

The Impact of Green Accounting, Company Size, and Company Value on Profitability Moderated by Firm Age

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Abstract

This study aims to examine the effect of Green Accounting, Total Assets, and Company Value on Profitability with Firm Age as a moderating variable in consumer non-cyclicals sector companies listed on the Indonesia Stock Exchange (IDX) for the 2021–2024 period. The study employs a quantitative approach with multiple linear regression analysis and Moderated Regression Analysis (MRA). Data were analyzed using SPSS with classical assumption tests, model feasibility tests, and hypothesis testing. The research results show that Green Accounting has a significant negative effect on profitability due to increased environmental costs. Total Assets and Company Value do not significantly affect profitability because profits are more determined by management effectiveness and market conditions. Firm Age is proven to moderate and weaken the effect of Green Accounting on profitability, but does not moderate the relationship between Total Assets and Company Value on profitability. Theoretically, this finding strengthens the perspective of legitimacy and agency theory that environmental compliance has short-term financial consequences. Practically, companies and regulators need to balance environmental commitment with more efficient business strategies through incentives and green innovation. This research provides a different perspective through the placement of firm age as a moderating variable to analyze the impact of green accounting as well as asset structure and company value on profitability within the scope of PROPER-rated companies in Indonesia.

INTRODUCTION

In recent years, the profitability performance of companies in Indonesia has shown a fluctuating trend. Asset growth and company value are often not directly proportional to profit increases due to high operational cost pressures and the influence of inflation that narrows the space for companies to gain profits. For stakeholders, the level of profit achievement acts as an instrument for assessing management accountability in carrying out organizational stewardship functions and strategic decision-making (Ekinanda, 2020). As the main representative of the consumer non-cyclicals sector, PT Indofood Sukses Makmur Tbk has recorded positive trends in asset growth and market value, but has not been able to guarantee profitability stability due to production cost pressures and exchange rate volatility. This phenomenon is complicated by the urgency of implementing green accounting which triggers a strategic dilemma—although it can strengthen legitimacy in the eyes of investors, financing ecological activities risks eroding the company's profit margins in the short term. The pressure for companies to shift from merely being profit-oriented to environmentally responsible practices has driven the development of environmental accounting (green accounting). This process enables companies to record and disclose environment-related activities. The benefits of its implementation include enhanced corporate image, reduced environmental risks, long-term cost savings, and potential profitability improvements. Additionally, given its status as a long-established entity, the level of company maturity is believed to play a crucial role in determining asset management effectiveness and strategic sharpness in optimizing profits. The misalignment between asset growth and profit levels

in Indonesia reflects significant operational burdens and environmental costs, which triggers the need to analyze profitability determinants through the integration of green accounting, company value, and company scale concepts, as well as involving the moderating role of firm age in that relational framework.

Profitability ratio is a financial metric used to evaluate management effectiveness in converting company resources into profits. This indicator provides an overview of the extent to which an entity is able to optimize its operations to generate maximum profits (Sukmawati & Saleh, 2023). The level of profitability indicates the company's capacity to convert its business activities into net profit in a particular reporting period, which simultaneously becomes a measure of financial performance success (Ekinanda, 2020). As a representation of financial performance effectiveness, the level of profitability acts as the main parameter underlying investor considerations in determining strategic investment steps. Stable profit capacity tends to be attractive to capital owners to invest their shares in the company. Environmental cost information is one of the determinant factors for the fluctuations in company profitability levels. Companies that can manage and report their environmental burdens effectively tend to have greater opportunities to improve their profitability performance (Zulfani et al., 2023).

In the modern era that is increasingly responsive to environmental issue dynamics, companies are not only required to create profits, but also have social and environmental responsibilities (Kumala & Priantilianingtiasari, 2024). One effort used by companies in maintaining environmental sustainability is through the implementation of green accounting. Green accounting is an accounting practice that integrates environmental aspects into the company's reporting and decision-making process (Sapulette et al., 2021). Accounting science plays an important role in disclosing environmental information which constitutes environmental costs incurred by business entities through environmental accounting mechanisms. Environmental accounting emerged in Europe in the 1970s, and its development has become increasingly rapid due to strict demands from non-governmental organizations and the escalation of public ecological awareness that provides significant pressure on corporations to integrate environmental management practices rather than merely running industrial activities for business profit (Sulistiawati, 2016). Companies that implement green accounting will be encouraged to manage their environmental performance in a more structured manner, so that the company is perceived as an organization committed to environmental sustainability principles and has the opportunity to obtain PROPER (Corporate Performance Rating Program in Environmental Management) certification issued by the Ministry of Environment and Forestry (KLHK) (Lestari & Restuningdiah, 2021). The breadth of green accounting disclosure is directly proportional to the level of investor interest in allocating their capital to the company, which ultimately encourages an increase in company profits, while a high level of profitability also increases public expectations and demands for companies to have a more significant impact on social and environmental aspects (Zulfani et al., 2023).

Company size can often be a factor that influences profitability. Company size, which is often proxied by total assets, reflects the scale of operational activities and the strength of resources managed. Large company capacity provides strategic advantages in the form of stronger financial resource availability and more dominant technology mastery as well as market access. Unlike small business units that tend to bear high production costs, large companies are able to optimize their resources to produce goods with lower expenditures, making them a determining factor for success in today's market. A crucial factor for business entities today is company size. This is because large-scale companies have far more efficient production cost structures compared to small companies (Ekinanda, 2020). Large category companies tend to have high confidence to conduct capital expansion through new share issuance to support production and distribution activities, which ultimately increases the number of shares outstanding in the market (Krisdiyanti, 2022). Large-scale companies tend to have a lower level of financial failure risk despite having high debt ratios. This is triggered by the large trust of creditors and investors in the entity's financial capacity, where

reputation and asset stability become guarantees of the company's ability to fulfill its long-term obligations (Krisdiyanti, 2022). Company size affects the ability to obtain external funding to support operations, as well as the level of profitability, because large-scale companies generally have competitive advantages, including market power in product pricing (Handayani & Widyawati, 2020).

Another factor that can influence profitability is company value. Company value describes the amount of price that acquiring parties are willing to pay if the company is transferred ownership, and is generally reflected through stock prices in the market (Febriani, 2020). Public assessment of a company is realized through their willingness to invest at a price deemed aligned with their belief in the company's value (Manajerial et al., 2012). The availability of investment opportunities functions as a transmission of positive signals regarding the entity's growth prospects in the future. This has the potential to increase company value in the eyes of the market, which is fundamentally aligned with the organization's strategic objectives to optimize shareholder wealth (Sukmawati & Saleh, 2023). Company value calculated based on total market value of shares functions as the main indicator of shareholder wealth, which is obtained from the result of multiplication between market value per share and the number of share instruments outstanding (Sukmawati & Saleh, 2023). An increasing stock price reflects increasing company value, which in turn is able to grow the confidence of stakeholders and the wider community towards the company (Febriani, 2020). When company value increases, management is encouraged to maintain and improve financial performance, thus impacting increased profitability.

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Firm age reflects the length of time a company has been operating since its establishment, where the more mature the company's age is generally considered to increase the level of stakeholder trust (Nikolas & Purwaningsih, 2022). Company age reflects the level of organizational experience and expertise, so that long-established companies generally have more established mechanisms to minimize risks and uncertainties that can disrupt business sustainability (Maria et al., 2020). Firm Age is needed in this research because it can affect the strength or weakness of the relationship between Green Accounting, Total Assets, and Company Value on Profitability. Companies that have been established longer are generally more mature in financial, environmental, and reputation management, so the application of green accounting as well as the utilization of assets and company value can be more effective in increasing profits. Conversely, in younger companies, limited experience and resources can make the influence of these variables on profitability weaker. Therefore, Firm Age is relevant to be used as a moderating variable to explain the difference in impact between young and old companies.

In this research, Agency Theory and Legitimacy Theory are needed to explain the relationship between Green Accounting, company size, company value, and profitability moderated by Firm Age. Agency relationships can be understood as an agreement in which the principal party gives a mandate to the agent to carry out certain tasks on their behalf, including delegating authority in decision-making (Company et al., 1976). Agency Theory explains that there

is potential for conflicts of interest between management and company owners, so the implementation of Green Accounting acts as a transparency mechanism to reduce information asymmetry and increase investor confidence, which impacts profitability. Legitimacy is a form of social recognition and validation that arises when an entity's actions are deemed to be aligned with the value system, norms, and principles of justice prevailing in society (Gibson, 2024). Therefore, Legitimacy Theory explains that companies implement Green Accounting as an effort to obtain and maintain social acceptance from the community and stakeholders, which can improve company image, increase market confidence, and support financial performance. In this case, Firm Age plays a role as a moderating factor because older companies generally have more mature governance and stronger reputation, so the influence of Green Accounting on profitability can differ compared to younger companies.

This research uses manufacturing companies in the consumer non-cyclicals sector listed on the Indonesia Stock Exchange as its object. The consumer non-cyclicals sector is chosen as the research object because it is a sector that produces basic necessities for society, thus having relatively stable demand, being more resistant to economic fluctuations, and having an important role in environmental and social sustainability. Indonesia's economic growth is largely supported by the performance of the corporate sector, especially the consumer non-cyclicals sector, which plays a strategic role because it produces goods and services for basic needs that become the main support for people's daily life activities (Salim, 2025). Consumer products are essential elements in human existence, considering basic needs such as food and other daily necessities must be met sustainably to support life (Feryanto et al., 2023).

Unlike previous research which generally only focuses on the relationship of green accounting to profitability, this study seeks to expand the study by including company size as an important factor and considering company value as a relevant variable in explaining company performance. The novelty of this study lies in the use of firm age as a moderating variable, which so far has rarely been applied, to provide a new perspective on the role of organizational maturity in mediating the impact of environmental policies on financial performance. To ensure relevance to the sustainability context in Indonesia, this research specifically limits the sample to companies listed in the PROPER (Corporate Performance Rating Program in Environmental Management) ranking of the Ministry of Environment and Forestry (KLHK) as an official indicator of ecological performance. Using the latest data for the 2021–2024 period and the latest literature references, this research is expected to provide empirical contributions to the development of environmental accounting and corporate governance, become a reference for stakeholders, academics, and practitioners, as well as provide considerations for decision makers in formulating standardization of ecological aspect reporting and optimization of supervisory functions by independent commissioners.

METHODS

This research is quantitative research with a causality approach, namely research that aims to test the causal relationship between independent variables (green accounting, total assets, and company value) on the dependent variable (financial performance), with firm age as a moderating variable. The data used is secondary data obtained from annual reports, sustainability reports, and PROPER data obtained through the official website of KLHK from consumer non-cyclicals sector manufacturing companies for the 2021-2024 period. Sample selection from this research uses purposive sampling with criteria including:

Table 1. Sample Selection

No	Kriteria	Total
1	Consumer non-cyclicals sector manufacturing companies listed on the IDX in 2021-2024	132

2	Companies that do not have PROPER ratings for the 2021-2024 period that can be obtained from annual financial reports or the official KLHK website	(106)
	Final number of samples	26
	Number of research samples 26 x 4	104

Source: Processed by author (2025)

The research includes several variables, namely dependent, independent, and moderating variables. Following are the variables used and their measurements:

Table 2. Sample Selection

No	Variable	Definition	Measurement
1.	Green Accounting	Green accounting or environmental accounting is an accounting system that records and reports accounts related to environmental costs, as well as a corporate financial reporting approach that must include data on the impacts of events or occurrences related to the environment.(May et al., 2023).	Green accounting assessment uses a color-based ranking system that is converted into five scores, namely Gold as the highest rank with a value of 5, Green 4, Blue 3, Red 2, and Black 1.
2.	Company Size	In this research, company size is proxied using total assets as an indicator that reflects the size of the company or commonly also referred to as firm size. Company size is an indicator that reflects the operational scale of a business entity, which is generally measured through the magnitude of total assets, sales level, profit earnings, and the company's tax contribution.(Handayani & Widyawati, 2020).	In this research, company size is proxied using total assets as an indicator that reflects the size of the company. Size: LN . Total Asset (Krisdiyanti, 2022)
3.	Company Value	Company value is a strategic achievement that reflects the level of credibility in the eyes of the public. This condition is the result of the organization's long-term operational consistency, which is formed cumulatively from when the company first operated until the current period. (Nendi Juhandi, 2019).	Tobin's Q = $\frac{MVS+D}{TA}$ Description: Tobin's Q = Company Value MVS = Market Value of Shares obtained from the multiplication of the number of shares outstanding by the share price D = Total Liabilities TA = Total Assets (Nuritami et al., 2024)
4.	Profitability	Profitability is one of the measures used to assess a company's performance. Profitability ratio is a financial metric used to evaluate management effectiveness in converting company	In this research, profitability is proxied using ROE as an indicator that describes the company's ability to generate profit.

		resources into profits. This indicator provides an overview of the extent to which an entity is able to optimize its operations to generate maximum profits(Sukmawati & Saleh, 2023). ROE describes the company's ability to generate profit from funds invested by investors(Tanjung et al., 2022).	ROE : $\frac{\text{net profit}}{\text{Total equity}} \times 100\%$ (Price, 2016)
5.	Firm Age	Firm age or company age refers to the length of time a company has been operating since it was first established. The level of company age maturity often becomes a trust parameter for stakeholders.(Nikolas & Purwaningsih, 2022)	Firm age is measured based on the length of time the company has been operating from the year of its establishment to the current research period. Firm Age = Research Year - Year of Establishment

Source: Processed by author (2025)

RESULTS AND DISCUSSION

Descriptive Analysis

Table 3: Descriptive Statistics Analysis

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
X1	104	2	5	3.07	.424
X2	104	14.887	31.023	20.036	5.023
X3	104	.14	156050584.50	5479110.5545	23440399.60097
Y	104	-.68	1.72	.1960	.33428
Z	104	16	119	48.38	25.872
Valid N (listwise)	104				

Source: Processed data, 2025

Based on **Table 3**, the results of descriptive statistical analysis show that the number of observations (N) in this study is **104** data for each variable studied. The dependent variable has a minimum value of **-0.68** and a maximum of **1.72**, with an average value of **0.1960** and a standard deviation of **0.33428**. This shows that the data on the dependent variable is relatively concentrated around its mean value..

Normality Test

Tabel 4: Normality Test Results

		Unstandardized Residual
N	Mean	104
Normal Parameters	Std. Deviation	.72893985
	Absolute	.106
	Positive	.084
	Negative	-.106
Tes Statistic		.106
Asymp. Sig. (2-tailed)		.203

Source: Processed data, 2025

Normality testing aims to examine whether a regression equation is normally distributed or not. One normality test that can be used is the Kolmogorov-Smirnov Normality Test. The requirement in the normality test is if the Asymp. Sig (2-tailed) value > 0.05 . Based on the results shown in **table 4**, the Asym. Sig. (2-tailed) value of each regression equation shows a value > 0.05 , which means the data is normally distributed.

Multicollinearity Test Results

Table 5: Multicollinearity Test Results

Model	Collinearity Statistics	
	Tolerance	VIF
(Constant)		
X1	.995	1.005
X2	.829	1.206
X3	.952	1.050
M	.860	1.163

Source: Processed data, 2025

Multicollinearity testing aims to examine whether correlation is found between independent variables in the regression equation. The requirements for the multicollinearity test can be seen in the VIF value and tolerance value, where if the VIF value < 10.00 and the tolerance value > 0.100 , then there is no multicollinearity. Based on the results shown in **table 5**, the multicollinearity test for each regression equation meets these criteria. Thus, it can be concluded that multicollinearity does not occur. Based on the table, the test results show that all independent variables have tolerance values above 0.1 and VIF values below 10. It can be concluded that the data meets the multicollinearity test.

Heteroscedasticity Test

Table 6: Heteroscedasticity Test Results

Model	Unstandardize		Standardized		
	Coefficients		Coefficients		
	B	Std. Error	Beta	T	Sig
(Constant)	.580	1.061		.546	.568
X1	.117	.088	.135	1.340	.183
X2	.025	.259	.011	.097	.923
X3	-3.423E-9	.000	-.135	-1.318	.191
Z	-.135	.115	-.127	-1.173	.244

Source: Processed data, 2025

Heteroscedasticity testing aims to examine whether there is inequality of variance and residuals between one observation and another in the regression equation. In this study, the heteroscedasticity test was conducted using the Glejser test. Based on **table 6**, the test results show a significance value > 0.05 . This data shows that each regression equation has a significance value > 0.05 . Therefore, it can be concluded that heteroscedasticity does not occur.

Autocorrelation Test

Table 7: Autocorrelation Test Results before Transformation

Model	R	R square	AAdjusted R Square	Std. Error of the Estimate	Durbin-Waston
1	.704a	.469	.475	.74429	1.158

Sumber : Data diolah, 2025

Table 8: Autocorrelation Test Results after Transformation

Model	R	R square	Adjusted R Square	Std. Error of the Estimate	Durbin-Waston
1	.460a	.212	.203	.628589334	2.0522

Source: Processed data, 2025

The autocorrelation test in this study uses the Durbin-Watson (DW test) testing. After the DW test results are known, a comparison is made between the DW table and DW test. Data is accepted and free from autocorrelation if dU (upper limit) $< DW < 4-dU$. This research shows the DW table for $n = 104$ and $k = 4$ obtained an upper limit (dU) of 1.7610 and $4-dU$ of 2.239. Based on the table above, the DW value = 1.158 is below the upper limit dU (for $n=104, k=4$). This means the residuals show positive autocorrelation, so the assumption of no autocorrelation has not been met. To correct this, transformation was performed (lag approach on the dependent variable). After transformation, the DW value = 2.0522 is between the dU limit and $4-dU$, so it can be concluded that there is no autocorrelation. Thus, the assumption of no autocorrelation is fulfilled in the transformed model.

Hypothesis Test

Coefficient of Determination Test R^2

Table 9: Results of Coefficient of Determination Test R^2

Model	R	R Square	Adjusted R square	Std Error of the Estimate
1	.704	.496	.475	.74429

Source: Processed data, 2025

This testing aims to explain the extent of the independent variables' ability to explain the dependent variable in the regression model that has been created. The following are the results of the coefficient of determination test. Based on the table, the Adjusted R^2 value = 0.475. This means that the variation (y) in the sample can be explained by 47.5% by the combination of green accounting ($X1$), total assets ($X2$), company value ($X3$), and the $X \times Z$ interaction as a moderating variable. The remaining 52.5% of profitability variation is influenced by other factors not included in this research model.

F Test

Through the Anova Significance Test (F Statistical Test). This testing uses the criteria that if the probability value < 0.05 , then the F test is significant, meaning this model test meets the fit criteria and is suitable to be used in the research. Whereas if the probability value > 0.05 , then the F test is not significant, meaning this model test does not meet the fit criteria and is not suitable to be used in the research. The F statistical test results are presented in the following table.

Table 10: F Test Result

Model		Sum of Squares	Df	Mean Square	F	Sig
1	Regression	55,789	7	7.970	15.238	.000
	Residual	47,594	91	.523		
Total		103,384	98			

Source: Processed data, 2025

The F test results show an F value = 15.238 with Sig. = 0.000 $< \alpha = 0.05$. This means that the regression model containing green accounting ($X1$), total assets ($X2$), company value ($X3$), and

the X×Z interaction as a moderating variable is simultaneously significant in explaining profitability variation. Thus, the model meets the fit criteria and can be used for further hypothesis testing.

MULTIPLE LINEAR REGRESSION TEST

Table 11: Multiple Linear Regression Test Results

Coefficients ^a						
		Unstandardized			Standardized	
		Coefficients		Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.361	1.171		1.162	.248
	X1_TRANS	-1.048	.133	-.626	-7.855	.000
	X2LN	-.095	.367	-.021	-.259	.796
	X3_TRANS	2.703E-9	.000	.056	.685	.495

a. Dependent Variable: LN_Y

Source: Processed data, 2025

Based on the regression test results from Table 11 above, the significance value of the Green Accounting variable (X1) is $0.000 < 0.05$, which indicates that Green Accounting has a significant effect on company profitability. The regression coefficient value (B) of -1.048 shows that Green Accounting has a negative effect on profitability. This means that the higher the implementation of Green Accounting, the more company profitability tends to decrease. Meanwhile, the Total Assets variable (X2) has a significance value of $0.796 > 0.05$ with a negative regression coefficient, which indicates that Total Assets do not have a significant effect on profitability because an increase in assets is not necessarily followed by an increase in profit. Furthermore, Company Value (X3) shows a significance value of $0.495 > 0.05$ with a positive regression coefficient, which means Company Value does not have a significant effect on profitability, because company value more reflects investor expectations compared to actual profit in the current period.

MRA TEST

Table 12: MRA Test Result

Coefficients ^a						
		Unstandardized			Standardized	
		Coefficients		Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	-20.036	9.740		-2.057	.043
	X1_TRANS	1.146	.895	.684	1.280	.204
	X2LN	4.105	3.118	.907	1.317	.191
	X3_TRANS	-1.361E-1	.000	-2.801	-.695	.489
	LN_Z	5.110	2.595	2.505	1.969	.052
	X1M	-.553	.230	-1.486	-2.408	.018
	X2M	-.961	.847	-1.316	-1.137	.260
	X3M	3.840E-8	.000	2.899	.719	.474

a. Dependent Variable: LN_Y

Source: Processed data, 2025

Based on the MRA test results in **table 12** above, the moderation test results show that Firm Age is able to moderate the effect of Green Accounting on profitability with a significance value of $0.018 < 0.05$, but with a negative direction, meaning that the older the company, the weaker the impact of Green Accounting on profitability. Conversely, Firm Age does not moderate the effect of Total Assets on profitability because its significance value is $0.260 > 0.05$, which indicates that company age does not determine whether assets can increase profit, but rather the effectiveness of their management. Similarly, Firm Age also does not moderate the relationship between Company Value and profitability (sig. $0.474 > 0.05$), because changes in company value are more influenced by market conditions and investor expectations compared to the company's age itself.

DISCUSSION

The Effect of Green Accounting on Profitability

The research results show that Green Accounting has a significant effect on profitability with a negative direction. This indicates that the increase in Green Accounting implementation tends to suppress company profitability in the short term due to the high environmental costs that must be borne by the company. This also suggests that the intensity of environmental commitment through PROPER ratings tends to reduce short-term profit acquisition. In Table 11, the Green Accounting variable has a significance value of $0.000 < 0.05$ with a negative regression coefficient of -1.048 , which means Green Accounting has a significant effect but a negative impact on profitability. This finding indicates that the better the implementation of Green Accounting as reflected in the improvement of PROPER ratings, the more it tends to decrease company profitability in the short term. This is caused by increasing environmental costs that must be borne by the company, such as waste treatment costs, investment in environmentally friendly technology, environmental audits, and compliance with KLHK regulations. This result is consistent with research by Rahman (2023), May et al. (2023), and Nuritami et al. (2024) who found that green accounting implementation often suppresses short-term profits, particularly in the manufacturing sector which is capital-intensive in production. From the perspective of legitimacy theory, this finding shows that companies are willing to sacrifice some profit to obtain social legitimacy and avoid environmental sanctions, while according to stakeholder theory, companies prioritize the interests of government, society, and the environment over short-term profit maximization. Thus, H1 is accepted because Green Accounting has a significant effect on profitability, albeit with a negative direction.

The Effect of Total Assets on Profitability

The analysis results show that company size does not significantly correlate with financial performance, indicating that ownership of large amounts of assets is not always directly proportional to the company's ability to generate profit. The test results in Table 11 also show that Total Assets have a significance value of $0.796 > 0.05$ with a negative coefficient of -0.095 , which means Total Assets do not have a significant effect on profitability. This finding indicates that the size of company assets does not automatically increase profit, because companies with large assets may experience operational inefficiency, high fixed costs, and agency problems between management and shareholders. This result is consistent with research by Handayani & Widyawati (2020) and Ekinanda (2020) who found that company size does not always correlate with profitability. From the perspective of agency theory, the larger the company, the more complex asset management becomes and the higher the potential for managerial inefficiency, which can actually suppress profitability. Therefore, H2 is rejected.

The Effect of Company Value on Profitability

The results of this research reveal that company value does not have a significant effect on profitability, which indicates a dichotomy between market value (Tobin's Q) as a representation of investor expectations for long-term prospects and the company's actual profit performance in the current period. Furthermore, the regression results in Table 11 show that Company Value has a significance value of $0.495 > 0.05$ with a very small positive coefficient, so it can be concluded that Company Value does not have a significant effect on profitability. This indicates that Tobin's Q more reflects market expectations and investor perceptions of the company's future prospects, not actual profit in the current period. Company value can increase due to market sentiment, dividend policy, or industry conditions, even though profitability does not increase significantly. This finding is consistent with research by Sukmawati & Saleh (2023) and Agus & Fadli (2022) which shows that company value does not always move in the same direction as profitability. Thus, H3 is rejected.

The Role of *Firm Age* in the Effect of Green Accounting on Profitability

The moderation test results using MRA in Table 12 show that the interaction between Green Accounting and Firm Age (X1M) has a significance value of $0.018 < 0.05$ with a negative coefficient of -0.553 , which means Firm Age significantly moderates and weakens the effect of Green Accounting on profitability. This finding indicates that in older companies, the negative impact of Green Accounting on profitability becomes stronger. This occurs because older companies generally already have a large environmental cost structure and are under stricter regulatory supervision, so that additional green investments no longer provide meaningful reputational benefits for company profits (diminishing return effect). Conversely, in younger companies, the implementation of Green Accounting still provides relatively greater reputational benefits, so its negative impact on profitability is not as strong. This finding is consistent with research by Nikolas & Purwaningsih (2022) and Afifah et al. (2024) which confirms that company age affects the effectiveness of environmental policies on financial performance. Therefore, H4 is accepted.

The Role of Firm Age in the Effect of Total Assets on Profitability

How that the moderation test results indicate Firm Age does not moderate the relationship between Total Assets and profitability. The interaction between Total Assets and Firm Age (X2M) has a significance value of $0.260 (> 0.05)$, which means company age does not determine whether assets can increase profit. This finding indicates that the main factor affecting profitability is not the length of time the company has been established, but rather the effectiveness of asset management by management. Thus, the fifth hypothesis (H5) is rejected.

The Role of Firm Age in the Effect of Company Value on Profitability

In addition, Firm Age also does not moderate the relationship between Company Value and profitability. The interaction between Company Value and Firm Age (X3M) has a significance value of $0.474 (> 0.05)$, which shows that changes in company value are more influenced by market conditions and investor expectations compared to the company's age itself. Both young and old companies still face the same market volatility in affecting Tobin's Q, so Firm Age does not play a role as a moderating variable in this relationship. Based on these findings, the sixth hypothesis (H6) is rejected.

CONCLUSION

This study aims to examine the effect of Green Accounting, Total Assets, and Company Value on Profitability with Firm Age as a moderating variable in consumer non-cyclicals sector companies listed on the IDX and having PROPER ratings for the 2021–2024 period. Based on

the results of regression analysis and Moderated Regression Analysis (MRA), several main findings were obtained. The research model is declared fit because simultaneously the variables Green Accounting, Total Assets, Company Value, and interaction with Firm Age are able to explain variations in profitability significantly. Green Accounting is proven to have a significant negative effect on profitability, showing that increased environmental compliance tends to suppress short-term profits due to high environmental costs. Total Assets do not have a significant effect on profitability because the size of assets does not guarantee increased profits without effective management. Company Value also does not have a significant effect on profitability because it more reflects market expectations compared to actual profit performance. Firm Age is proven to significantly moderate and weaken the effect of Green Accounting on profitability, especially in older companies, but does not moderate the relationship between Total Assets and Company Value on profitability. This finding indicates a trade-off between environmental sustainability commitment and short-term financial performance, so companies need to manage green investments more strategically to align with profitability objectives.

Companies, especially PROPER-rated consumer non-cyclicals sector companies, are advised to integrate Green Accounting with business strategies so that environmental investments do not merely become cost burdens, but also create economic value through energy efficiency, green technology innovation, and circular economy. Long-established companies need to streamline their environmental cost structure and improve asset management effectiveness because large assets do not automatically increase profits. The government and KLHK are advised to provide incentives or policy support for companies that invest in environmentally friendly technology so that environmental compliance costs are more balanced. Investors are advised not only to focus on market-based company value, but also to consider environmental performance and the company's long-term sustainability strategy.

For future research, it is recommended that the research model be expanded by including other variables that potentially affect profitability, such as leverage, liquidity, environmental costs, carbon emission intensity, environmental performance, or ESG disclosure levels to make research results more comprehensive. Future researchers are also advised to use more advanced analytical methods such as panel data, Fixed Effect Model, Random Effect Model, or Structural Equation Modeling (SEM) to capture more complex relationships between variables. In addition, the research object can be expanded to other sectors such as mining, energy, chemicals, or heavy manufacturing so that findings are more generalizable and can be compared across industries. Future research also needs to explicitly differentiate between short-term and long-term impacts of Green Accounting implementation on profitability, considering that environmental investments tend to suppress profits in the short term but have the potential to provide economic and reputational benefits in the long term.

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