)
BI			-0.5165***	-0.5140***	-0.5099***
			(-3.89)	(-3.83)	(-3.85)
BS				0.0067*	0.0112**
				(1.87)	(2.53)
FS					-0.0118
					(-1.26)
FA					-0.0378

					(-1.16)
Constant	0.5395***	0.5511***	0.7570***	0.7292***	1.1618***
	(15.73)	(14.06)	(11.61)	(10.51)	(4.25)
Adj. R-squared	0.0259	0.0249	0.0543	0.0562	0.0576
Obs.	630	630	630	630	630

=* p<0.10 **p<0.05 *** p<0.01

Source: Processed data (2024)

Based on the regression test results presented in Table 4, corporate social responsibility has a significant positive effect on green innovation. This is evidenced by the coefficient value of 0.2862 and the t-statistic value of 3.99, with three asterisks (**) indicating a significance level of <0.01. These results suggest that higher corporate social responsibility engagement contributes to increased green innovation initiatives within firms. Even when adding control variables (Leverage, Board Independence, Board Size, Firm Size, Firm Age), the significant positive relationship remains the same. Corporate social responsibility and green innovation have a mutually reinforcing relationship because they support each other in creating sustainable businesses. Kraus et al. (2020) stated that corporate social responsibility is one of the main drivers for organizations to develop green innovation. Companies committed to social responsibility tend to be more aware of environmental and social issues. This awareness encourages companies to develop green innovation as part of their efforts to reduce the negative environmental impacts. Furthermore, participation in social responsibility can enhance a company's reputation and image (Zhou et al., 2021).

This provides an additional incentive for companies to develop green innovation, as tangible evidence of their commitment to sustainability. Green innovation can also improve operational efficiency and company productivity, such as by using environmentally friendly technology in production processes that can reduce costs and waste. Increasingly stringent environmental regulations also drive companies to engage in green innovation to comply with these regulations, which, in turn, can also be seen as part of corporate social responsibility. Therefore, H1 is accepted, and this study is supported by (Falcó et al., 2023; Mastarida, 2022; Dai et al., 2022; Hong et al., 2020).

Table 5. Regression results

	(1)	(2)	(3)	(4)	(5)
	ROA	**ROA**	**ROA**	**ROA**	**ROA**
GI	0.0404***	0.0381**	0.0480***	0.0429***	0.0452***
	(2.83)	(2.57)	(3.59)	(3.17)	(3.42)
LEV		-0.0784	-0.0805	-0.0794	-0.0785
		(-1.38)	(-1.40)	(-1.39)	(-1.35)
BI			0.1718***	0.1683***	0.1668***
			(3.21)	(3.26)	(3.24)

BS				0.0030**	0.0006
				(2.38)	(0.32)
FS					0.0059
					(1.60)
FA					0.0214
					(1.42)
Constant	0.0129	0.0522*	-0.0246	-0.0470	-0.2727***
	(1.26)	(1.70)	(-0.78)	(-1.42)	(-2.90)
Adj. R-squared	0.0123	0.0690	0.0957	0.1033	0.1106
Obs.	630	630	630	630	630

="* p<0.10 **p<0.05 *** p<0.01"

Source: Processed data (2024)

Based on the regression test results presented in Table 5 shows that green innovation has a significant positive effect on financial performance as measured by return on assets. This is evidenced by the positive coefficient values of green innovation across all models and the statistical significance at the 1% and 5% levels, suggesting that increased green innovation contributes to improved financial performance. This is evident in Table 5, where the coefficient value and t-statistic value are 0.0404 and 2.83, with three asterisks (***) indicating a significance level of <0.01, suggesting that an increase in green innovation is associated with an increase in financial performance. However, when the control variable (Leverage) is added, there is a decrease in the coefficient value to 0.0381 with 2 asterisks, which means that green innovation has a significant effect on financial performance with a probability value of <0.05. Nevertheless, after adding other control variables (Board Independence, Board Size, Firm Size, and Firm Age), the relationship between green innovation and financial performance increases again with a probability value of <0.01.

Ma et al. (2023) argues that implementing corporate financial performance and green innovation programs can enhance incentives for companies to invest in more efficient and sustainable contemporary procedures. Green innovation programs can help companies become more competitive and sustainable, with environmentally friendly processes and product innovation playing a positive role in corporate financial performance (Tian & Wang, 2020). This can lead to cost reduction, increased efficiency, and improved profitability. In addition to the benefits in terms of performance and competitiveness, implementing new ideas can also result in monetary savings (Hu et al., 2021). By reducing expenses, cutting energy consumption, and reducing waste, companies can lower operational costs and increase long-term profitability. Thus, H2 is accepted, and these results were consistent with those of previous studies (Agustia et al., 2019; Xie et al., 2019; Zheng et al., 2022; Lin et al., 2019; Xu et al., 2021).

However, this contradicts the findings of Mahsina and Agustia, 2023) and Grisales et al. (2020). The reason could be that the process of developing and implementing green innovation often incurs additional costs that are not experienced by other companies. These costs can come from the development of new technologies, the use of more environmentally friendly raw materials, or changes in production processes. These additional costs can reduce the incentive for companies to invest in environmental initiatives, so although these innovations are important in the sustainability context, they will impact the financial performance of the company.

Table 6. Regression results

	(1)	(2)	(3)	(4)	(5)
	ROA	ROA	ROA	ROA	ROA
CSR	0.1274***	0.1242***	0.1213***	0.1266***	0.1267***
	(4.86)	(5.14)	(5.33)	(4.66)	(4.54)
LEV		-0.0778	-0.0798	-0.0799	-0.0790
		(-1.38)	(-1.39)	(-1.39)	(-1.36)
BI			0.1406***	0.1404***	0.1397***
			(2.73)	(2.72)	(2.75)
BS				-0.0005	-0.0021
				(-0.34)	(-1.14)
FS					0.0034
					(0.96)
FA					0.0227
					(1.52)
Constant	-0.0164	0.0225	-0.0336	-0.0317	-0.1971**
	(-1.26)	(0.86)	(-1.14)	(-1.05)	(-2.17)
Adj. R-squared	0.0446	0.1006	0.1186	0.1173	0.1224
Obs.	630	630	630	630	630
="* p<0.10	**p<0.05	*** p<0.01"			

Source: Processed data (2024)

Table 6 shows the regression test results of company financial performance and social responsibility, where the table above analysis the regression analysis results representing CSR GRI-91 responsibility as the independent variable and financial performance represented by ROA as the dependent variable. This result shows that the GRI Standard covers 91 disclosure indicators divided into three categories: economic, environmental, and social, which are significantly and positively correlated with company financial performance at a significance level of <0.01. Additionally, when control variables are added (LEV, BI, BS, FS, and FA), the results of the significant positive relationship remain the same, indicating that the regression results show that an increase in CSR levels can increase the total net profit margin (ROA) of the company and improve financial performance.

Mahrani and Soewarno (2018), highlights that increasing social responsibility through improved environmental performance can enhance a company's financial performance. Furthermore, environmental improvement efforts will be positively appreciated by investors and will impact the company's image positively. Social responsibility has a significant impact on a company's reputation and stakeholder relationships. Socially and environmentally responsible CSR activities build a positive attitude towards the company and its products. Transparent communication about social responsibility can enhance positive assessments from stakeholders, both internal and external (Barauskaite & Streimikiene, 2021). This creates reputation dividends and can provide financial rewards, reflecting better financial performance for the company. Thus, H3 is accepted, and these results are consistent with studies (Cho *et al*., 2019;Yousefian *et al*., 2023; Wu *et al*., 2020; Akben-selcuk, 2019).

However, the result of this study are not in line with the studies of (Menezes, 2019) and (Firdha *et al*., 2022). This is because most investors view the disclosure of social responsibility implementation as a formality, without having a real impact on society or the environment. Therefore, corporate social responsibility activities have not yet had a significant impact on company profitability through ROA.

Table 7. Mediation test results

Dependent variable: *Return On Asset*		
Variable	***t-Statistic***	***P-Value***
GI	2.12823512	0.03331759

Source: Processed data (2024)

Table 7 shows a t-value of 2.12823 with a significance value of 0.03331 (sig < 5%), which means that green innovation mediates the relationship between corporate social responsibility and financial performance. Thus, H4 is accepted. This result is consistent with research by Homayoun *et al*. (2023) and Novitasari and Tarigan (2022); companies that combine social responsibility strategies with green innovation can improve their financial performance. According to Ma *et al*. (2023), green innovation can act as a mediator between corporate social responsibility and company performance by enabling the implementation of regulations that help a company minimize its environmental impact. Companies that actively engage in CSR initiatives and implement green innovation tend to optimize asset utilization, leading to improved operational efficiency and profitability. By reducing waste, lowering energy consumption, and adopting sustainable practices, green innovation enhances cost savings and resource efficiency and positively influences ROA. This mediation effect strengthens the financial benefits of CSR, thus ensuring a long-term competitive advantage. Improving financial performance provides companies with greater efficiency, making them more attractive to investors and financing, while maintaining a strong reputation among consumers and stakeholders. Therefore, companies must implement corporate social responsibility initiatives supported by green innovation to foster sustainable financial growth and maintain harmonious relationships with stakeholders.

However, the results of this study are not consistent with those of Mahsina and Agustia (2023) and Cahyaningtyas *et al*. (2022). This could happen because manufacturing companies tend to prioritize social responsibility aspects over green innovation, which can ultimately affect financial performance. The influence of social responsibility and green innovation on company financial performance can be influenced by the level of community concern. Although companies are concerned about the environment, if the community (consumers) is not concerned about the environment, these efforts may not affect the company's financial performance. This is because consumers still pay more attention to their affordable needs than whether the product is environmentally friendly or not.

5. Conclusions

The purpose of this study is to analysis whether corporate social responsibility and green innovation affect the financial performance of manufacturing companies in Indonesia for the period 2018-2022. The research findings reveal four hypotheses: the implementation of corporate social responsibility enhances green innovation (H1) and company financial performance (H3); green innovation positively impacts company financial performance (H2); and green innovation mediates the relationship between corporate social responsibility and company financial performance (H4). The data analysis results confirmed that all hypotheses were accepted.

Companies that implement social responsibility tend to pay more attention to environmental and social issues in their operations. This encourages them to seek innovative environmentally friendly solutions (green innovation) in their products, processes, and business models. Conversely, these innovations can also be driven by the need to meet market demands and regulations that increasingly focus on environmental aspects. The implementation of social responsibility can also improve a company's financial performance. By focusing on social responsibility, companies tend to improve their reputation in the perspective of consumers and other stakeholders. This can increase customer loyalty, enhance the company's attractiveness to investors, and reduce reputation risks that can negatively impact financial performance.

Green innovation can reduce long-term operational costs, such as energy and raw material savings, and reduce regulatory and reputation risks that can hinder financial performance. Additionally, green innovation can also enhance the attractiveness of a company's products in a market that is increasingly concerned about environmental issues, thus increasing company revenue. Companies that focus on social responsibility often strengthen their ability to innovate, which can result in lower energy and resource consumption, along with improved productivity and competitiveness. These results indicate that social responsibility activities have a positive impact on green innovation, which in turn has a positive impact on financial performance.

The limitation of this study is that there are several companies that do not publish annual reports and comprehensive sustainability reports. Therefore, the research findings cannot be generalized to other sectors. Thus, for future research, it is recommended to expand the sample by including samples from different business sectors and to extend the research period.

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