

THE EFFECT OF GREEN FINANCE AND CAPITAL STRUCTURE ON FIRM VALUE WITH PROFITABILITY AS A MODERATING VARIABLE

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Abstract

Tujuan penelitian ini adalah untuk menentukan apakah penerapan prinsip-prinsip keberlanjutan oleh perusahaan perbankan yang terdaftar di BEI memiliki dampak terhadap nilai perusahaan. Profitabilitas digunakan sebagai variabel moderator, sedangkan *green finance* dan struktur modal digunakan sebagai variabel independen. Dari tahun 2020 hingga 2024, total 215 observasi dari 43 perusahaan keuangan dimasukkan dalam analisis kuantitatif ini. Sampel dipilih menggunakan metode *purposive sampling*, dan data diperoleh dari laporan keberlanjutan dan laporan tahunan perusahaan. SPSS 25 digunakan untuk menganalisis data. Hasil penelitian menunjukkan bahwa struktur modal memiliki dampak yang signifikan terhadap nilai perusahaan, sedangkan *Green finance* tidak memiliki pengaruh yang dapat diidentifikasi. Selain itu, hubungan antara keuangan hijau dan struktur modal terhadap nilai perusahaan diperkuat oleh profitabilitas, yang berfungsi sebagai variabel moderator.

Kata Kunci: Nilai Perusahaan, *Green Finance*, Struktur Modal, Profitabilitas.

Abstract

The purpose of this study is to determine whether the application of sustainability principles by banking companies listed on the Indonesia Stock Exchange has an impact on company value. Profitability is used as a moderating variable, while green finance and capital structure are used as independent variables. From 2020 to 2024, a total of 215 observations from 43 financial companies were included in this quantitative analysis. The sample was selected using purposive sampling, and data were obtained from the companies' sustainability reports and annual reports. SPSS 25 was used to analyze the data. The results show that capital structure has a significant impact on company value, while green finance has no identifiable effect. Furthermore, the relationship between green finance and capital structure on company value is strengthened by profitability, which functions as a moderator variable.

Keywords: *Green Finance, Capital Structure, Corporate Value, Profitability.*

A. INTRODUCTION

Global sustainability faces pressure from aspect politics, economics, and the environment . In Indonesia, the acceleration change climate, decline health, shrinkage land , decreasing production food , as well as increasing disaster natural make things worse risk scarcity source power (Ines, 2025). In the context of this company play a role important through implementation practice sustainability and disclosure information related, which is not only pressing impact environment negative but also gives mark plus in the form of transparency cost environment for holder shares (Romadona, 2022).

Financing sustainable arranged through POJK Number 51/POJK.03/2017 for push role active sector service finance in development sustainable (OJK, 2018). Meanwhile that, value company become indicator main in evaluate performance and prospects business something entity. Investor confidence in ability management in produce profit, manage risks, and maintain sustainability reflected from improvement mark company (Rahmanisa, 2023). Indonesian banking, value company reflect management source Power at a time interesting investor interest. Decline price share several large banks on the IDX, even though asset increased, indicating that reputation, compliance regulations, and sustainability strategies become attention main investors (OJK, 2021).

Of several researchers who research context This found that existence inconsistency Results. Various studies on *green finance* show varying results. Several studies, such as Alviansyah (2023), Rahmanisa (2023), and Harliani (2024), found that companies that perform better Good in matter environment, *green finance* can increase mark companies and shareholders its shares. However, Hasanah and Hariyono (2022) reported no significant impact on financial performance, such as ROA, while Yu et al. (2023) showed a positive effect through increased access to capital and information dissemination.

Temporary that , the general capital structure proven influence mark company in a way positive. Research Rhamada (2021), Noviera (2024), and Setiawan (2021) show influence

significant, whereas Wicaksono (2020) and Oktaviani et al. (2019) found impact that is not significant. In addition, profitability as variables moderation Still A little researched, but Purbaningsih (2024) and Maria (2022) stated that profitability influenced by value company , so that can strengthen or weaken influence *green finance* and capital structure towards mark company.

Study This aim for analyze influence *green finance* and capital structure against mark company with profitability as moderator variables in the company banking listed on the B EI For 2020–2024 period , as well as For give reference for study more further and assist investors in taking decision. Study This using *the Trade-Off* Theory, which explains connection between capital structure and value company with balance risk and reward results in use of debt as source financing (Jensen & Meckling, 1976), as well as Stakeholder Theory Interests, which highlight importance increase performance financial, social and environmental For create mark for all stakeholders interests (Damas et al., 2021).

1. Theoretical review

Company values

Company value reflects the level of public trust in a company since its inception. This value also reflects how investors evaluate the company, particularly in relation to its share price (Gunardi *et al.*, 2022; Putri (2024).

$$PBV = \frac{\text{Stock price}}{\text{Book Value}} \quad (\text{Gunardi, 2022})$$

Green Finance

Green finance is instrument designed finances for support growth economy without ignore sustainability environment. This strategy emphasize on reduction waste, pollution, emissions carbon, as well as improvement efficiency energy and utilization source power (Rahmanisa, 2023;

IDRBT, 2013). The assessment using 6 *Green Coin Rating* (GCR) indicators, covering adoption technology low carbon, achievement award sustainability, implementation building green, practice recycling repeat, reduce usage paper, and investment in activities that maintain sustainability nature, with system score (1 for fulfilled , 0 for No).

Capital Structure

Source financing term long company called as capital structure , and terms This covers term time more from One year (Arifin, 2018:69).

$$DER = \frac{\text{Total Debt}}{\text{Total Equity}} \quad (\text{Arifin, 2018:69}).$$

Profitability

Kasmir (2021), is ratio that shows ability something company For produce profit in period time certain . In addition profitability evaluate how much Good management in supervise operational daily

$$ROA = \frac{\text{Net Profit}}{\text{Total Assets}} \quad (\text{Kashmir, 2021})$$

2. Conceptual Framework

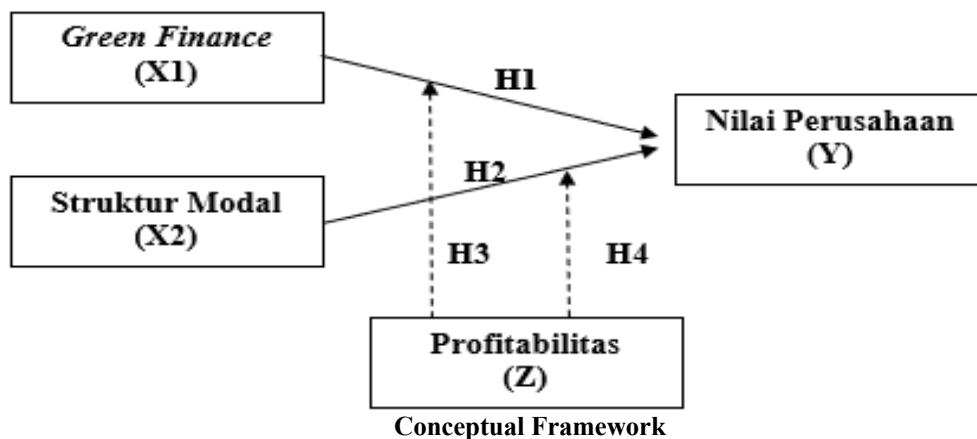


Figure 1.

Sources: Ifadhoh & Yuliana (2024), Astuti & Oktaviani (2024), Purbaningsih (2024)

Based on framework conceptual on so hypothesis in research This is as following :

H₁ : *Green Finance* influential to mark company

H₂ : Capital structure has an effect to mark company

H₃ : Profitability capable moderate influence *green finance* to mark company

H₄ : Profitability capable moderate influence capital structure against mark company

B. METHOD

Study This done with utilise approach quantitative method using secondary data . Data is taken from the official website of the Indonesia Stock Exchange www.idx.co.id. Population study This is all banking companies listed on the IDX. The technique of taking samples in research is method *purposive sampling* resulting in 43 companies registered banking for 5 periods (2020-2025) with a total sample of 215 samples . There are 3 types variables in research This that is variables free (X) *green finance* projected by green coin rating (GCR) and capital structure , variable bound (Y) is Company value (PBV), and variables moderation (Z) namely profitability (ROA).

C. RESULTS AND DISCUSSION

Classical Assumption Test

Normality Test

Normality Test Results

N	Unstandardized Residual
Asymp . Sig. (2- tailed) ^c	.072

Source : Secondary Data Processed (2025)

Ghozali (2021) normality test done with *the Kolmogorov-Smirnov* test . level significant used is 0.05 data is said to be normal if number significant > 0.05 . Based on results testing from mark Asymp . Sig. (2-tailed) is 0.072. This is show that $0.072 > 0.05$ then can concluded that the data normally distributed.

Multicollinearity Test

Table 2. Multicollinearity Test Results

Coefficients ^a				
Model	T	Sig.	Collinearity Statistics	
			Tolerance	VIF
Green Finance	-.197	.844	.958	1,044
Capital Structure	2,426	.017	.990	1,010
Profitability	.872	.385	.951	1,051

Source : Secondary Data Processed (2025)

From the results of the Multicollinearity test It is known that the VIF value for all independent variables is not more than 10.00 from the *tolerance value* of all independent variables which is also close to 0.10. Based on these results, it can be said that all dependent variables consisting of *Green Finance* and capital structure and profitability do not show any symptoms of multicollinearity.

Heteroscedasticity Test

Table 3. Heteroscedasticity Test Results

Coefficients ^a		
Model	T	Sig.
Green Finance	-0.390	0.697
Capital Structure	1,043	0.299
Profitability	0.613	0.541

Source : Secondary Data Processed (2025)

Based on the output above, the significance value (Sig) of the green finance variable, proxied by GCR, is 0.697. Meanwhile, the Sig value of the capital structure, proxied by DER, is 0.299, and profitability, proxied by ROA, is 0.541. From variables X, Y, and Z, the significance value is greater than 0.05 . in accordance with base taking decision in the *Glejser* test , it can concluded that No happen symptom heteroscedasticity in regression models .

Autocorrelation Test

Table 4. Autocorrelation Test Results

Model Summary ^b					
Model	R	R Square	Adjusted R Square	Standard Error of the Estimate	Durbin-Watson
1	.216 ^a	.047	.025	.28848	.998
a. Predictors: (Constant), profitability, capital structure, green finance					
b. Dependent Variable: Company value					

Source : Secondary Data Processed (2025)

The autocorrelation test using the *Durbin-Watson test* (DW test) produces a *Durbin Watson* (dw) value of 0.998. This value will be compared with the table value using sig. 0.05. The number of samples (n) is 43 and the independent variable (k) is 2, so the t table can get a du value of 1.6091 and a dl value of 1.4151. It can be concluded that the *Durbin Watson value* is included in the category $0 < dw < dl$, namely $0 < 0.998 < 1.4151$. then there is no positive autocorrelation (H_0 is rejected).

Multiple Linear Regression Analysis

Table 5. Multiple Linear Regression Analysis Test

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.621	.117		5.299	<.001
	<i>green finance</i>	-.031	.156	-.017	-.197	.844
	Struktur modal	.025	.010	.209	2.426	.017
	Profitabilitas	.023	.027	.077	.872	.385

Source : Secondary Data Processed (2025)

So that from results regression the can made linear equation as following :

$$Y = 0.621 + (-0.031) + 0.025 + 0.023 + e$$

- 1) Constant (α) is 0.621 It means If all variables independent considered constant or worth zero , then mark company estimated as big as 0.621 .
- 2) *Green Finance* (X1) has a negative value of -0.031, which means that every one unit increase in *green finance* tends to reduce the company's value, but this effect is not statistically significant.
- 3) Capital Structure (X2) has a positive coefficient value of 0.025, which indicates that every increase in capital structure by one unit will increase the company's value, and this effect is significant at the 5% level.
- 4) Profitability (Z) Profitability also has a positive effect on company value with a coefficient value of 0.023, but this effect is not significant.

Hypothesis Testing

Partial test (t-test)

Partial Test Results (t-Test)

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	
	B	Std. Error	Beta			
1	(Constant)	.621	.117		5.299	<,001
	<i>green finance</i>	-.031	.156	-.017	-.197	.844
	Struktur modal	.025	.010	.209	2.426	.017

a. Dependent Variable: nilai perusahaan

Source : Secondary Data Processed (2025)

Based on results data analysis , can concluded as following :

- 1) ***Green finance* variable (X1)**, $t_{count} > t_{table}$ that is $-0.197 < t_{table} 1.97838$ with significance $0.844 > 0.05$. H_0 is accepted, meaning there is no influence between the independent and dependent variables. Partially, *green finance* (X1) does not have a significant influence on company value. Thus, **H1 is rejected** .
- 2) **Capital structure variable (X2)**, $t_{count} > t_{table} 2.426 > t_{table} 1.97838$ with significance 0.017

< 0.05. H0 is rejected, meaning there is an influence between the independent and dependent variables. Capital structure (X2) has a significant influence on company value (Y). **H2 is accepted.**

Coefficient of Determination (R²) Test

Table 7. Test of Coefficient of Determination (R²)

Model Summary ^b					
Model	R	R Square	Adjusted R Square	Standard Error of the Estimate	Durbin-Watson
1	.367 ^a	.135	.101	.27690	1,118
a. Predictors: (Constant), X2Z, green finance, capital structure , X1Z, profitability					
b. Dependent Variable: Company value					

Source : Secondary Data Processed (2025)

The adjusted R-square value was 0.135, indicating that *green finance* , capital structure, and profitability had a 13.5% impact on company value. Meanwhile, 86.5% was influenced by other variables not included in this study.

Uji Moderated Regression Analysis (MRA)

Tabel 8. Uji Moderated Regression Analysis (MRA)

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.016	.159		6.401	<,001
	green finance	-.472	.206	-.266	-2.297	.023
	struktur modal	.002	.012	.018	.179	.858
	Profitability	-.520	.154	-1,721	-3,374	<.001
	X1Z	.534	.168	1,284	3,181	.002
	X2Z	.039	.012	.714	3,180	.002

Source : Secondary Data Processing (2025)

$$\begin{aligned}
 Y &= a + \beta_1 X_1 + \beta_2 X_2 + \beta_3 Z + \beta_4 (X_1 \times Z) + \beta_5 (X_2 \times Z) + \varepsilon \\
 &= 1.016 + (-0.472) + 0.002 + (-0.520) + 0.534 + 0.039 + \varepsilon
 \end{aligned}$$

Based on results data analysis , can concluded as following :

- 1) The interaction variable X1Z (*green finance* × moderating variable) has a coefficient of 0.534 with a t value of 3.181 and a significance of $p = 0.002$, which is < 0.05 , so the conclusion is that the profitability variable is able to moderate the influence of the *green finance variable* on company value. **H3 is accepted.**
- 2) The interaction variable X2Z (capital structure × moderating variable) has a coefficient of 0.039 with a t value of 3.180 and a significance of $p = 0.002$. which is < 0.05 , then the conclusion is that the profitability variable is able to moderate the influence of the capital structure variable on company value. **H4 is accepted.**

DISCUSSION

1. *Green Finance* Has No Influence and Is Not Significant on Company Value.

Based on t-test results with mark significance > 0.05 , can concluded that Green Finance does not influential significant to mark company . Regression coefficient of -0.197 indicates existence connection negative , meaning increasing Green Finance instead tend lower mark company . Findings This No in line with Stakeholder Theory which emphasizes importance consider factor environment in corporate strategy . Research results This support findings Alfikri et al. (2024), Baharudin et al. (2023), and Salsabila et al. (2022) who also stated that Green Finance is not influential to mark company .

2. Capital Structure Influential and Significant to Company Value.

The t-test shows mark significance < 0.05 with coefficient positive of 2.426, which means capital structure influences significant to improvement mark company . This is supports the Trade Off Theory (TOT) which emphasizes balance between debt and equity . Findings This in line with study Widyawati (2024), Pertiwi (2018), Wulandari (2018), and Tunnisa (2023), who concluded that capital structure has influence significant to mark company , and

reinforced by Delariani (2020) who found connection close between capital structure and value business .

3. Profitability is able to moderate the influence of *green finance variables* on company value,

The MRA test shows that profitability serves as a significant moderator in the relationship between green finance and firm value, indicated by an interaction significance value of 0.002 (<0.005) with a positive coefficient of 0.534. This result is in accordance with *Stakeholder Theory* , which states that in addition to stakeholders, other factors, namely the environment, must be considered in strategic decision-making. The results of this analysis are supported by previous research by Elisabeth & Maria (2022), Yuliani & Prijanto (2022) in Kelly (2023), Niandari (2023), Hafidz & Deviyanti (2022), and Hanifah & Ismawati (2022) which stated that *green accounting*, which is part of *green finance*, influences firm value with profitability as a moderating variable.

4. Profitability is able to moderate the influence of capital structure variables on company value.

The MRA test shows that profitability serves as a significant moderator in the relationship between capital structure and firm value, indicated by an interaction significance value of 0.002 (<0.005) with a positive coefficient of 0.039. This result includes pure moderation because profitability strengthens the influence of capital structure even though it does not always have a direct impact on firm value (Ghozali, 2021). This finding aligns with research by Bahriah *et al.* (2022), Prakoso *et al.* (2022), and Herlambang (2021), which states that profitability, through ROA, can strengthen the relationship between capital structure and firm value. This means that the impact of profitability on firm value is not directly related to profitability. capital structure against mark company can varies depending on how much tall or low level its profitability.

D. CONCLUSION

On the results research , can concluded that study carried out at banking companies as many as 43 companies banking and the total sample is 215 samples for 5 years 2020-2024 period . Research This show results that green finance is not influential significant to mark company , so that improvement mark No only depends on practice finance green but also on synergy with stakeholders interests , policies sustainable , and consistent regulation . In contrast , the capital structure is measured through influential DER significant to mark company , confirmed importance efficient capital management . Profitability is measured with proven ROA moderate Good the relationship between green finance and capital structure against mark company , where the level of greater profitability tall allows management source greater power and capital structure Good so that impact positive on improvement mark company.

E. SUGGESTION

Study confirm that implementation finance sustainable , healthy capital structure , and optimal profitability are able to increase mark company as well as give prospects positive for investors. In the future , research can expanded to other sectors and periods more long with addition variables related to the results more comprehensive.

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