The Influence of Green Investment and CSR on Firm Value of Banking Sector

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Abstract: *The primary objective of this study is to empirically investigate how Green Investment and CSR initiatives influence the firm value of the Indonesian banking sector over the 2020–2024 timeframe. This study was prompted by the increasing attention to sustainability issues and the strengthening of regulatory pressure from the Financial Services Authority (OJK) through POJK No. 51/POJK.03/2017. This regulation mandates that financial institutions adopt sustainable financing frameworks. Adopting a quantitative methodology, this research employs multiple linear regression to examine the interplay between variables. Through purposive sampling, 35 banking firms were identified based on predetermined benchmarks. Green Investment is quantified by the proportion of environmental spending relative to total assets, whereas CSR is assessed via the Corporate Social Responsibility Disclosure Index (CSRDI) aligned with GRI standards. The findings indicate that Green Investment significantly and favorably influences firm value, indicating that environmental initiatives increase investor confidence and market perception. Similarly, CSR was found to exert a significant and favorable impact, indicating that broader social responsibility disclosure contributes to increased company value. Overall, this study highlights the strategic importance of sustainability initiatives in strengthening long-term company value and supporting decision-making for management, investors, and regulators.*

Key Words: Green Investment; CSR; Firm Value.

Introduction

Climate change, environmental degradation, and increasing demands for sustainable business practices have propelled a comprehensive restructuring of global business frameworks. Businesses are no longer exclusively focused on achieving short-term financial gains, but are also required to consider the socio-environmental ramificationsof their operations (Samino et al., 2025). In this context, the application of sustainability principles has become an important strategy for maintaining legitimacy, enhancing reputation, and ensuring business continuity amid increasing global risk complexity (Irawan et al., 2023).

In Indonesia, the banking industry occupies a pivotal position in bolstering sustainable growth through its financial intermediation function. Banks not only act as providers of financing, but also as directors of fund allocation to environmentally friendly and socially responsible economic activities. With the increasing attention of investors and stakeholders to ESG aspects, sustainability practices have become an important factor in assessing the operational effectiveness and future viability of financial institutions (Hasanah & Paramita, 2025).

The worth of a firm is a manifestation of how investors evaluate its operational success, prospects, and management quality (Afifah et al., 2021). Bringham (2006:19) in (Susilo, 2018) explains that investors' assessment of company value is now based not only on financial indicators, but also on the implementation of sustainability strategies. One such strategy is

green investment, which is the allocation of funds to activities that support environmental protection and environmental risk mitigation (Azhari & Hasibuan, 2023). In the banking sector, green investment reflects a commitment to green financing and long-term operational stability (Ilham, 2025), which is also reinforced by government regulations such as Law No. 11 of 2020.

In addition, CSR has become an essential mechanism for bolstering corporate sustainability through improved stakeholder relations and social legitimacy (Rasyid et al., 2022). The application of CSR in the banking sector has been further strengthened by POJK No. 51/POJK.03/2017 regarding the execution of sustainable finance structures and financial frameworks. However, prior empirical evidence concerning the influence of green investment and CSR on company value still shows diverse and inconsistent results.

The differences in the research results indicate a research gap, particularly in the banking sector, which has specific risk and regulatory characteristics. In addition, the 2020–2024 period is an important phase marked by the strengthening of sustainable finance regulations and post-pandemic economic dynamics. Therefore, the objective of this study aims to assess the manner in which green funding and CSR initiatives influence the valuation of banking firms listed on the Indonesia Stock Exchange for the 2020–2024 period, to provide empirical evidence and act as a guideline for corporate executives, shareholders, and regulators in formulating more effective sustainability policies.

Method

A quantitative methodology incorporating descriptive techniques is employed in this current study in order to examine the influence of green investment as well as CSR toward corporate worth. This methodology was selected to validate the cause-and-effect relationships between variables using statistical evidence (Sugiyono, 2019). obtained from banking firms' annual and sustainability reports, serves as the primary source for this research. These documents were retrieved through the formal IDX portal and the respective corporate websites. The study's population encompasses every banking entity quoted on the IDX from 2020 to 2024. A judgmental sampling approach was utilized, adhering to the specific requirements outlined below: (1) banking companies that were listed consecutively during the research period, (2) published complete financial reports and annual reports, and (3) had data relevant to the research variables. In accordance with the requirements, a total of 35 banking firms were selected for inclusion in the study, with a total of 175 observations.

Table 1. Variable Operations

Variable	Indicator	Reference Source
Firm Value	$\text{PBV} = \frac{\text{Market price per share}}{\text{Book value per share}}$	(Zulfa & Purnamasari, 2025)
Green Investment	$\text{GI} = \frac{\text{Total environmental expenditures}}{\text{Total assets}}$	(Hafizza Tasya Agatha & Titik Aryati, 2024)
CSR	$\text{CSRDIj} = \frac{\sum \text{xij}}{\text{nj}}$	(Putri et al., 2016)

This study uses several analytical methods, which consist of descriptive statistics, tests for classical assumptions, multivariate linear regression modeling, evaluation of hypotheses, and the coefficient of determination using SPSS 23 software.

Results and Discussion

Descriptive Statistical Test

Table 2. Descriptive Analysis Test Results

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Green Investment (GI)	175	.01	2.65	.2321	.38490
Corporate Social Responsibility (CSR)	175	.04	1.25	.4291	.24547
Firm Value (PBV)	175	.27	12.47	1.7666	1.92123
Valid N (listwise)	175				

Descriptive statistical tests are used to describe the characteristics of research data based on minimum, maximum, mean, and standard deviation values (Ghozali, 2018). Analysis of 175 banking observations for the 2020–2024 period shows that Green Investment (GI) has a low mean (0.2321) with considerable variation, indicating that the implementation of green investment is still limited and varies between banks. Corporate Social Responsibility (CSR) exhibits a mean value of 0.4291 with less variation, indicating that the scope of CSR-related disclosures is identified as being in the intermediate range and relatively more uniform, possibly influenced by regulations. Company Value (PBV) has an average of 1.7666, reflecting positive market assessment, but with large variations, suggesting variations in how shareholders evaluate the operational success and future potential of individual banking institutions.

Classical Assumption Test

a) Normality Test

Table 3. Normality Test Results

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		175
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	1.17393936
Most Extreme Differences	Absolute	.063
	Positive	.058
	Negative	-.063
Test Statistic		.063
Asymp. Sig. (2-tailed)		.088[c]

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

A normality test is performed to verify that the error terms within the regression framework follow a normal distribution pattern, as this is an important prerequisite for producing accurate parameter estimates (Ghozali, 2018). According to the findings derived from the normality assessment, using the Kolmogorov-Smirnov method on 175 observations, a test statistic value of 0.063 was obtained with an Asymp. Sig. (2-tailed) value of 0.088. Since the calculated significance level (0.088) is higher than the alpha of 0.05, it is evident that the regression residuals satisfy the assumption of normality.

b) Multicollinearity Test

Table 4. Multicollinearity Test Result

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	T	Sig.	Tolerance	VIF
1	(Constant)	-.005	.151		-.035	.972		
	Green Investment (GI)	2.405	.410	.311	5.872	.000	.956	1.046

Corporate Social Responsibility (CSR)	3.069	.271	.601	11.335	.000	.956	1.046

a. Dependent Variable: Firm Value (PBV)

Multicollinearity testing is conducted to identify potential strong correlations between the predictor factors in the regression model. According to the analysis, the results show a tolerance value of 0.956 and a VIF of 1.046 inside the regression environment. These values meet the criteria of Tolerance > 0.10 and VIF < 10.00, the results confirm the absence of a high correlation between the predictor variables.

c) Heteroscedasticity Test

Table 5. Heteroscedasticity Test Results

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.687	.055		12.487	.000
	Green Investment (GI)	.216	.123	.133	1.763	.080
	Corporate Social Responsibility (CSR)	-.004	.006	-.057	-.755	.451

a. Dependent Variable: ABS_RES

To assess the presence of unequal variance in the model's residuals, a heteroscedasticity evaluation was carried out (Ghozali, 2018). The Glejser test results showed that the significance values of the GI (0.080) and CSR (0.451) variables were greater than α = 0.05. Consequently, it is evident that the regression model maintains a constant variance of residuals, indicating the absence of heteroscedasticity.

d) Autocorrelation Test

Table 6. Autocorrelation Test Results

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.733[a]	.537	.532	1.18074	2.023

a. Predictors: (Constant), Corporate Social Responsibility (CSR), Green Investment (GI)

b. Dependent Variable: Firm Value (PBV)

An autocorrelation test is performed to investigate whether there is a dependency between the error terms of the present interval (t) and the preceding one within a linear regression framework, a condition typically found in time series or panel data (Ghozali, 2018). Based on the Durbin–Watson test, a DW value of 2.023 was obtained. With n = 175 and k = 2 at α = 0.05, this value falls within the range of du < DW < 4–du (1.7758 < 2.023 < 2.2242). Thus, the results confirm that the study's model satisfies the assumption of non-autocorrelation and the residuals between periods are not correlated with each other.

Multiple Linier Regression Analysis Test

Table 7. Multiple Linear Regression Analysis Results

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	T	Sig.	Tolerance	VIF
1	(Constant)	-.005	.151		-.035	.972		
	Green Investment (GI)	2.405	.410	.311	5.872	.000	.956	1.046
	Corporate Social Responsibility (CSR)	3.069	.271	.601	11.335	.000	.956	1.046

a. Dependent Variable: Firm Value (PBV)

This study utilizes multiple linear regression to determine the effect of Green Investment and CSR on Company Value (Ghozali, 2018). Drawing from the estimation outputs, it is observed that the following regression equation was obtained:

$$Y = -0.005 + 2.405X_1 + 3.069X_2 + e$$

The specific components of the equation are elaborated below:

1. The constant value of −0.005 indicates that without Green Investment and CSR, company value tends to decline, although the effect is not significant.
2. The Green Investment coefficient of 2.405 indicates a positive relationship, where an increase in green investment will increase company value.
3. Meanwhile, the CSR coefficient of 3.069 also has a positive effect and is greater than Green Investment, indicating that the market is more responsive to the disclosure of social responsibility in increasing company value.

Hypothesis Testing

a) Partial Test (t-Test)

Table 8. Partial Test (t-Test) Results

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	-.005	.151		-.035	.972		
	Green Investment (GI)	2.405	.410	.311	5.872	.000	.956	1.046
	Corporate Social Responsibility (CSR)	3.069	.271	.601	11.335	.000	.956	1.046

a. Dependent Variable: Firm Value (PBV)

The partial influence of the independent variables was evaluated using t-tests (Ghozali, 2018), showing that Green Investment significantly enhances company value. Statistical evidence includes a coefficient of 2.405 and a t-count (5.872) surpassing the t-table (1.65361), alongside a significance value below the 0.05 threshold, thus validating H1. In a similar vein, CSR has been demonstrated to exert a substantial positive and statistically significant impact, as evidenced by a 3.069 coefficient and a substantial t-value of 11.335 ($p < 0.05$), leading to the acceptance of H2.

b) Determination Coefficient Test (Adjusted R Square)

Table 9. Determination Coefficient Test Results

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.733[a]	.537	.532	1.18074	2.023

a. Predictors: (Constant), Corporate Social Responsibility (CSR), Green Investment (GI)

b. Dependent Variable: Firm Value (PBV)

The R-squared (R^2) value represents the degree to which the model's predictor variables can explain for fluctuations in firm value (Ghozali, 2018). The analysis results obtained an R^2 value of 0.537, The statistical results indicate that 53.7% of the changes in Firm Value (PBV) can be attributed to the combined effect of Green Investment and CSR. Meanwhile, the remaining 46.3% is explained by additional factors beyond the scope of this regression model. This value is classified as moderate to strong, indicating that sustainability aspects play a significant role in shaping the value of banking companies.

The Effect of Green Investment on Firm Value

Based on the empirical evidence, Green Investment is demonstrated to exert a notably beneficial influence on company value. This shows that the greater the efforts of banking

companies in allocating green investments, the higher the positive market response, as manifested in the rising valuation of the company. These findings align with stakeholder theory, positing that firms implementing environmentally friendly investments can foster more robust connections with stakeholders, particularly those with environmentally conscious investors and the surrounding community, thereby ultimately optimizing company value. The empirical evidence from this research supports the conclusions of earlier studies, including (Astuti et al., 2025) who established a significant positive correlation between green financing initiatives and the market value of a firm through increased efficiency and reputation, and (Maulana, 2024), who showed that green investment is able to meet stakeholder expectations and encourage the optimization of the company's market value.

The Effect of CSR on Firm Value

The analysis reveals that CSR initiatives exert a favorable and meaningful influence upon corporate value, as supported by significant test outcomes. These findings show that a more comprehensive disclosure of CSR activities acts as a compelling signal for investors, thereby increasing market confidence and driving up company value in the capital market. Consistent with stakeholder theory, which asserts that the implementation of CSR helps companies maintain a balance between achieving economic profits and fulfilling social responsibilities, which ultimately optimizes company value. This outcome aligns with the results of (Afifah et al., 2021), which shows that CSR affects company value through increased stakeholder trust, and reinforced by (Karina & Setiadi, 2020), who state that CSR as part of stakeholder theory can reduce conflicts with social stakeholders, thereby positively impacting the increase in company market value.

Conclusion

The empirical results of this research conclude that for the 2020–2024 timeframe, Green Investment and Corporate Social Responsibility have served as meaningful drivers for the market valuation of banking firms listed on the Indonesia Stock Exchange. Increased green investment can strengthen investor confidence and enhance the investment community's outlook regarding the firm's future performance. In addition, CSR has a more dominant influence, indicating that corporate transparency and social commitment are strong positive signals in increasing company value. These findings confirm that the implementation of sustainability strategies is an important factor in creating long-term company value.

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