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THE EFFECT OF ENVIRONMENTAL ACCOUNTING, OPERATING CASH FLOW, AND FIRM SIZE ON FIRM VALUE

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Abstract. Firm value represents the fair market valuation of a business entity, reflecting the perceptions or assessments of its success—typically indicated by stock price performance. This study aims to provide empirical evidence on the influence of environmental accounting, operating cash flow, and firm size on firm value. A quantitative research approach was employed in this study. The research population comprises all companies listed on the Indonesia Stock Exchange (IDX) during the 2021–2023 period, with a purposive sampling technique yielding a total of 2,061 firm-year observations. Data analysis was conducted using multiple linear regression with the aid of STATA 17 software. The findings indicate that environmental accounting has a significant positive effect on firm value. In contrast, operating cash flow does not exhibit a statistically significant impact. Interestingly, firm size demonstrates a negative effect on firm value. These results contribute to the ongoing discourse in signal theory and stakeholder theory, offering deeper insights into how environmental practices and company characteristics influence market perceptions. Furthermore, the findings provide practical implications for investors and corporate management in strategic decision-making processes. They also serve as a valuable reference for future researchers seeking to explore related variables within the context of firm valuation.
Keywords: Environmental accounting, operating cash flow, firm size, firm value.

INTRODUCTION

Companies strive to achieve their primary objectives, namely to increase firm value, improve investor welfare, and generate profits efficiently through the optimal use of internal resources (Nurjanah & Srimindarti, 2023). This aligns with the company's long-term goal of enhancing firm value. Stakeholders' perceptions of a company's operational capabilities are largely influenced by its firm value (Christy & Sofie, 2023). Stock prices often serve as a reflection of a firm's value trajectory. A declining stock price may indicate a lower firm value, thereby reducing investor confidence and willingness to invest (Natsir & Yusbardini, 2020).

Stock prices, as reflected in indices such as the Indonesia Composite Index (IHSG), are commonly regarded as indicators of corporate performance and firm value, as well as overall market sentiment toward a company's economic condition. When the IHSG rises, investors tend to have a more optimistic view of the company, leading to an increase in stock prices, which in turn enhances firm value. From 2021 to 2023, the IHSG consistently increased. In 2021, the index reached IDR 6,600.68. In 2022, the IHSG rose by 3.79% compared to the previous year, closing at IDR 6,850.52. This growth continued into 2023, with a further 6.62% increase, bringing the closing value to IDR 7,303.89. However, this upward trend in the IHSG was not accompanied by a parallel increase in the prices of sectoral stocks. The performance of individual industry sectors on the Indonesia Stock Exchange, as represented by the IDX-IC sectoral index, revealed fluctuating stock prices

across sectors, indicating inconsistencies in sectoral performance despite the overall market growth.

Table 1.Sectoral Stock Prices 2021-2023

Corporate Sector	Year		
	2021	2022	2023
Energy	1,139.50	2,279.55	2,100.86
Raw Materials	1,234.38	1,216.13	1,307.47
Industry	1,036.69	1,174.34	1,093.76
Primary Consumer Goods	664.13	716.56	722.40
Non-Primary Consumer Goods	900.42	850.9	821.42
Health	1,420.07	1,564.97	1,376.16
Finance	1,526.86	1,414.92	1,458.32
Property & Real Estate	773.06	711.24	714.18
Technology	8,994.44	5,162.04	4,435.61
Infrastructure	959.27	868.64	1,570.03
Transportation & Logistics	1,599.38	1,661.94	1,601.51

Source: Indonesia Stock Exchange (2024)

Table 1 shows that certain sectors experienced consecutive negative growth in their sectoral stock indices from 2021 to 2023—namely the non-cyclical consumer goods and technology sectors. In contrast, only the cyclical consumer goods sector recorded consistent annual growth throughout the same period. Meanwhile, other sectors exhibited fluctuating sectoral stock price movements from year to year. This phenomenon highlights a notable disparity: although the Indonesia Composite Index (IHSG) increased steadily from 2021 to 2023, the performance of individual company stocks varied, with some even declining.

Firms can enhance their value by integrating corporate social responsibility (CSR) into their operational impact strategies (Aldama, 2022). One way to demonstrate such responsibility is by embedding environmental considerations into their overall business strategy. Neglecting environmental aspects in the long term may result in stagnant or declining firm value (Asrizon et al., 2021). In response to increasing environmental issues and growing demands from stakeholders, the concept of environmental accounting or green accounting has emerged. Environmental accounting has become a strategic factor in corporate development and plays a critical role in organizational sustainability (Abdullah, 2020:8). By disclosing environmental conservation efforts, companies can build a positive market reputation, which not only enhances their public image but also contributes to increasing overall firm value.

Higher operating cash flow is also associated with higher stock prices, thereby boosting firm value (Budiharjo, 2023). Operating cash flow serves as a crucial funding source for a company's day-to-day operations and is considered a key indicator of financial performance. Investors often interpret strong operating cash flow as a positive signal about a company’s financial health. A healthy cash flow indicates the company's ability to generate cash from its core business activities, enabling it to meet obligations, invest, and

distribute dividends to shareholders. Enhancing a company's operating cash flow is therefore essential for sustainable operations, growth, and delivering added value to stakeholders.

Firm size is closely associated with corporate stability and is a significant factor in attracting investors. According to Panjaitan & Supriyati (2023), firm size reflects the scale of a company and indicates how easily it can attract capital from investors. Compared to smaller firms, investors are more likely to invest in larger organizations (Kusumaningrum & Iswara, 2022). Larger firms generally possess more resources and diversified business operations. Long-term investors often perceive large firms as safer investments. Their greater visibility and stronger reputation also make it easier for them to raise capital, which ultimately contributes to increased firm value, as investors tend to pay higher prices for shares in well-established companies.

This study encompasses all business sectors listed on the Indonesia Stock Exchange during the 2021–2023 period. Given that each industry has its own characteristics and challenges in enhancing firm value, this broad scope allows for greater generalizability of findings. This comprehensive sectoral inclusion aligns with the recommendation by Arofah & Maharani (2021), who suggested expanding the research scope to obtain more generalizable results. The 2021–2023 timeframe was selected to avoid data bias caused by the COVID-19 pandemic.

The objectives of this study are as follows: 1) To empirically examine the effect of environmental accounting on firm value. 2) To empirically examine the effect of operating cash flow on firm value. 3) To empirically examine the effect of firm size on firm value..

LITERATURE REVIEW

Signal Theory

Signaling theory was first introduced by Spence (1973) in his work Job Market Signaling. The theory describes a situation in which one party (the signal sender) possesses more information than the other party (the signal receiver). Based on signaling theory, management, as the internal party, has greater knowledge of the company's condition than shareholders or external parties. When a company sends positive signals, it often triggers positive responses from the signal receivers (Sulistiono & Nur, 2024). Such positive information, which differentiates the company from its competitors, plays a role in improving public perception of the firm's value. This improved perception may then lead to higher stock prices, which subsequently increases the overall firm value (Lestari & Khomsiyah, 2023). Companies that are able to consistently convey positive signals in competitive markets can gain a competitive advantage and strengthen their market position.

Stakeholder Theory

Stakeholder theory was first introduced by R. Edward Freeman in 1984 in Strategic Management: A Stakeholder Approach. The theory explains the company's relationship with parties that are affected by or can affect its operations. It emphasizes that companies have obligations not only to shareholders but to all stakeholders involved. According to stakeholder theory, a company should consider the interests of all relevant stakeholders, beyond just the goal of maximizing profits. Practicing accountability for the impact of its operations can attract stakeholder attention and potentially increase their interest in

purchasing company shares. As stakeholder interest increases, stock prices tend to rise, which contributes to increasing the firm's value (Saputri et al., 2023).

Firm Values

Firm value is defined as the price that potential buyers are willing to pay for a company's stock in the market (Toni & Silvia, 2021). An increase in market value reflects investor confidence in the company's ability to generate future profits and deliver returns. Firm value represents the overall economic worth of a business, commonly measured through its stock price. In other words, a company's ability to generate shareholder value is indicated by a high stock price (Daromes & Kawilarang, 2020). Firm value also serves as a key indicator for investors in assessing the condition and prospects of a company (Endiana & Suryandari, 2020).

Firm value is often used in investment decision-making, company performance evaluation, and business strategy planning. A high firm value reflects investor confidence in the company's long-term profit potential. Tobin's Q is widely used as a measure of firm value, as it incorporates not only equity but also debt, share capital, and the company's assets. A Tobin's Q value greater than 1 indicates that the market values the company higher than the value of its recorded assets. In contrast, a Tobin's Q value below 1 suggests that the cost to replace assets is higher than the firm's market valuation (Dzahabiyya et al., 2020).

The Effect of Environmental Accounting on Firm Value

According to stakeholder theory, environmental accounting is a strategic practice aimed at managing environmental impacts and maintaining positive stakeholder relationships. Stakeholders continuously assess a company's environmental participation, motivating management to innovate through environmentally friendly initiatives (Sari & Gantino, 2022). These innovations help reduce environmental damage caused by operations and may increase profits, ultimately satisfying stakeholder interests. Transparent and comprehensive environmental disclosures can build investor trust and thereby enhance firm value (Wu & Li, 2023).

Environmental accounting can also improve operational efficiency by encouraging resource optimization and waste minimization. The implementation of environmental accounting is expected to positively influence and strengthen the company's public image, particularly regarding its production practices (Amira & Siswanto, 2022). Such practices may help companies build a reputation for environmental responsibility, thereby attracting public and investor attention—especially from those who are environmentally conscious. Companies that actively support environmental sustainability also have the potential to reduce long-term costs, contributing further to firm value (Meilan et al., 2023). This is consistent with previous findings by Abdurrahman (2019), Anggita et al. (2022), Arofah & Maharani (2021), Dewi & Narayana (2020), Hasibuan et al. (2023), Hazmi et al. (2024), Khan & Lone (2023), and Sulistiono & Nur (2024), which concluded that environmental accounting positively affects firm value. The better the implementation of environmental accounting, the more likely it is to enhance firm valu.

H1: Environmental accounting has a positive effect on firm value.

The Effect of Operating Cash Flow on Firm Value

Operating cash flow is one of the main indicators of a business's core operational activity. It serves as a signal to investors. A healthy operating cash flow is interpreted by investors as a positive signal from the company (Sugiyarti et al., 2023). Strong operating cash flow indicates a company's ability to generate income from its primary business

activities, which can be used to meet obligations, reinvest, and pay dividends. Both investors and creditors carefully monitor a company's operating cash flows. A company with positive and growing operating cash flow over time is viewed as having promising future prospects. This ultimately increases firm value due to heightened investor and creditor confidence.

Previous studies, such as those by Amin & Juanda (2021), Angkotasan et al. (2023), Daniel & Hermanto (2024), Dunakhir (2023), Launtu (2021), and Tangngisalu (2020), have found that operating cash flow positively influences firm value. According to these studies, companies with strong operating cash flow tend to exhibit higher firm value compared to those with weak cash flow.

H2: Operating cash flow has a positive effect on firm value.

The Effect of Firm Size on Firm Value

One of the positive signals a company may provide is its firm size, especially in relation to management's ability to invest (Benteng et al., 2024). Companies in the growth phase often receive positive investor responses, reflected in rising stock prices due to increased demand and supply. Larger companies typically have easier access to financial resources to support business expansion and development. This contributes to company growth, marked by increasing resources, strategic partnerships, and expanded business outcomes. Studies by Afridi et al. (2022), Akin et al. (2024), Dewi & Wirawati (2024), Parnata et al. (2023), Gz & Lisiantara (2022), Hapsoro & Falih (2020), Nursetya & Nur Hidayati (2021), and Radja & Artini (2020) indicate that firm size positively influences firm value. Larger firms are more likely to obtain funding sources, which ultimately enhances their value.

H3: Firm size has a positive effect on firm value.

METHOD

Firm value is the dependent variable in this research. Firm value is the fair value of a company that reflects views or assessments of the success of a company, which is always associated with stock prices (Handoko & Santoso, 2023). Firm value is measured using the Tobin's Q ratio. Tobin's Q is used because it does not only take into account stocks, but also elements of debt, share capital, and the company's assets. A Tobin's Q value >1 indicates that the firm value is more significant than the recorded assets. A Tobin's Q value <1 indicates that the replacement cost of support is greater than the market value (Dzahabiyya et al., 2020). Tobin's Q, as modeled by Lindenberg & Ross (1981), can be calculated using the following formula.

$$\text{Tobin's Q} = \frac{(\text{MVE} + \text{DEBT})}{\text{Total Assets}}$$

Environmental accounting refers to the activity of measuring, managing, and reporting the environmental impact of a company's operations. Environmental accounting presents both financial and non-financial aspects of a company. According to Rosaline & Wuryani (2020), environmental accounting is measured using a dummy variable by assigning a score to companies that apply environmental costs. A score of 1 indicates that the company has environmental cost components, and 0 indicates that the company does not have environmental cost components.

Operating cash flow originates from the company's core operating activities, which include revenue-generating and cost-incurring activities. Operating cash flow shows how much cash the company can generate from its primary operations. Operating cash flow can be found in the company's cash flow statement. One way to measure a company's

operating cash flow is by calculating the difference between cash received from operating activities during the current period (t) and the previous period (t-1), divided by the cash received in the previous period (t-1) (Firdarini & Kunaidi, 2022).

$$\text{Operating Cash Flow (OCF)} = \frac{\text{OCF(t)} - \text{OCF(t} - 1)}{\text{OCF (t} - 1)} \text{ x } 100\%$$

Firm size refers to the scale or size of a business. The size of a company can be determined by the total value of its assets. According to Harahap (2016) in Goh (2023:49), firm size is measured using the natural logarithm (Ln) of the company's average total assets. Total assets are used as they reflect the scale and financial capability of the firm.

$$\text{Firm Size} = \text{In (Total Assets)}$$

The sampling method used in this study is non-probability sampling with a purposive sampling technique. The samples were selected based on the following criteria: (1) Public companies listed on the Indonesia Stock Exchange (IDX) during the period 2021–2023; (2) Companies not classified under the financial sector during that period; and (3) Companies that published annual reports and sustainability reports for the years 2021–2023. Out of a population of 2,491 firms, a total of 2,036 observations met the criteria and were selected as the research sample.

This study uses quantitative data in the form of secondary data collected through non-participant observation. The data were obtained from annual reports and sustainability reports of companies listed on the Indonesia Stock Exchange (IDX) for the years 2021–2023. These reports were accessed through the official IDX website (www.idx.co.id) and the official websites of the respective companies.

The data were analyzed using STATA version 17. The data analysis includes descriptive statistical analysis, multiple linear regression model estimation, normality test, multicollinearity test, autocorrelation test, and heteroscedasticity test. This study also conducted multiple linear regression analysis and hypothesis testing.

$$Y = \alpha + \beta 1X1 + \beta 2X2 + \beta 3X3 + \varepsilon \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (1)$$

RESULT AND DISCUSSION

Descriptive Statistical Analysis

Table 2. Results of Descriptive Statistical Analysis

Variables	Observation	Mean	Standard Deviation	Minimum	Maximum
Company Values	2,061	5,644	10,783	0.216	43,811
Environmental Accounting	2,061	0.536	0.499	0	1
Operating Cash Flow	2,061	-0.318	2,198	-5,869	4,758
Company Size	2,061	28,153	1,927	17,982	33,731

Source: processed secondary data (2025)

Descriptive statistical analysis of firm value (FV) shows a minimum value of 0.216 and a maximum of 43.811, with an average of 5.644, which is close to the minimum value. This average indicates that most of the sample has a relatively low firm value. The standard deviation is 10.783, which is higher than the average, indicating high data dispersion or heterogeneity. Environmental accounting (EA) has values ranging from 0 to 1, with an average of 0.536, which is close to the maximum value. This average indicates that most

companies implement and disclose environmental accounting. The standard deviation of 0.499 shows that the data is homogeneous with low variation among companies. Operating cash flow (CFO) shows a minimum value of -5.869 and a maximum of 4.758, with an average of -0.318, which is close to the maximum value. This indicates that most companies have a relatively high level of operating cash flow. The standard deviation of 2.087 indicates that operating cash flow data is heterogeneous or varies greatly. Firm size (SIZE) has a minimum value of 17.983 and a maximum of 33.731. The average value is 28.153, which is close to the maximum, indicating that most companies in the sample are large-sized. The standard deviation is 1.927, which is lower than the average, indicating that firm size data is relatively homogeneous, with a low range of variation among companies.

Selection of Panel Data Regression Model

Table 3. Results of Regression Model Selection

Testing	Prob	Results	Decision
Chow Test	0.0000	Prob < 0.05	FEM
Lagrange Multiplier Test	0.0000	Prob < 0.05	BRAKE
Hausman test	0.0000	Prob < 0.05	FEM

Source: processed secondary data, 2025

The selection of the best model to be used can be seen through the probability values of the Chow test, Lagrange Multiplier test, and Hausman test. The Hausman test, which is used to select the best model between the Random Effect Model (REM) and the Fixed Effect Model (FEM), shows a probability value of 0.000, which is smaller than 0.05; therefore, the fixed effect model is considered the best model for panel data regression in this study.

Classical Assumption Test

Normality Test

The normality test is conducted to determine whether the residuals are normally distributed or not. The normality test uses the Skewness and Kurtosis test. Data are considered normally distributed when the Prob > z value is greater than the significance level of 0.05. The following is the result of the Skewness and Kurtosis test in this study.

Table 4.Normality Test

Variables	Observation	Pr(skewness)	Pr(kurtosis)	Joint test	
				Adjchi2(2)	Prob>chi2
e	2,061	0.0000	0.0000	192.04	0.0000

Source: processed secondary data (2025)

The Prob > z value is 0.0000 or less than the significance level of 0.05, indicating that the variables in this study are not normally distributed. However, this study uses panel data with a large sample size, which benefits from the Central Limit Theorem. This theorem states that the sample mean will approach a normal distribution as the number of observations increases, thus allowing the normality assumption to be disregarded (Pek et al., 2018). Based on this theorem, a sample size greater than 30 can be considered to have a normal distribution.

Multicollinearity Test

The multicollinearity test is conducted to detect the presence of correlation among the independent variables in a regression model. Multicollinearity can be identified by examining the Variance Inflation Factor (VIF) values. A variable is said to exhibit multicollinearity if the VIF value is less than 5. The results of the multicollinearity test are presented in Table 5 below.

Table 5.Multicollinearity Test

Variable	Colinearity Statistics	
	VIF	1/VIF
Environmental Accounting	2.26	0.443
Operating Cash Flow	1.02	0.978
Company Size	2.29	0.436
Mean VIF	1.86	

Source: processed secondary data (2025)

The VIF values for each variable are as follows: firm size is 2.29, environmental accounting is 2.26, and operating cash flow is 1.02. These results indicate that there is no multicollinearity issue among the variables in this study, as the VIF values for each variable are less than 5, with an average VIF of 1.86, which is also below the threshold of 5.

Autocorrelation Test

The autocorrelation test is conducted to examine serial correlation in the residuals (errors) of the estimated panel regression model. This study employs the Wooldridge test for autocorrelation. The data do not exhibit autocorrelation problems if the Prob > F value is greater than 0.05. The results of the autocorrelation test are presented in Table 6 below.

Table 6. Autocorrelation Test

Model	Prob > F
1	0,000

Source: processed secondary data (2025)

The autocorrelation test yielded a Prob > F value of 0.0000. Since this value is less than 0.05, it can be concluded that autocorrelation exists among the variables in this study. To address the autocorrelation issue, robust standard errors were applied. Robust standard errors are used to correct the calculation of standard errors and to ensure valid inferential statistics when certain regression assumptions are violated.

Heteroscedasticity Test

The heteroskedasticity test is conducted to determine whether there is an unequal variance in the residuals across observations in the regression model. This study employs the Modified Wald Statistic to test for heteroskedasticity in the residuals of the fixed effect regression model. A probability value greater than the 0.05 significance level indicates no heteroskedasticity issue, whereas a probability value less than 0.05 indicates the presence of heteroskedasticity.

Table 7. H**eteroscedasticity Test**

Model	Prob>chi2
Constant	0,000

Source: processed secondary data (2025)

The heteroskedasticity test shown in Table 7 shows that the data with a total of 2,061 has a probability value of 0.000. This value <0.05, so it is known that there is a heteroskedasticity problem. This heteroskedasticity problem is overcome by using robust standard error or heteroskedasticity robust standard errors introduced by econometrician White, 1980. Robust standard error corrects the calculation of standard errors without changing the regression coefficient results.

Multiple Linear Regression Test

Table 8. Multiple Linear Regression Test

Variables	Coefficient	Robust Standard Error	t	P>|t|
Environmental Accounting	0.793	0.264	3.00	0.003
Operating Cash Flow	0.058	0.035	1.61	0.109
Company Size	-5,121	0.598	-8.56	0,000
Constant	149,421	16,809	8.89	0,000
Prob>F 0.0000				
R-squared 0.1726				

Source: processed secondary data (2025)

The value of the unstandardized beta coefficient is found in the coefficient column and is used as the value in the regression equation. The regression equation obtained through the multiple linear regression test is as follows.

Y = 149,421 + 0,793 (EA) + 0,058 (CFO) – 5,121 (SIZE) + e

This linear regression equation describes the relationship between the independent variables (X) and the dependent variable (Y). The equation can be explained as follows:

1) The constant value of 149.421 indicates that when the independent variables, namely environmental accounting (X1), operating cash flow (X2), and firm size (X3), are equal to zero or constant, the firm value (Y) is 149.421.
2) When the variables operating cash flow (X2) and firm size (X3) have constant values and the regression coefficient of environmental accounting (X1) is 0.793 or increases by 1 unit, then the firm value (Y) increases by 0.793.
3) When the variables environmental accounting (X1) and firm size (X3) have constant values and the regression coefficient of operating cash flow (X2) is 0.058 or increases by 1 unit, then the firm value (Y) increases by 0.058.
4) When the variables environmental accounting (X1) and operating cash flow (X2) have constant values and the regression coefficient of firm size (X3) is -5.121 or increases by 1 unit, then the firm value (Y) decreases by 5.121.

Hypothesis Testing

Model Feasibility Test (F Test)

The F-test was conducted with a significance level of 5% (0.05). A probability value less than 0.05 indicates that the regression model is feasible to use in the study, and vice versa. The test conducted to assess the feasibility of the model showed a probability value of 0.0000, which is smaller than the 0.05 significance level, indicating that this study is feasible to use.

Table 9. Coefficient of Determination Test

Model	Prob>F
1	0.0000

Source: processed secondary data (2025)

Coefficient of Determination Test (R2 Test)

The Coefficient of Determination (R2) test is conducted to measure how well the model is able to explain the variation in the dependent variable and describe the contribution of the independent variables to the dependent variable. The test results show that the R2 value is 0.1726 or 17.26%, which means that the independent variables, namely environmental accounting, operating cash flow, and firm size, are simultaneously able to explain 17.26% of the changes in firm value. The remaining 82.74% is influenced by other variables that are not included in this research model.

Table 10. Coefficient of Determination Test

Model	R Square
1	0.1726

Source: processed secondary data (2025)

Hypothesis Test (T-Test)

The hypothesis test (t-test) serves to evaluate the extent to which independent variables affect the dependent variable. The significance level for the t-test is 0.05. The results of the t-test for each hypothesis can be interpreted as follows:

1) First Hypothesis Testing (H1)

In the first hypothesis testing, environmental accounting (EA) has a significance value of 0.003 and a t-statistic value of 3.00 with a positive direction. Since the significance value is smaller than the 0.05 significance level, it indicates that environmental accounting has a positive effect on firm value in companies listed on the IDX during the 2021 to 2023 period. Therefore, the first hypothesis (H1) is accepted as it is supported by empirical findings. These results indicate that the higher the company's attention to environmental aspects in its financial reporting, the greater the firm value generated.

2) Second Hypothesis Testing (H2)

In the second hypothesis testing, operating cash flow (OCF) has a significance value of 0.109 and a t-statistic value of 1.68. The significance value is greater than the 0.05 significance level. This indicates that operating cash flow does not affect firm value. Therefore, the second hypothesis (H2) is rejected because the results show that operating cash flow has no effect on firm value.

3) Third Hypothesis Testing (H3)

In the third hypothesis testing, firm size (SIZE) has a significance value of 0.000 and a t-statistic value of -8.56. The significance value is smaller than the 0.05 significance level, but the coefficient direction is negative. Therefore, the third hypothesis (H3) is rejected because firm size has a negative effect on firm value.

The Effect of Environmental Accounting on Firm Value

The first hypothesis (H1) states that environmental accounting has a positive effect on firm value. The data analysis results in Table 4.12 show a significance value of 0.003, which is smaller than the significance level of 0.05, and a positive t-statistic value of 3.00. These results indicate that there is a positive influence of environmental accounting in

companies listed on the Indonesia Stock Exchange from 2021 to 2023 on firm value. This finding is in line with the first formulated hypothesis; thus, the first hypothesis (H1) in this research is accepted.

The findings indicate that the greater a company's awareness of its environmental impact, the more positively stakeholders and investors assess the company, which in turn increases firm value. The implementation of environmental accounting, indicated by the disclosure of environmental costs, significantly impacts firm value in the eyes of stakeholders and investors. As awareness of environmental issues grows, investors are beginning to prioritize investments in sustainable companies. Strong environmental accounting practices can help companies operate sustainably, making it easier to access funding sources at lower capital costs. Environmental accounting practices, through the implementation of environmentally friendly activities and proper waste management, provide long-term positive effects for the environment and ultimately generate a positive response toward the company.

These findings are consistent with signaling theory and stakeholder theory. Companies that report their environmental aspects send a positive signal to investors and other stakeholders regarding the company's commitment to sustainability and good risk management. This research supports stakeholder theory, which serves as a basis for how companies interact with parties that influence or are influenced by the company. Environmental accounting disclosure becomes one of the ways companies demonstrate accountability and responsiveness to broader stakeholder concerns regarding environmental issues. These findings indicate that during the observation period, stakeholder responses or appreciation for environmental accounting practices can be translated into a factor in increasing firm value.

This research is in line with previous studies by Anggita et al. (2022), which stated that the increase in environmental accounting leads to an increase in firm value, and conversely, if environmental accounting declines, so does firm value. By considering the environmental impact of the company, environmental accounting aims to provide a more realistic picture of overall financial performance (Khan & Lone, 2023). This research is also supported by studies conducted by Abdurrahman (2019), Arofah & Maharani (2021), Dewi & Narayana (2020), Hasibuan et al. (2023), Nugroho (2023), Odunayo et al. (2023), Sulistiono & Nur (2024), and Tanjung et al. (2021), which stated that environmental accounting positively affects firm value. The implementation of environmental accounting carried out by companies can increase firm value.

The Effect of Operating Cash Flow on Firm Value

The second hypothesis (H2) states that operating cash flow has a positive effect on firm value. Based on the research results, the significance value of t for operating cash flow is 0.109, which is greater than the significance level of 0.05. The results show that operating cash flow is not significant to firm value or there is no effect of operating cash flow on firm value. Therefore, it can be concluded that the second hypothesis in this research is rejected.

The research results that test the effect of operating cash flow on firm value with reference to signaling theory show that operating cash flow has no effect on firm value. These results do not support the signaling theory, which states that internal parties have more complete information about the company's prospects and condition compared to external parties. Managers attempt to send relevant signals (information) to investors to

reduce information asymmetry and influence investors' assessment of firm value. However, according to the findings of this study, it can be interpreted that investors do not consider operating cash flow a strong or unique signal in valuing a company. This may be due to very high or low information asymmetry, where the signal about operating cash flow is less of a concern to investors compared to other more relevant information. Therefore, this research implies that operating cash flow as a single signal is not the main determinant of firm value, and investors will consider other signals more.

This finding is not consistent with several previous studies that indicated a positive effect of the operating cash flow variable on firm value. However, these results are in line with studies conducted by Fajri & Juanda (2021), Herman & Chaidir (2023), and Susilowati & Meidiyustiani (2023), which stated that operating cash flow has no effect on firm value. Operating cash flow is not significant because the calculation only includes cash flows based on operating activities, while a company's activities are also divided into investing and financing activities, so it does not guarantee that the company will distribute dividends (Octavianus & Mala, 2020). This condition shows that the operating cash flow owned by the company is inadequate to be used as a reference for investors to increase their desire to invest in the company, thereby failing to increase firm value.

The Effect of Firm Size on Firm Value

The third hypothesis (H3) states that firm size has a positive effect on firm value. The data analysis results show a significance value for firm size of 0.000 with a t-statistic value of -8.56. The significance value is smaller than the 0.05 significance level, indicating that firm size has an effect on firm value, but in a negative direction. This result is not in line with the third formulated hypothesis, and therefore, the third hypothesis (H3) in this research is rejected.

The findings that test the effect of firm size on firm value show that firm size has a negative effect on firm value. This result indicates that investors may perceive very large firms as having higher potential costs due to operational complexity and less flexibility in responding to rapid market changes. Large firm size may signal that the company has entered a mature phase with limited growth prospects, resulting in a slower potential increase in firm value compared to smaller-scale companies.

This research is not in line with the study by Dewi, I & Wirawati, N (2024), which found that firm size positively affects firm value. Larger companies tend to have higher firm value, but according to this study, when a company has a large size, it must incur higher costs to manage operational challenges and requires the absorption of more resources. However, this research is consistent with the studies by Halimah & Maharani (2024) and Ismanto (2023), which show that the higher the firm size, the lower the firm value. This result implies that when a company's size, as indicated by its total assets, is large, it tends to reduce investor interest in investing in the company, thus leading to a decline in firm value.

CONCLUSION

Overall, the results of the tests on companies listed on the Indonesia Stock Exchange over the three-year period show that the first hypothesis (H1) is proven, namely that environmental accounting has a positive effect on firm value. This finding indicates that environmental accounting information or practices disclosed by companies in their annual or sustainability reports are positively responded to by the capital market, which

impacts the increase in firm value. The second hypothesis test (H2) shows that operating cash flow has no effect on firm value. This finding suggests that the market's assessment of firm value is not directly correlated with the variations or values of operating cash flow reported by the company in its cash flow statement. The third hypothesis test (H3) shows that firm size has a negative effect on firm value. This finding indicates that companies with larger operational scales actually have lower market values.

The suggestion that can be conveyed is to use other measurements for environmental accounting, such as the amount of environmental accounting disclosure. The test on operating cash flow shows no effect on firm value, which may be due to the existence of negative operating cash flow values, so subsequent research may consider using only positive operating cash flow values.

REFERENCES

Abdullah, M. W. (2020). *Ragam Isu dan Konsep Akuntansi Lingkungan Perspektif Keislaman*. http://ebooks.uin-alauddin.ac.id/

Abdurrahman, A. P. (2019). Impact of Green Accounting on Company Value: Evidence from the Nigerian Companies. *Arthatama Journal of Business Management and Accounting*, *3*(1), 16–26.

Afridi, F. e A., Khan, Y., Zafar, S., & Ayaz, B. (2022). The Effect of Firm Size, Investment Opportunity Set, and Capital Structure on Firm Value. *International Journal of Social Sciences and Entrepreneurship (IJSSE)*, *2*(2), 32–46. https://orcid.org/0000-0001-5698-3497

Akin, I., Akin, M., Satiroglu, H., & Jhamb, M. (2024). Influence of Growth, Capital Structure, Profitability, and Size on FTSE 100 Enterprise Value. *Journal of Corporate Accounting and Finance*. https://doi.org/10.1002/jcaf.22761

Aldama, N. (2022). Pengaruh Struktur Modal, Profitabilitas dan Akuntansi Manajemen Lingkungan Terhadap Nilai Perusahaan. *Jurnal Ilmiah Manajemen, Ekonomi Dan Bisnis*, *1*, 91–105. http://ejurnal.provisi.ac.id/index.php/JIMEB

Amin, H., & Juanda. (2021). Pengaruh Modal Kerja Bersih, Arus Kas Operasi dan Beban Bunga terhadap Nilai Perusahaan. *Jurnal Ilmiah Mahasiswa Ekonomi Manajemen* , *6*(1), 92–107. http:jim.unsyiah.ac.id/ekm

Amira, A., & Siswanto. (2022). Pengaruh Penerapan Akuntansi Lingkungan Terhadap Nilai Perusahaan Consumer Non-Cyclicals yang Terdaftar di Bursa Efek Indonesia. *Jurnal Pajak Dan Keuangan Negara*, *4*(1S), 200–210.

Anggita, W., Nugroho, A. A., & Suhaidar. (2022). Carbon Emission Disclosure And Green Accounting Practices on The Firm Value. *Jurnal Akuntansi*, *26*(3), 464–481. https://doi.org/10.24912/ja.v26i3.1052

Angkotasan, F. F. F., Atarwaman, R. J. D., & Leatemia, S. Y. (2023). Pengaruh Arus Kas Operasi, Ukuran Perusahaan, dan Leverage Terhadap Nilai Perusahaan Pada Perusahaan Manufaktur Sektor Industri Dasar dan Kimia Yang Terdaftar di Bursa Efek Indonesia Tahun 2019-2021. *Jurnal Akuntansi*, *9*(1), 29–40.

Arofah, A. A., & Maharani, D. A. (2021). Determinasi Implementasi Akuntansi Lingkungan dan Kinerja Lingkungan Terhadap Nilai Perusahaan Melalui Pengungkapan Informasi Lingkungan. *Jurnal E-Bis (Ekonomi-Bisnis)*, *5*(2), 365–379. https://doi.org/10.37339/e-bis.v5i2.697

Asrizon, R., Asmeri, R., & Ardiany, Y. (2021). Pengaruh Kinerja Lingkungan dan Pengungkapan Lingkungan Terhadap Nilai Perusahaan. *Pareso Jurnal*, *3*(2), 227–246.

Budiharjo, R. (2023). The Effect of Sales Growth, Financial Performance, and Firm Size on Firm Value: Using Indonesian Infrastructure Companies. *Asian Journal of Economics, Business and Accounting*, *23*(18), 9–15. https://doi.org/10.9734/ajeba/2023/v23i181053

Christy, E., & Sofie. (2023). PENGARUH PENGUNGKAPAN ENVIRONMENTAL, SOCIAL, DAN GOVERNANCE TERHADAP NILAI PERUSAHAAN. *Jurnal Ekonomi Trisakti*, *3*(2), 3899–3908. https://doi.org/10.25105/jet.v3i2.18233

Daniel, & Hermanto. (2024). Pengaruh Arus Kas, Pertumbuhan Perusahaan, Profitabilitas, Leverage, dan Likuiditas terhadap Nilai Perusahaan. *Jurnal Ilmiah Global Education*, *5*(3), 2137–2151. https://doi.org/10.55681/jige.v5i3.3204

Daromes, F. E., & Kawilarang, M. F. (2020). Peran Mediasi Pengungkapan Lingkungan Pada Pengaruh Kinerja Lingkungan Terhadap Nilai Perusahaan. *Jurnal Akuntansi*, *14*(1), 77–101. https://doi.org/10.25170/jak.v14i1.1263

Dewi, I. A. A. D. M., & Wirawati, N. G. P. (2024). Pengaruh Komite Audit, Leverage, dan Ukuran Perusahaan Terhadap Nilai Perusahaan. *E-Jurnal Ekonomi Dan Bisnis Universitas Udayana*, *13*(02), 271–281. www.idx.co.id

Dewi, P. P., & Narayana, I. P. E. (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

Dunakhir, S. (2023). Cash Flow Statements and Its Impact On Firms' Value. *Pinisi Business Administration Review*, *5*(1), 1–8. http://ojs.unm.ac.id/index.php/pbar/index

Endiana, I. D. M., & Suryandari, N. N. A. (2020). Persepektif Akuntansi Manajemen Lingkungan dan Pengungkapannya pada Nilai Perusahaan. *Jurnal Akuntansi Dan Auditing*, *17*(1), 80–89.

Firdarini, K. C., & Kunaidi. (2022). Pengaruh Arus Kas Operasi dan Laba Akuntansi Terhadap Return Saham. *Jurnal Riset Manajemen*, *9*(1), 28–36. https://doi.org/10.32477/jrm.v9i1.338

Goh, T. S. (2023). *MONOGRAF:FINANCIAL DISTRESS*. Indomedika Pustaka. www.indomediapustaka.com

Gz, A. A., & Lisiantara, G. A. (2022). Pengaruh profitabilitas, struktur modal, ukuran perusahaan, likuiditas dan kebijakan dividen terhadap nilai perusahaan. *Owner*, *6*(4), 3974–3987. https://doi.org/10.33395/owner.v6i4.1030

Handoko, J., & Santoso, V. (2023). Pengaruh Akuntansi Hijau dan Kinerja Lingkungan terhadap Kinerja Keuangan dengan Tanggung Jawab Sosial sebagai Pemediasi. *Nominal Barometer Riset Akuntansi Dan Manajemen*, *12*(1), 84–101. https://doi.org/10.21831/nominal.v12i1.56571

Hapsoro, D., & Falih, Z. N. (2020). The Effect of Firm Size, Profitability, and Liquidity on The Firm Value Moderated by Carbon Emission Disclosure. *Journal of Accounting and Investment*, *21*(2). https://doi.org/10.18196/jai.2102147

Hasibuan, A. W., Erwin, K., & Adnans, A. A. (2023). Effects of Implementation of Green Accounting and Good Corporate Governance on Firm Value, Moderated by Corporate Social Responsibility (A Study on the Mining Companies Listed on IDX in the Period 2017-2021). *International Journal of Research and Review*, *10*(3), 430–440. https://doi.org/10.52403/ijrr.20230350

Hazmi, R. A. Al, Ramadhan, A., & Firmansyah, A. (2024). Moderating Role of Profitability in The Association Between Green Accounting and Firm Value. *Journal of Governance Risk Management Compliance and Sustainability*, *4*(1), 45–59. https://doi.org/10.31098/jgrcs.v4i1.2166

Kelly, G. S., & Henny, D. (2023). Pengaruh Green Accounting dan Kinerja Lingkungan Terhadap Nilai Perusahaan dengan Profitabilitas sebagai Variabel Moderasi. *Jurnal Ekonomi Trisakti*, *3*(2), 3301–3310. https://doi.org/10.25105/jet.v3i2.18051

Khan, M. A., & Lone, T. A. (2023). Role of Corporate Social Responsibility (CSR) in the relationship between Green Accounting and Firm Value: Evidence from Indian Companies. In *Tuijin Jishu/Journal of Propulsion Technology* (Vol. 44, Issue 4).

Kusumaningrum, D. P., & Iswara, U. S. (2022). Pengaruh Profitabilitas, Leverage, dan Ukuran Perusahaan Terhadap Nilai Perusahaan. *Jurnal Ilmiah Akuntansi Dan Keuangan* , *1*(3), 295–312. https://doi.org/10.24034/jiaku.v1i3

Launtu, A. (2021). Impact of Cash Flow and Dividend Policy on Manufacturing Firm Value. *ATESTASI : Jurnal Ilmiah Akuntansi*, *4*(1), 105–111. https://doi.org/10.33096/atestasi.v4i1.724

Lestari, A. D., & Khomsiyah. (2023). Pengaruh Kinerja Lingkungan, Penerapan Green Accounting, dan Pengungkapan Sustainability Report Terhadap Nilai Perusahaan. *Jurnal Ekonomi Bisnis, Manajemen DanAkuntansi (Jebma)*, *3*(3), 527–539. https://www.globalreporting.org/

Luayyi, S., Nurvianasari, E., & Kusumaningarti, M. (2022). Pengaruh Arus Kas dan Rasio Hutang Terhadap Nilai Perusahaan dengan Kinerja Keuangan Sebagai Variabel Moderating. *Jurnal Ilmiah Akuntansi Dan Keuangan*, *1*(3), 213–230. https://doi.org/10.24034/jiaku.v1i3

Meilan, R., Ekmarinda, E. Y., & Hakim, I. (2023). Profitability as a Moderator in the Implementation of Environmental Management Accounting for Corporate Sustainability. *Wiga : Jurnal Penelitian Ilmu Ekonomi*, *13*(2), 307–315. https://doi.org/10.30741/wiga.v13i2.1113

Monica, S., & Sulfitri, V. (2023). Pengaruh Green Accounting, Corporate Social Responsibility, dan Financial Distress Terhadap Nilai Perusahaan Pada Perusahaan Manufaktur Sektor Consumer Goods yang Terdaftar Di BEI 2019-2021. *Jurnal Ekonomi Trisakti*, *3*(2), 3035–3048. https://doi.org/10.25105/jet.v3i2.17999

Natsir, K., & Yusbardini, Y. (2020). The Effect of Capital Structure and Firm Size on Firm Value Through Profitability as Intervening Variable. *Advances in Economics, Business and Management Research, 145*, 218–224.

Nugroho, W. C. (2023). Efek Mediasi Profitabilitas Pada Pengaruh Green Accounting Terhadap Nilai Perusahaan. *E-Jurnal Akuntansi*, *33*(3), 648. https://doi.org/10.24843/eja.2023.v33.i03.p05

Nurjanah, S., & Srimindarti, C. (2023). PENGARUH LIKUIDITAS, UKURAN PERUSAHAAN DAN PROFITABILITAS TERHADAP NILAI PERUSAHAAN. *CURRENT: Jurnal Kajian Akuntansi Dan Bisnis Terkini*, *4*(1), 62–71. https://doi.org/10.31258/current.4.1.62-71

Nursetya, R. P., & Nur Hidayati, L. (2021). How Does Firm Size and Capital Structure Affect Firm Value? *Journal of Management and Entrepreneurship Research*, *1*(2). https://doi.org/10.34001/jmer.2020.12.01.2-7

Octavianus, W., & Mala, C. M. F. (2020). Pengaruh Market Value Added, Residual Income, Earning Per Share, dan Arus Kas Operasi Terhadap Nilai Perusahaan. *JCA Ekonomi*, *1*(1), 24–36. www.idx.co.id

Odunayo, J., Folajimi, A. F., & Anaekenwa AGUGUOM, T. (2023). Environmental Accounting Practice and Firm Value of Quoted Oil and Gas Companies in Nigeria. *International Journal of Medical Science and Health Research*, *07*(04), 149–165. https://doi.org/10.51505/ijebmr.2023.7811

Panjaitan, I. V., & Supriyati, D. (2023). The Effect of Profitability and Leverage on Firm Value with Firm Size as a Moderating Variable. *Research of Finance and Banking*, *1*(1), 34–46. https://doi.org/10.58777/rfb.v1i1.34

Parnata, I. K., Elfarosa, K. V., Kencanawati, A. A. A. M., Suryadi, I. G. I., & Utthavi, W. H. (2023). Effect of Firm Size on Firm Value of Transportation and Logistics. *International Journal of Business, Economics & Management*, *6*(1), 35–40. https://doi.org/10.21744/ijbem.v6n1.2071

Pek, J., Wong, O., & Wong, A. C. M. (2018). How to address non-normality: A taxonomy of approaches, reviewed, and illustrated. In *Frontiers in Psychology* (Vol. 9, Issue NOV). Frontiers Media S.A. https://doi.org/10.3389/fpsyg.2018.02104

Radja, F. L., & Artini, L. G. S. (2020). The Effect Of Firm Size, Profitability and Leverage on Firm Value (Study on Manufacturing Companies Sector Consumer Goods Industry Listed in Indonesian Stock Exchange Period 2017-2019). *International Journal of Economics and Management Studies*, *7*(11), 18–24. https://doi.org/10.14445/23939125/ijems-v7i11p103

Reschiwati, R., Syahdina, A., & Handayani, S. (2020). Effect of liquidity, profitability, and size of companies on firm value. *Utopia y Praxis Latinoamericana*, *25*(Extra 6), 325–332. https://doi.org/10.5281/zenodo.3987632

Saputri, S. A., Maharani, B., & Prasetya, W. A. (2023). Pengaruh Kinerja Lingkungan, Pengungkapan Lingkungan, dan Biaya Lingkungan Terhadap Nilai Perusahaan. *Juara: Jurnal Riset Akuntansi*, *13*(1), 94–111.

Sari, N., & Gantino, R. (2022). Peran Akuntansi Manajemen Lingkungan dalam Memediasi Inovasi Ramah Lingkungan pada Nilai Perusahaan Terhadap Perusahaan di BEI. *Owner*, *6*(3), 1377–1389. https://doi.org/10.33395/owner.v6i3.974

Setyaningrum, A. I., & Mayangsari, S. (2022). Analisis Pengungkapan Akuntansi Lingkungan, Kinerja Lingkungan, dan Biaya Lingkungan Terhadap Nilai Perusahaan Pada Perusahaan Oil, Gas & Coal. *Jurnal Ekonomi Trisakti*, *2*(2), 1103–1114. https://doi.org/10.25105/jet.v2i2.14594

Sugiyarti, L., Pujiyanto, Sutandijo, Asmilia, N., & Hanah, S. (2023). Nilai Perusahaan: Arus Kas Operasional, Corporate Social Responsibility and Green Accounting. *Jurnal Ilmiah M-Progress*, *13*(2), 150–164.

Sulistiono, & Nur, B. (2024). Dampak Green Accounting, Kinerja Lingkungan, dan Tata Kelola Perusahaan Terhadap Nilai Perusahaan dengan Ukuran Perusahaan Sebagai Moderasi Pada Perusahaan Pertambangan yang Terdaftar di BEI Periode Tahun 2017-2022. *COSTING: Journal of Economic, Business, and Accounting*, *7*(5), 4853–4874. www.beritakalteng.com/2023/06/13/pem

Susilowati, D., & Meidiyustiani, R. (2023). Pengaruh Profitabilitas, Total Asset Turn Over (TATO), Arus Kas Operasi, Ukuran Perusahaan Terhadap Nilai Perusahaan. *Jurnal Akuntansi, Ekonomi Dan Manajemen Bisnis*, *3*(3), 296–303. https://doi.org/10.55606/jaemb.v3i3.2080

Tangngisalu, J. (2020). Effect of Cash Flow and Corporate Social Responsibility Disclosure on Firm Value. *Jurnal Ilmiah Akuntansi*, *3*(2), 142–149. https://doi.org/10.33096/atestasi.v3i2.571

Tanjung, F., Bukit, R. B., & Fachrudin, K. A. (2021). The Effect of Accounting Disclosure and Environmental Performance, Company Size and Corporate Social Responsibility Disclosure on the Value of Mining Companies Listed on the Indonesia Stock Exchange

2015-2019. *International Journal of Research and Review*, *8*(4), 149–160. https://doi.org/10.52403/ijrr.20210421

Toni, N., & Silvia. (2021). *Determinan Nilai Perusahaan*. Jakad Media Publishing.

Wu, H., & Li, J. (2023). The relationship between environmental disclosure and financial performance: mediating effect of economic development and information penetration. *Economic Research-Ekonomska Istrazivanja* , *36*(1), 116–142. https://doi.org/10.1080/1331677X.2022.2072355