



Does Financial Performance Mediate the Impact of Green Accounting and Environmental Performance on Firm Value?

Muhammad Rezi Sudimas^{1*}, Ramdany Ramdany², Heri Ispriyahadi³
^{1,2} Universitas Teknologi Muhammadiyah Jakarta, Indonesia

Received : April 5, 2023

Revised : April 28, 2023

Accepted : April 29, 2023

Online : April 30, 2023

Abstract

Various environmental problems in the world because business activities are not responsible for their activities and their impact on the environment. The responsibility of companies make by paying for their environmental costs can help reduce future costs. This paper aims to examine whether financial performance mediates the impact of green accounting and environmental performance on firm value. The method used is quantitative with a causality design. The sampling method uses purposive sampling to test the relationship between variables. The data used is panel data with a total of 83 companies during 2016 - 2021. The method of analysis in this study uses path analysis. The authors find that green accounting and environmental performance affect financial performance. While green accounting, environmental and financial performance affect firm value. The relationship between green accounting, environmental performance, and firm value is not mediated by financial performance. It shows that the business is increasing environmental costs and participating in the PROPER award can carry out activities that do not directly harm the environment, and the company is environmentally conscious. This condition fits the legitimacy and stakeholder theory. If the business can focus on environmental management, the community will accept it well, and the company will have a good reputation. High trust and loyalty enhance the company's profits and value. This study varies from other research in that it comprehensively examines the effects of green accounting and environmental performance, both direct and indirect, on financial performance and firm value.

Keywords: *Green Accounting; Environmental Performance; Financial Performance; Firm Value*

INTRODUCTION

Currently, Indonesia is experiencing a social and environmental crisis that threatens the lives of living things, including humans, on Earth. The results of the activities of business organizations on the environment have caused scarcity of resources, environmental degradation, oil spills, water pollution, air and noise pollution, health hazards, and societal pollution and thus cause an imbalance in the environmental system. Businesses focus on the environment and the social environment in addition to the economic benefits (Chinedu & Ogochukwu, 2020; Lako, 2018; Zhang et al., 2022).

The Indonesian government has strengthened corporate responsibility towards the environment, especially for companies engaged in the natural resources sector, through Law Number 40 of 2007 concerning Limited Liability Companies (Republic Indonesia Law, 2007). Law Number 32 of 2009 concerning Environmental Protection and Management (Republic Indonesia Law, 2009). Environmental policies that are carefully crafted can boost competitive advantage. Environmental rules and fines are expensive and will have an impact on competitiveness, even though companies who adhere to them will have a good influence on the environment (Romero et al., 2018).

Environmental costs are included as one of the acceptable costs in the economy, and the environment is integrated as a source of capital in green accounting (Chinedu & Ogochukwu, 2020; C. H. Cho & Patten, 2013; Rounaghi, 2019). For users to evaluate both economic and non-economic decisions, integrated accounting information is necessary. Environmental and social disclosure comes with costs, but increasingly large public companies are increasingly making higher and better quality disclosures (Lako, 2019; Qiu et al., 2016). With people's deepening concern for

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Corresponding author's email: rezisudimas407@gmail.com

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environmental protection awareness, people no longer only pay attention to the authenticity of accounting information but start paying attention to whether companies make appropriate contributions to environmental protection (Lusiana et al., 2021; Nor et al., 2016).

A company's efforts to create a comfortable environment are referred to as "environmental performance". Environmental performance is a concept that expresses the degree of environmental destruction caused by business activities. Better environmental performance due to less damage to the environment. The financial performance, on the other hand, declines as environmental damage increases. Implementing environmental impact certification is a challenge in and of itself, though. It is due to the possibility of stakeholder conflicts of interest. Environmental impacts concern companies and are why a company implements environmental awards (Lee et al., 2016; Wiengarten et al., 2017). The Performance Rating Program (PROPER), often known as the rating program, can be used to measure how well Indonesian companies manage their environmental impact. An evaluation program for the actions taken by persons in charge of businesses and/or activities to prevent environmental harm or pollution is proper (Ministry of Environment, 2002). The Ministry of Environment periodically checks companies' compliance level in implementing environmentally friendly production processes. Test results are reported to the company in the form of a PROPER award, ranging from the worst black rating to the best gold rating (Utama, 2011).

Investors will respond favorably to companies that do well in terms of the environment, which will boost the company's worth by driving up the price of its stocks. Companies must also perform financially in their operations or processes to have high corporate value. (Abdi et al., 2020). The financial performance will show whether the company's financial condition is good or bad. Measuring a company's financial performance using financial ratios shows changes in the company's financial condition and the company's potential to manage company assets in increasing company value (Lusiana et al., 2021). The high corporate value will have an impact on investor confidence in current and future financial performance. To achieve good corporate value, of course, a company must be able to optimize its operational activities to generate targeted profits (Chabachib et al., 2019; S. J. Cho et al., 2019; Santosa et al., 2020).

This article summarizes various research studies on the relationship between green accounting, environmental performance, financial performance, and firm value. Some studies, such as those (Emmanuel, 2021; Lusiana et al., 2021; Pedron et al., 2021; Riyadh et al., 2020), support the idea that green accounting has a positive effect on financial performance, while others, such as those by (Igbekoyi et al., 2022; Setiawan et al., 2020), green accounting has no effect on financial performance. Research that supports environmental performance affects financial performance (Clarkson et al., 2011; Hanjani & Kusumadewi, 2022; Iwata & Okada, 2011; Manrique, 2017; Sara et al., 2022). However, it differs from a study by (Abdullah et al., 2019; Gull et al., 2022; Lu & Taylor, 2018; Pintea et al., 2014; Rokhmawati et al., 2015), environmental performance does not affect financial performance.

Research that supports green accounting has an effect on firm value (Dewi & Edward Narayana, 2020; Radhouane et al., 2020); however, it differs from a study by (Carandang & Ferrer, 2020; Qiu et al., 2016), green accounting has no effect on firm value. Research that supports environmental performance influences firm value (Lestari & Restuningdiah, 2021; Sapulette & Limba, 2021; Wahidahwati & Ardini, 2021); however, it differs from a study by (Ratri & Dewi, 2017; Rinsman & Prasetyo, 2020; Soedjatmiko et al., 2021), environmental performance has no effect on firm value. Research that supports the effect of financial performance on firm value (Abdi et al., 2020; Dianawati & Fuadati, 2016; Salehi et al., 2021; Santosa et al., 2020), however, it differs from a study by (Angelina & Nursasi, 2021; Astuti et al., 2022), financial performance has no effect on firm value.

The study of (Ramadhany et al., 2021) supports the relationship between green accounting and firm value is mediated by financial performance; however, it differs from a study by (Erlangga et al., 2021; Febriani et al., 2021), the relationship between green accounting and firm value is not mediated by financial performance. Similarly, some studies suggest that financial performance mediates the relationship between environmental performance and firm value, such as (Fauzi, 2022; Khairiyani et al., 2019); however, it differs from a study by (Deswanto & Siregar, 2018; Rinsman & Prasetyo, 2020), the relationship between environmental performance and firm value is not mediated by financial performance.

Therefore, this study fills in the gaps left by earlier studies that used alternative concepts to examine the flypaper effect in natural settings. Based on the above description of the phenomena and research gaps, this topic is interesting to learn more about: does financial performance mediate the impact of green accounting and environmental performance on firm value. The remainder of this essay is structured as follows: after the introduction, it reviews relevant literature, looks at applicable theories, and hypotheses development, and then elaborates on the study methodology. The following sections provide the analysis of the empirical data, the results and discussion, the conclusion, the limitations, and suggestions for further research.

LITERATURE REVIEW

Stakeholder Theory

According to the principle of stakeholders, businesses are accountable to more than just their owners and have the authority to request information from management to report on their operations to stakeholders (Gull et al., 2022; Yoon & Chung, 2018). In today's business environment, frequent and transparent corporate engagement with stakeholders is no longer optional but necessary to obtain stakeholder approval (Singh et al., 2017). Corporate social and environmental responsibility strengthens the relationship between companies and the communities in which companies operate (Devie et al., 2019).

Legitimacy Theory

This theory emerges from the social science paradigm. It emphasizes this notion that companies should order their social functions by fulfilling social needs and contributing to society having a higher good image (Pedron et al., 2021; Riyadh et al., 2020). Legitimacy has its role in facilitating the relationship between the company and stakeholders. Companies use their social reporting to maintain healthier relationships with related parties to continue to earn more profits (Mahrani & Soewarno, 2018).

Firm value

Firm value is the perception of capital owners on the company's success, which is often associated with stock prices. High corporate value is the desire of the company owner, which shows the prosperity of the shareholders (Abdi et al., 2020; Sukamulja, 2021). Companies expect financial managers to take the best actions for the company by maximizing company value to achieve prosperity owners or shareholders. Firm value can provide maximum shareholder wealth if stock prices increase, it will generate wealth for shareholders (Soewarno et al., 2020).

Financial performance

Financial performance is a company goal, which describes the company's ability to increase company profits by generating profits. Financial reports are made to describe past financial conditions and are used for future financial forecasts (Fahmi, 2016). The ability of a business to turn a profit using sales, total assets, and capital is known as profitability. Profitability ratios are

crucial for a firm's longevity since they enable an analysis of the contribution of short- and long-term corporate earnings (Santosa et al., 2020).

Green Accounting

Green accounting or environmental accounting involves identifying, measuring, and allocating environmental expenses. These costs are then integrated into business decision-making and disclosed to stakeholders (Lako, 2019; Lusiana et al., 2021). Accounting reports integrate social and environmental data with the presentation of financial data (Astuti et al., 2022). Costing, investment analysis, and strategic management decisions are just a few of the areas where environmental accounting is being used more and more. Many companies are currently dealing with environmental problems and looking for appropriate ways to inform the public and use this information to protect the environment better. Consequently, environmental accounting is a method of environmental preservation (Rounaghi, 2019).

Environmental performance

The regulation of environmental components is a crucial aspect of an organization's environmental management system, as it directly affects the quantifiable outcome of the system's environmental performance. The degree of environmental harm resulting from business operations is a key metric for measuring an organization's environmental performance. A corporation with less environmental damage is considered to have better environmental performance. On the other hand, the environmental performance of a corporation is likely to deteriorate as the amount of environmental damage caused by its operations increases. Therefore, it is essential for companies to prioritize effective regulation of their environmental components to ensure optimal environmental performance (Hanjani & Kusumadewi, 2022). In Indonesia, the implementation of environmental performance is measured by the achievements of companies participating in the Corporate Performance Rating Assessment Program in Environmental Management (PROPER). The basis for this assessment is then translated into a ranking of results symbolized by color categories starting from gold as the most/very good rating, then green as a good rating, blue as a moderate rating, red as a bad rating, and black as the most/very bad rating (Ministry of Environment, 2002).

Firm size

An indicator of a company's size based on its total assets is called the firm size. Firm size plays an important role in presenting financial statements (Seth & Mahenthiran, 2022). Companies with large sizes have more opportunities to expand their activities to earn revenue. The bigger the size, the greater the company's value (Surjandari et al., 2020; Younis & Sundarakani, 2020).

Hypothesis Development

1. Green Accounting on Financial Performance

Green accounting is proof that a company cares about the environment through environmental costs in the financial statements issued by the company for the environment. Green accounting can increase potential revenue and boost cost efficiency by being used more frequently (Wang et al., 2019). Increasing the social trust of stakeholders like the public and consumers will enhance financial performance, such as achieving maximum company profitability (Endiana et al., 2020). Research that supports green accounting has an effect on financial performance (Emmanuel, 2021; Lusiana et al., 2021; Pedron et al., 2021; Riyadh et al., 2020). However, it differs from a study by (Igbekoyi et al., 2022; Setiawan et al., 2020), green accounting has no effect on financial performance. Based on the explanation above, the following hypothesis is formulated:

H_1 : Green accounting has an effect on financial performance.

2. Environmental Performance on Financial Performance

Companies implementing environmental performance are also evidence of corporate responsibility towards stakeholders. Corporate social and environmental responsibility strengthens the relationship between the company and the communities in which it operates. Ignoring the interests of stakeholders can tarnish the company's public image, which will have a negative impact on its financial performance (Aggarwal, 2018). The company's environmental performance is influenced by several factors, including customers or consumers who want cleaner products without damaging the environment as well as environmentally friendly use and disposal. It means that businesses with strong environmental performance will undoubtedly attract more consumer attention, which will boost sales of the business's products and positively affect its business performance. Research that supports environmental performance affects financial performance (Clarkson et al., 2011; Hanjani & Kusumadewi, 2022; Iwata & Okada, 2011; Manrique, 2017; Sara et al., 2022). However, it differs from a study by (Abdullah et al., 2019; Gull et al., 2022; Lu & Taylor, 2018; Pintea et al., 2014; Rokhmawati et al., 2015) environmental performance does not affect financial performance. Based on the explanation above, the following hypothesis is formulated:

H₂ : Environmental performance has an effect on financial performance.

3. Green Accounting on Firm Value

Green accounting focuses not only on financial transactions and their objects, but also on social and environmental accounting. The company's value increases and its reputation improves with greater disclosure of corporate social responsibility (Chen & Lee, 2017). Therefore, companies with a positive reputation will have an impact on the value of the business. Research that supports green accounting has an effect on firm value (Dewi & Edward Narayana, 2020; Radhouane et al., 2020); however, it differs from a study by (Carandang & Ferrer, 2020; Qiu et al., 2016), green accounting has no effect on firm value. Based on the explanation above, the following hypothesis is formulated:

H₃ : Green accounting has an effect on firm value.

4. Environmental Performance on Firm Value

The state of the environment can affect how the public perceives a company and how well it performs. Investors and the community will benefit if the business pays attention to ethical environmental concerns in order to boost the firm value (Fauzi, 2022). Research that supports environmental performance influences firm value (Lestari & Restuningdiah, 2021; Sapulette & Limba, 2021; Wahidahwati & Ardini, 2021); however, it differs from a study by (Ratri & Dewi, 2017; Rinsman & Prasetyo, 2020; Soedjatmiko et al., 2021) environmental performance has no effect on firm value. Based on the explanation above, the following hypothesis is formulated:

H₄ : Environmental performance has an effect on firm value.

5. Financial Performance on Firm Value

Every company certainly wants to get a high value. For businesses to be able to continue operating, strong financial performance is crucial. A rise in financial performance, as indicated by the rise and fall of the profitability ratio, will affect the company's value, whether it is for better or worse, which suggests that shareholder prosperity is very high (Nuryaman, 2015; Pamungkas., 2020). Research that supports the effect of financial performance on firm value (Abdi et al., 2020; Dianawati & Fuadati, 2016; Salehi et al., 2021; Santosa et al., 2020); however, it differs from a study by (Angelina & Nursasi, 2021; Astuti et al., 2022), financial performance has no effect on firm value. Based on the explanation above, the following hypothesis is formulated:

H₅ : Financial performance an effect on firm value.

6. Financial Performance Mediate the Effect of Green Accounting on Firm Value

The costs incurred to carry out environmental management activities will affect public perception of the company as favorable. Companies that carry out environmental conservation programs will positively impact public trust, which will generate high trust and loyalty to the company (Lusiana et al., 2021). so that it can improve financial performance, which has an impact on company value. The greater the application of green accounting can affect the financial performance and value of the company. Research that supports the relationship between green accounting and firm value is mediated by financial performance (Ramadhany et al., 2021); however, it differs from a study by (Erlangga et al., 2021; Febriani et al., 2021), the relationship between green accounting and firm value is not mediated by financial performance. Based on the explanation above, the following hypothesis is formulated:

H₆ : Green accounting and firm value are mediated by financial performance.

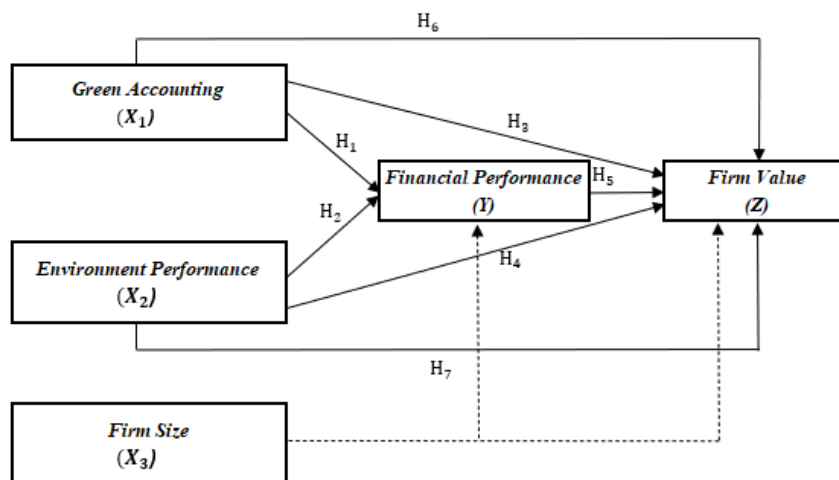
7. Financial Performance Mediates the Effect of Environmental Performance on Firm Value

Due to the company's production activities' disruption and even destruction of the environment as well as their effects on society, various environmental issues that arise in Indonesia can give rise to demands from the community. Companies use their social reporting to maintain healthier relationships with related parties to continue to earn more profits and grow (Hardiyansah et al., 2021). Because a variety of factors will affect the organization's goals, including financial performance and firm value, the company's environmental concern will be valuable. Research that supports the relationship between environmental performance and firm value is mediated by financial performance (Fauzi, 2022; Khairiyani et al., 2019); however, it differs from a study by (Deswanto & Siregar, 2018; Rinsman & Prasetyo, 2020), the relationship between environmental performance and firm value is not mediated by financial performance. Based on the explanation above, the following hypothesis is formulated:

H₇ : Environmental performance and firm value are mediated by financial performance.

Conceptual Framework

Green accounting and the environment are two independent variables examined in this study on firm value through finance and tested using firm size as a control variable. Based on this relationship, the following describes the research methodology applied in this study:



Source: Authors' elaboration

Figure 1. Conceptual Framework

RESEARCH METHOD

This study uses secondary data based on published annual reports. The sample for this study is all companies listed on the Indonesia Stock Exchange for the period 2016 – 2021. The method used in this research is quantitative with a causality design. The sampling method uses purposive sampling to test the interrelationships between variables. Based on these criteria, 83 companies were obtained as a research sample (2016 – 2021), so the total sample observed in this study was 498.

Table 1. Description of variables

Variables	Indicator	Source
Dependent Variable:		
Firm Value	Tobins Q = (Market Value + Total Debt)/ Total Assets	(Sukamulja, 2021), (Abdi et al., 2020)
Financial Performance	Return on Assets = Earning After Tax/Total Assets	(Fahmi, 2016), (Santosa et al., 2020)
Independent Variable: Dummy Variabel		
Green Accounting	1 = Environment cost, 0 = Nonenvironment cost	(Lusiana et al., 2021), (Astuti et al., 2022)
Environment Performance	PROPER rating = Gold score 5, Green score 4, Blue score 3, Red score 2, Black score 1.	(Ministry of Environment, 2002), (Hanjani & Kusumadewi, 2022)
Control Variable:		
Firm Size	Log of Total Assets	(Seth & Mahenthiran, 2022)

Source: Authors' elaboration

The data analysis method in this study is path analysis with two regression models. The direct and indirect influences of the independent variables on the dependent variable are calculated by path analysis (Wati, 2018).

Model 1 $ROA = \alpha + \beta_1 GA + \beta_2 EP + \beta_3 Size + \varepsilon 1 \dots (1)$

Model II $Tobin's Q = \alpha + \beta_4 GA + \beta_5 EP + \beta_6 Size + \beta_7 ROA + \varepsilon 2 \dots (2)$

FINDINGS AND DISCUSSION

Descriptive Statistical Analysis

The data description that is seen from each variable's average (mean), maximum, minimum, and standard deviation is described by the descriptive statistical test result.

Table 2. The Summary of Descriptive Statistic Test Result

Variable	Tobin's Q	ROA	GA	EP	Size
Mean	1.979116	5.787249	0.604418	3.267068	12.92841
Maximum	23.29	53.22	1	5	14.57
Minimum	0.08	-230.29	0	2	11.81
Std. Dev.	2.45148	15.52625	0.489467	0.580501	0.615011
Observations	498	498	498	498	498

Source: Authors' calculation

Table 2 found that the firm value proxied by Tobin's q obtains a mean value is 1.979116. the

maximum value of 23.29. the minimum value of 0.08 and the standard deviation value of 2.45148. For financial performance proxied by ROA obtains mean value is 5.787249. the maximum value of 53.22. the minimum value of -230.29 and the standard deviation value of 15.52625. Green accounting (GA) obtains a mean value of 0.604418. the maximum value of 1. The minimum is 0, and the standard deviation is 0.489467. Environmental performance (EF) obtains a mean value of 3.267068. the maximum value of 5. the minimum value of 2, and the standard deviation value of 0.5850501. The control variable proxied by firm size (Size) obtains a mean value of 12.92841. the maximum value of 14.57. the minimum value of 11.81 and the standard deviation value of 0.615011.

Hypothesis Test Result

Based on model testing with panel data. By providing "cross section-weight," the appropriate model is utilized to test this hypothesis using a common effect model. as shown in the table below:

Table 3. Testing Results of Model 1

Variable	Prediction	Main Model	Result	Robust Model	Result
Constant		-21.018088		-6.523431	
GA	β^+	1.849960*** (5.711152)	Accepted	1.945448*** (6.287802)	Accepted
EP	β^+	2.064992*** (5.146931)	Accepted	3.352873*** (12.80612)	Accepted
Size	β^+	1.422726*** (5.801458)	Accepted	- -	
R2		0.302963		0.309611	
Adjusted R2		0.298730		0.306822	
F-Statistic		71.57123		110.9936	

Note: ***significant a 1%. **significant a 5%. *significant a 10%

Source: Authors' calculation

The Effect of green accounting on financial performance

Based on Table 3, the results of the first hypothesis test show that green accounting significantly affects financial performance. Therefore H_1 is accepted. The higher the implementation of green accounting in a company, the higher its financial performance as evidenced by the analysis of financial ratios based on reporting by the company. A good company will disclose all relevant financial, social, and environmental data. The benefits a business can experience on the cost front include improving efficiency, avoiding potential liabilities, being better positioned to meet or exceed standards, and erecting barriers to entry for potential competitors. As a result, stakeholders like the public and consumers will have more social trust in the company, which will help it perform better financially. The study's findings are consistent with research done by (Emmanuel, 2021; Lusiana et al., 2021; Pedron et al., 2021; Riyadh et al., 2020).

The effect of environment performance on financial performance

Based on the results of the second hypothesis test show that environmental performance has a significant effect on financial performance. Therefore H₂ is accepted. The PROPER award outcomes were successful in luring investors to the business. The higher the environmental performance rating, the better the company's performance. The company's awareness that determines good environmental performance is a form of corporate accountability to society and the environment. A good reputation can increase public interest in buying its products, which will increase financial performance. Environmental performance can be taken into account when assessing a business's financial performance. The study's findings are consistent with research done by (Clarkson et al., 2011; Iwata & Okada, 2011; Manrique, 2017; Sara et al., 2022).

Table 4. Testing Results of Model 2

Variable	Prediction	Main Model	Hypothesis	Robust Model	Hypothesis
Constant		4.573135		1.57501	
GA	β^+	0.136895** (2.284477)	Accepted	0.168553** (2.566987)	Accepted
EP	β^+	0.134285** (2.344579)	Accepted	-0.107797* (-1911114)	Accepted
ROA	β^+	0.052068*** (16.00307)	Accepted	0.047188*** (13.81052)	Accepted
Size	β^+	-0.290406*** (-6.728975)		- -	
R2		0.421346		0.356665	
Adjusted R2		0.416651		0.352758	
F.Stat		89.74438		91.29119	

Note: ***significant a 1%. **significant a 5%. *significant a 10%

Source: Authors' calculation

The effect of green accounting on firm value

Based on Table 4, the results of the third hypothesis test show that green accounting has a significant effect on firm value. Therefore H₃ is accepted. The allocation costs will have a big impact on investors, so investor confidence will be high in the company. The allocation of environmental costs will increase the firm value and assist in realizing sustainable development so that investors and the public will receive a positive image and increase firm value. The study's findings are consistent with research done by (Dewi & Edward Narayana, 2020; Radhouane et al., 2020).

The effect of environment performance on firm value

Based on the results of the fourth hypothesis test show that environmental performance has a significant impact on firm value. Therefore H₄ is accepted. PROPER stands for corporate social responsibility, particularly in the context of environmental issues. It is because the business will

pay closer attention to its surroundings. Environmental disclosure made by companies is an obligation that must be carried out to comply with public rules and regulations. When a company has fulfilled its obligations in disclosing its environmental performance, it will influence investor perceptions. The more investors who place their shares in a company with a good image, it will certainly increase the company's progress so that it has an impact on increasing firm value. The study's findings are consistent with research done by (Lestari & Restuningdiah, 2021; Sapulette & Limba, 2021; Wahidahwati & Ardini, 2021).

The effect of financial performance on firm value

Based on the results of the fifth hypothesis test show that financial performance has a significant effect on firm value. Therefore H₅ is accepted. When the company's financial performance is good, the future prospects are also good. The higher the company's prospects, the more investors will want to invest in the company so that the stock price rises and the firm value increases. Good financial performance will increase the interest of investors to invest in order to increase the firm's value. The study's findings are consistent with research done by (Abdi et al., 2020; Dianawati & Fuadati, 2016; Salehi et al., 2021; Santosa et al., 2020).

Path Analysis

The path analysis model is used to show the direction of the relationship between research variables that are influenced by the existence of a mediating or intervening variable in the path of variable influence. The results of the path coefficient are sought first by the indirect path coefficient value by multiplying the estimated value of the X to Y variable with the estimated value of the Y to Z variable and then compared with the Sobel value obtained.

Table 4. Testing Results of Sobel

Variable	Direct	Indirect	t-Count	t-Table	Information
GA > ROA > Tobins Q	0.136895	1.096324	0.878780	1.66412	t-Count < t-Table
EP > ROA > Tobins Q	0.134285	0.107520	0.878971	1.66437	t-Count < t-Table

Source: Authors' Compilation. 2022

Financial performance mediates the relationship between green accounting on firm value

Based on Table 4, the results of the sixth hypothesis test show that the t-count is 0.878780 and the value is smaller than the t-table 1.66412, so it can be concluded that the relationship between green accounting and firm value is not mediated by financial performance Therefore H₆ is rejected. If the company can implement and increase the disclosure of environmental costs. Then it will be included as one of the efforts to implement green accounting, which will indirectly increase profitability because it can provide a good reputation for products or services for both the environment and social. Conversely, if it is not implemented it will reduce the product's selling power so that profits will decrease. The application of green accounting will have a big impact on investors so that investor confidence will be high in the company. The allocation of environmental costs will increase the value of the company and assist in realizing sustainable development so that investors and the public will receive a positive impression. Investors will have more faith in the company's stability in the future because this is being done to avoid the negative sanctions that the business will experience as a result of environmental issues. This will add to society's good image and increase the company's value. The study's findings are consistent with research done by (Erlangga et al., 2021; Febriani et al., 2021).

Financial performance mediates the relationship between environmental performance on firm value

The results of the seventh hypothesis test show that the t-count is the t-count is 0.878971, and the value is smaller than the t table 1.66437, so it can be concluded that the relationship between environmental performance and firm value is not mediated by financial performance. Therefore H₇ is rejected. For investment decisions to have no bearing on environmental performance, which is disclosed in environmental disclosures, and therefore have no bearing on the company's financial performance, environmental performance still has not yet become a disclosure of relevant information for investors. Not a review of the company by investors that takes into account how it performs in terms of the environment, but good or bad reporting of environmental performance in the company has no effect on financial performance because investors only pay attention to the company's condition in the market whether it is profitable or not when investing in increasing the firm value. The study's findings are consistent with research done by (Deswanto & Siregar. 2018).

Based on the results that have been obtained. Then it can be seen that the hypotheses can be accepted and rejected, as shown in the table below.

Table 6. Hypothesis Test Summary

Hypothesis	Explanations	Result
H1	The effect of green accounting on financial performance	Accept
H2	The effect of environment performance on finance performance	Accept
H3	The effect of green accounting on firm value	Accept
H4	The effect of environment performance on firm value	Accept
H5	The effect financial performance on firm value	Accept
H6	Financial performance mediates the relationship between green accounting on firm value	Reject
H7	Financial performance mediates the relationship between environmental performance on firm value	Reject

Source: Author's Compilation, 2022

CONCLUSIONS

This study shows that green accounting and environmental performance had an impact on financial performance. While green accounting, environmental and financial performance affect firm value. The relationship between green accounting, environmental performance, and firm value is not mediated by financial performance. Accordingly, companies that allocation of environmental costs and participate in the PROPER award can carry out activities that do not directly harm the environment, and the company is environmentally conscious. The PROPER program aims to provide a more comprehensive and in-depth assessment of the company's movements in developing programs that care for the environment and are proven to comply with applicable laws and regulations. So that the company's priorities include not only financial success but also a consideration for the environment, this condition fits the legitimacy and stakeholder theory. If companies could pay attention to environmental management. Its presence will be well received by the community, and the business will enjoy a positive reputation. High trust and loyalty enhance the company's profits and value.

LIMITATION & FURTHER RESEARCH

The scope of this research is limited to companies that publish company annual reports and obtain a Performance Rating Program (PROPER) certificate. Based on the findings of the studies

mentioned, it is recommended for further research to explore the conditions that may contribute to the differences observed in the results. It could involve increasing the sample population and describing businesses on a global scale rather than just focusing on local or Indonesian companies. Additionally, it may be beneficial to investigate the use of mediating variables other than environmental disclosure, as well as apply more general assessments of environmental performance. Finally, extending the research time to collect more samples could provide a more comprehensive understanding of the relationship between green accounting, environmental performance, financial performance, and firm value.

ACKNOWLEDGMENTS

We would like to express our sincere gratitude to Muhammadiyah University of Technology Jakarta and all other parties that contributed significantly to the success of this study. We thank the Editors and two anonymous referees for their critical comments and suggestions. We also thank participants at the 2nd International Conference on Multidisciplinary Conference Theme: "Toward Innovation Excellence; Reframing Socio-Economic. Science. Technology and Practice Relationship Research for Sustainable Innovation. Although this research is far from perfect. It is hoped that readers may find it a valuable addition to researchers.

REFERENCES

- Abdi, Y., Li, X., & Xavier, C. (2020). *Impact of Sustainability on Firm Value and Financial Performance in the Air Transport Industry*.
- Abdullah, R., Mahmuda, D., Malik, E., Pratiwi, E. T., Rais, M., Dja'wa, A., Abdullah, L. O. ., Hardin, Lampe, M., & Tjilen, A. P. (2019). The influence of environmental performance, environmental costs, and firm size on financial performance with corporate social responsibility as intervening variables (empirical study on manufacturing companies listed on the Indonesia stock exchange 2014- . *IOP Conf. Series: Earth and Environmental Science*, 343(012136). <https://doi.org/10.1088/1755-1315/343/1/012136>
- Aggarwal, P. (2018). *Relationship between Environmental Responsibility and Financial Performance of Firm : A Literature Review Relationship between Environmental Responsibility and Financial Performance of Firm : A Literature Review*. February. <https://doi.org/10.9790/487X-1311322>
- Angelina, M., & Nursasi, E. (2021). Pengaruh Penerapan Green Accounting dan Kinerja Lingkungan terhadap Kinerja Keuangan Perusahaan. *Jurnal Manajemen Dirgantara*, 14(2), 211–224.
- Astuti, T., Amyulianthy, R., & Kaniati, R. (2022). *Green Accounting , Financial Performance toward Firm Value*. 4(1), 1–12.
- Carandang, J. C., & Ferrer, R. C. (2020). *Effect of Environmental Accounting on Financial Performance and Firm Value of Listed Mining and Oil Companies in the Philippines*. 20(1), 117–134.
- Chabachib, M., Hersugondo, H., Ardiana, E., & Pamungkas, I. D. (2019). Analysis of Company Characteristics of Firm Values: Profitability as Intervening Variables. *International Journal of Financial Research*, 11(1), 60. <https://doi.org/10.5430/ijfr.v11n1p60>
- Chen, R. C. Y., & Lee, C.-H. (2017). The influence of CSR on firm value: an application of panel smooth transition regression on Taiwan. *Applied Economics*, 49(34), 3422–3434.
- Chinedu, E. N., & Ogochukwu, O. G. (2020). Relationship Between Environmental Accounting Disclosures And Financial Performance Of Manufacturing Firms In Nigeria. *International Journal in Management and Social Science*, Volume 08(02).
- Cho, C. H., & Patten, D. M. (2013). Critical Perspectives on Accounting Green accounting : Reflections from a CSR and environmental disclosure perspective. *Critical Perspectives on Accounting*,

- 24(6), 443–447. <https://doi.org/10.1016/j.cpa.2013.04.003>
- Cho, S. J., Chung, C. Y., & Young, J. (2019). *Study on the Relationship between CSR and Financial Performance*. 1–26. <https://doi.org/10.3390/su11020343>
- Clarkson, P. M., Li, Y., Richardson, G. D., & Vasvari, F. P. (2011). Does it really pay to be green? Determinants and consequences of proactive environmental strategies. *Journal of Accounting and Public Policy*, 30(2), 122–144.
- Deswanto, R. B., & Siregar, S. V. (2018). The associations between environmental disclosures with financial performance, environmental performance, and firm value. *Social Responsibility Journal*.
- Devie, D., Liman, L. P., Tarigan, J., & Jie, F. (2019). *Corporate social responsibility , financial performance and risk in Indonesian natural resources industry*. <https://doi.org/10.1108/SRJ-06-2018-0155>
- Dewi, P. P., & Edward Narayana, I. P. (2020). Implementasi Green Accounting, Profitabilitas dan Corporate Social Responsibility pada Nilai Perusahaan. *E-Jurnal Akuntansi*, 30(12), 3252. <https://doi.org/10.24843/eja.2020.v30.i12.p20>
- Dianawati, C. P., & Fuadati, S. R. (2016). Pengaruh CSR Dan GCG Terhadap Nilai Perusahaan: Profitabilitas Sebagai Variabel Intervening. *Jurnal Ilmu Dan Riset Manajemen*, 5(1), 1–20.
- Emmanuel, E. (2021). Green Accounting Reporting and Financial Performance of Manufacturing Firms in Nigeria. *American Journal of Humanities and Social Sciences Research*, 5(7), 179–187.
- Endiana, I. D. M., Dicriyani, N. L. G. M., Adiyadnya, M. S. P., & Putra, I. P. M. J. S. (2020). The Effect of Green Accounting on Corporate Sustainability and Financial Performance. *Journal of Asian Finance, Economics and Business*, 7(12), 731–738. <https://doi.org/10.13106/jafeb.2020.vol7.no12.731>
- Erlangga, C. M., Fauzi, A., & Sumiati, A. (2021). Penerapan Green Accounting dan Corporate Social Responsibility Disclosure Terhadap Nilai Perusahaan Melalui Profitabilitas. *Akuntabilitas*, 14(1), 61–78. <https://doi.org/10.15408/akt.v14i1.20749>
- Fahmi, I. (2016). *“Pengantar Manajemen Keuangan.”* Alfabeta.
- Fauzi, T. H. (2022). *The Effect of Environmental Performance on Firm Value with Mediating Role of Financial Performance in Manufacturing Companies in Indonesia*. 256–265.
- Febriani, E., Marota, R., & Alipudin, A. (2021). *Pengaruh Penerapan Green Accounting Dan Kepemilikan Saham Terhadap Kinerja Keuangan Serta Dampaknya Pada Nilai Perusahaan (Studi Kasus Pada 138 Perusahaan Penerima Penghargaan Green Industry Tahun 2019)*. 1–18.
- Gull, A. A., Saeed, A., Suleman, M. T., & Mushtaq, R. (2022). Revisiting the association between environmental performance and financial performance: Does the level of environmental orientation matter? *Corporate Social Responsibility and Environmental Management*, 29(5), 1647–1662.
- Hanjani, A., & Kusumadewi, R. K. A. (2022). Environmental performance and financial performance: Empirical evidence from Indonesian companies. *Corporate Social Responsibility and Environmental Management*. <https://doi.org/https://doi.org/10.1002/csr.2433>
- Hardiyansah, M., Agustini, A. T., & Purnamawati, I. (2021). The Effect of Carbon Emission Disclosure on Firm Value: Environmental Performance and Industrial Type. *Journal of Asian Finance, Economics and Business*, 8(1), 123–133. <https://doi.org/10.13106/jafeb.2021.vol8.no1.123>
- Igbekoyi, O. E., Solanke, F. T., Adeusi, S. A., Alade, M. E., & Agbaje, W. H. (2022). Environmental Accounting Disclosure and Financial Performance of Listed Multinational Firms in Nigeria. *Global Journal of Management and Business Research: D Accounting and Auditing*, 21(2). <https://doi.org/10.34257/GJMBRDVOL21IS2PG17>

- Iwata, H., & Okada, K. (2011). How does environmental performance affect financial performance? Evidence from Japanese manufacturing firms. *Ecological Economics*, 70(9), 1691–1700.
- Khairiyani, K., Mubyarto, N., Mutia, A., Zahara, A. E., & Habibah, G. W. I. A. (2019). Kinerja Lingkungan Terhadap Kinerja Keuangan Serta Implikasinya Terhadap Nilai Perusahaan. *ILTIZAM Journal of Shariah Economic Research*, 3(1), 41. <https://doi.org/10.30631/iltizam.v3i1.248>
- Lako, A. (2018). Akuntansi Hijau : Isu , Teori & Aplikasi. *Simposium Nasional Akuntansi XXI Samarinda, 6 September 2018*, 31.
- Lako, A. (2019). *Conceptual Framework of Green Accounting*. 15.
- Lee, K., Cin, B. C., & Lee, E. Y. (2016). Environmental responsibility and firm performance: The application of an environmental, social and governance model. *Business Strategy and the Environment*, 25(1), 40–53.
- Lestari, H. D., & Restuningdiah, N. (2021). *The Effect of Green Accounting Implementation on the Value of Mining and Agricultural Companies in Indonesia*. 173(Kra 2020), 216–223.
- Lu, L. W., & Taylor, M. E. (2018). *A study of the relationships among environmental performance , environmental disclosure , and financial performance*. 26(1), 107–130. <https://doi.org/10.1108/ARA-01-2016-0010>
- Lusiana, M., Haat, M. H. C., Saputra, J., Yusliza, M. Y., Muhammad, Z., & Bon, A. T. (2021). A review of green accounting, corporate social responsibility disclosure, financial performance and firm value literature. *Proceedings of the International Conference on Industrial Engineering and Operations Management*, 5622–5640.
- Mahrani, M., & Soewarno, N. (2018). *The effect of good corporate governance mechanism and corporate social responsibility on financial performance with earnings management as mediating variable*. 3(1), 41–60. <https://doi.org/10.1108/AJAR-06-2018-0008>
- Manrique, S. (2017). *Analyzing the Effect of Corporate Environmental Performance on Corporate Financial Performance in Developed and Developing Countries*. <https://doi.org/10.3390/su9111957>
- Ministry of Environment. (2002). *Number: 127/MENLH/2002 concerning Company Performance Rating Assessment Program in Environmental Management*.
- Nor, N., Aishah, N., Bahari, S., Adnan, N. A., Qamarul, M., Sheh, A., & Mohd, I. (2016). The Effects of Environmental Disclosure on Financial Performance in Malaysia. *Procedia Economics and Finance*, 35(October 2015), 117–126. [https://doi.org/10.1016/S2212-5671\(16\)00016-2](https://doi.org/10.1016/S2212-5671(16)00016-2)
- Nuryaman. (2015). The Influence of Intellectual Capital on The Firm's Value with The Financial Performance as Intervening Variable. *Procedia - Social and Behavioral Sciences*, 211, 292–298. <https://doi.org/10.1016/J.SBSPRO.2015.11.037>
- Pamungkas, R. D. P. imang dapit. (2020). The Effects of Financial Performance on Firm Value and Good Corporate Governance: Evidence from Indonesia. *International Journal of Innovation, Creativity and Change*, 13(12), 220–233.
- Pedron, A. P. B., Macagnan, C. B., Simon, D. S., & Vancin, D. F. (2021). Environmental disclosure effects on returns and market value. *Environment, Development and Sustainability*, 23, 4614–4633.
- Pintea, M., Stanca, L., Achim, S., & Pop, I. (2014). Is There a Connection Among Environmental and Financial Performance of a Company in Developing Countries ? Evidence. *Procedia Economics and Finance*, 15(14), 822–829. [https://doi.org/10.1016/S2212-5671\(14\)00527-9](https://doi.org/10.1016/S2212-5671(14)00527-9)
- Qiu, Y., Shaukat, A., & Tharyan, R. (2016). Environmental and social disclosures: Link with corporate financial performance. *The British Accounting Review*, 48(1), 102–116.
- Radhouane, I., Nekhili, M., Nagati, H., & Paché, G. (2020). Is voluntary external assurance relevant

- for the valuation of environmental reporting by firms in environmentally sensitive industries? *Sustainability Accounting, Management and Policy Journal*, 11(1), 65–98.
- Ramadhany, A. A., Fadlilah, A. H., Richmayati, M., Mustika, I., & Nabella, S. D. (2021). The Mediation Effect Firm Performance on Green Innovation and Firm Value: Evidence the Mining Industry. *Turkish Journal of Computer and Mathematics Education (TURCOMAT)*, 12(3), 1377–1783. <https://doi.org/10.17762/turcomat.v12i3.909>
- Ratri, R. F., & Dewi, M. (2017). *The Effect of Financial Performance and Environmental Performance on Firm Value with Islamic Social Reporting (ISR) Disclosure as Intervening Variable in Companies Listed at Jakarta Islamic Index (JII). 12003.*
- Republic Indonesia Law. (2007). *Law Number 40 of 2007 Concerning Limited Liability Companies.*
- Republic Indonesia Law. (2009). *Law Number 32 of 2009 concerning Environmental Protection and Management.*
- Rinsman, T. C. S., & Prasetyo, A. B. (2020). The Effects of Financial and Environmental Performances on Firm Value with Environmental Disclosure as an Intervening Variable. *Jurnal Dinamika Akuntansi*, 12(2), 90–99. <https://doi.org/10.15294/jda.v12i2.24003>
- Riyadh, H. A., Al-shmam, M. A., Huang, H. H., & Gunawan, B. (2020). The Analysis of Green Accounting Cost Impact on Corporations Financial Performance. *International Journal of Energy Economics and Policy*, 10(6), 421–426. <https://doi.org/10.32479/ijeep.9238>
- Rokhmawati, A., Sathye, M., & Sathye, S. (2015). *The Effect of GHG Emission , Environmental Performance, and Social Performance on Financial Performance of Listed Manufacturing Firms in Indonesia.* 211(September), 461–470. <https://doi.org/10.1016/j.sbspro.2015.11.061>
- Romero, J., Freedman, M., Romero, J. A., Freedman, M., & Connor, N. G. O. (2018). *The impact of Environmental Protection Agency penalties on financial performance.* June 2020. <https://doi.org/10.1002/bse.2239>
- Rounaghi, M. M. (2019). *Economic analysis of using green accounting and environmental accounting to identify environmental costs and sustainability indicators.* September. <https://doi.org/10.1108/IJOES-03-2019-0056>
- Salehi, M., Mahmoudabadi, M., Adibian, M. S., & Rezaei Ranjbar, H. (2021). The potential impact of managerial entrenchment on firms' corporate social responsibility activities and financial performance: evidence from Iran. *International Journal of Productivity and Performance Management*, 70(7), 1793–1815. <https://doi.org/10.1108/IJPPM-06-2019-0259>
- Santosa, P. W., Aprilia, O., & Tambunan, M. E. (2020). The Intervening Effect of the Dividend Policy on Financial Performance and Firm Value in Large Indonesian Firms. *International Journal of Financial Research*, 11(4). <https://doi.org/10.5430/ijfr.v11n4p408>
- Sapulette, S. G., & Limba, F. B. (2021). Pengaruh Penerapan Green Accounting, Dan Kinerja Lingkungan Terhadap Kinerja Keuangan Pada Perusahaan Manufaktur Di Bursa Efek Indonesia. *Jurnal Akun Nabelo: Jurnal Akuntansi Netral, Akuntabel, Objektiff*, 2(2), 31–43.
- Sara, Z., Rajak, A., Accounting, D., & Mollucas, N. (2022). *And Liquidity Influence Of The Implementation Of Green Accounting , Environmental Performance On The Profitability Of Manufacturing Companies In The Indonesia Stock Exchange In 2015 – 2019.* 16–21.
- Seth, R., & Mahenthiran, S. (2022). Impact of dividend payouts and corporate social responsibility on firm value–Evidence from India. *Journal of Business Research*, 146, 571–581.
- Setiawan, H., Tinggi, S., Ekonomi, I., Mayangsari, S., & Trisakti, U. (2020). *Analysis Of Financial Performance Of Pdams Affected By Environmental Performance And Environmental Accounting.* August. <https://doi.org/10.37745/ejbir/vol8.no5.pp38-55.2020>

- Singh, P. J., Sethuraman, K., & Lam, J. Y. (2017). Impact of corporate social responsibility dimensions on firm value: Some evidence from Hong Kong and China. *Sustainability*, 9(9), 1532.
- Soedjatmiko, S., Tjahjadi, B., & Soewarno, N. (2021). Do Environmental Performance and Environmental Management Have a Direct Effect on Firm Value? *Journal of Asian Finance, Economics and Business*, 8(1), 687–696. <https://doi.org/10.13106/jafeb.2021.vol8.no1.687>
- Soewarno, N., Hilal, A., Ramadhan, A., & Airlangga, U. (2020). *The Effect of Ownership Structure and Intellectual Capital on Firm Value with Firm Performance as an Intervening Variable*. 10(12), 215–236.
- Sukamulja, P. D. S. (2021). *Manajemen Keuangan Korporat Teori, Analisis, dan Aplikasi dalam Melakukan Investasi* (1st ed.). CV Andi Offset.
- Surjandari, D. A., Nurlaelawati, L., & Soma, A. M. (2020). Asset, capital structure, liquidity, firm size's impact on stock return. *International Journal of Commerce and Finance*, 6(2), 81–91.
- Utama, S. (2011). An evaluation of support infrastructures for corporate responsibility reporting in Indonesia. *Asian Business & Management*, 10(3), 405–424. <https://doi.org/10.1057/abm.2011.10>
- Wahidahwati, W., & Ardini, L. (2021). Corporate Governance and Environmental Performance: How They Affect Firm Value. *Journal of Asian Finance, Economics and Business*, 8(2), 953–962. <https://doi.org/10.13106/jafeb.2021.vol8.no2.0953>
- Wang, M.-X., Liang, L.-N., Siu, W. S., Fan, D., Sun, H.-R., Zhao, H.-H., Zhou, G.-J., & Wu, W.-J. (2019). Loss accounting of environmental pollution within Pearl River Delta region, South China. *Environmental Pollution*, 249, 676–685.
- Wati, N. L. (2018). *Metodologi Penelitian Terapan : Aplikasi Spss, Eviews, Smart PLS, dan AMOS, Ed (Revisi)*. Pustaka Amri.
- Wiengarten, F., Humphreys, P., Onofrei, G., & Fynes, B. (2017). The adoption of multiple certification standards: perceived performance implications of quality, environmental and health & safety certifications. *Production Planning & Control*, 28(2), 131–141.
- Yoon, B., & Chung, Y. (2018). The effects of corporate social responsibility on firm performance: A stakeholder approach. *Journal of Hospitality and Tourism Management*, 37, 89–96.
- Younis, H., & Sundarakani, B. (2020). The impact of firm size, firm age and environmental management certification on the relationship between green supply chain practices and corporate performance. *Benchmarking: An International Journal*, 27(1), 319–346.
- Zhang, H., Geng, C., & Wei, J. (2022). Coordinated development between green finance and environmental performance in China: The spatial-temporal difference and driving factors. *Journal of Cleaner Production*, 346, 131150. <https://doi.org/https://doi.org/10.1016/j.jclepro.2022.131150>