

Examining the Impact of Green Loans and Green Investment on Credit Growth in Indonesian Islamic Banks

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Abstract

The implementation of sustainable finance in Indonesia has accelerated following the issuance of Financial Services Authority Regulation Number 51/POJK.03/2017, which encourages Islamic banks to integrate environmental and social considerations into their financing activities. This study aims to examine the effect of green loans and green investment on credit growth at Bank Syariah Indonesia using a quantitative approach based on Stakeholder Theory, Signaling Theory, and Pecking Order Theory. Secondary data were obtained from the monthly financial reports of Bank Syariah Indonesia for the period January 2023 to December 2024 and analyzed using multiple linear regression with EViews. The results indicate that both green loans and green investment have a positive and significant effect on credit growth. These findings suggest that sustainable finance practices can strengthen the intermediation function of Islamic banking while supporting sustainable credit growth.

Implementasi keuangan berkelanjutan di Indonesia semakin berkembang sejak diterbitkannya Peraturan Otoritas Jasa Keuangan Nomor 51/POJK.03/2017 yang mendorong perbankan syariah untuk mengintegrasikan aspek lingkungan dan sosial dalam kegiatan pembiayaan. Penelitian ini bertujuan menganalisis pengaruh green loan dan green investment terhadap pertumbuhan kredit pada Bank Syariah Indonesia dengan menggunakan pendekatan kuantitatif yang didasarkan pada Stakeholder Theory, Signaling Theory, dan Pecking Order Theory. Data sekunder diperoleh dari laporan keuangan bulanan Bank Syariah Indonesia periode Januari 2023 hingga Desember 2024 dan dianalisis menggunakan regresi linier berganda dengan EViews. Hasil penelitian menunjukkan bahwa green loan dan green investment berpengaruh positif dan signifikan terhadap pertumbuhan kredit. Temuan ini mengindikasikan bahwa penerapan keuangan berkelanjutan mampu memperkuat fungsi intermediasi perbankan syariah sekaligus mendukung pertumbuhan kredit yang berkelanjutan.

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INTRODUCTION

The development of sustainable finance in Indonesia has accelerated significantly, particularly following the enactment of Financial Services Authority (OJK) Regulation No. 51/POJK.03/2017, which requires financial institutions to incorporate sustainability principles into their operational and financing activities. As the largest Islamic bank in Indonesia, established through the merger of three state-owned Islamic banks in 2021, Bank Syariah Indonesia (BSI) has demonstrated its commitment to sustainability through the expansion of environmentally oriented financing (green loans) and sustainable investment initiatives (green investment). Although the value of green loans and green investments at BSI has continued to increase, their proportion relative to total financing remains relatively modest. Meanwhile, the banking sector continues to exhibit positive credit growth. According to the Indonesian Sustainable Finance Instrument Statistics (OJK, 2025), financing allocated to environmentally sustainable business activities increased substantially from IDR 705,154 billion in 2019 to IDR 2,047,366 billion in 2024. This trend reflects the growing commitment of financial institutions, including Islamic banks, to advancing sustainability practices within Indonesia's financial sector.



Figure 1. Infographic of Indonesia's Sustainable Finance Instruments Statistics
Source: Financial Services Authority (OJK), 2025.

Based on recent trends, green loan financing in Indonesia has experienced consistent growth over the past five years, particularly during the period from 2021 to 2024. This development indicates a rising awareness among financial institutions regarding the importance of supporting sustainable and environmentally responsible projects. However, the share of green investment remains relatively small compared with overall credit distribution, highlighting the need for more effective strategies to enhance its competitiveness and contribution to financial performance. These developments reinforce the strategic role of Islamic banks, especially BSI, in promoting environmentally oriented financing as part of broader efforts to support sustainable national development.

The increasing emphasis on sustainable finance within the banking industry has raised important questions regarding the extent to which green loans and green investments contribute to credit growth at BSI. Previous studies have reported positive outcomes, including the ability of sustainable investments to improve the profitability and efficiency of Islamic banks (Hidayat et al., 2024), the contribution of environmentally friendly financing to the profitability of conventional banks in Indonesia (Sutrisno & Furqan, 2023), and the efficiency benefits of green finance instruments for both conventional and Islamic small-scale banks (Irfany et al., 2024). Nevertheless, other studies have produced mixed findings, indicating that green credit does not significantly affect banking stability (Sutrisno et al., 2024), does not consistently reduce Non-Performing Loan (NPL) risk (Fata & Arifin, 2024), and may generate profitability gains only in the short term (Kurniawan et al., 2025). These inconsistencies suggest the need for a more focused investigation into the relationship between green loans, green investments, and credit growth within the specific context of Bank Syariah Indonesia.

Despite BSI's commitment to implementing green finance by integrating environmental and social considerations into its financing and investment activities, existing evidence suggests that these initiatives have not yet fully optimized credit growth. Several challenges continue to hinder the effective implementation of sustainable finance, including the limited adoption of innovation and insufficient customer awareness of sustainable financial products (Musyaffi et al., 2023). Furthermore, regulatory frameworks and supervisory mechanisms that are not yet fully integrated may constrain the effectiveness

of green loan distribution within Islamic banking institutions (Abubakar et al., 2021). Against this backdrop, this study seeks to examine the influence of green loans and green investments on credit growth at Bank Syariah Indonesia. In addition, the study aims to identify the most influential variable and evaluate the extent to which sustainable finance practices contribute to the enhancement of financing performance and credit expansion within Indonesia's largest Islamic banking institution.

Stakeholder Theory emphasizes that companies are responsible not only to shareholders but also to a wider range of stakeholders, including society, the environment, and policymakers. The theory argues that organizational success is influenced by the ability to balance economic objectives with the interests and expectations of various stakeholder groups. In the context of green finance, the implementation of green loans and green investment by Bank Syariah Indonesia reflects a commitment to sustainable economic development while fulfilling broader social and environmental responsibilities. These initiatives are aligned with the principles of Environmental, Social, and Governance (ESG), which serve as a framework for assessing a company's commitment to environmental sustainability, social responsibility, and sound corporate governance. The adoption of these principles can strengthen public trust, enhance the reputation of Islamic financial institutions, and demonstrate a strong commitment to sustainability and ethical business practices (Tumewang et al., 2024).

Signaling Theory posits that corporate policies and actions can serve as signals to investors and the public in assessing an organization's commitment, credibility, and performance. Within this study, the implementation of green finance at Bank Syariah Indonesia represents a positive signal of the bank's commitment to sound governance, social responsibility, and environmental sustainability. By adopting sustainable financing practices, the bank can communicate its long-term commitment to responsible and ethical banking practices. Such signals may strengthen investor confidence, enhance the institution's reputation, and ultimately contribute to greater stability within Islamic financial institutions (Khamisu et al., 2025).

Pecking Order Theory explains that companies follow a hierarchy of financing preferences, beginning with internal funds, followed by debt, and finally external equity. In the context of Islamic banking, the implementation of green loans and green investment reflects the bank's ability to allocate and manage funding sources efficiently to support sustainable financing activities. Banks that are able to manage their internal funds effectively tend to be more proactive in providing green finance while reducing excessive reliance on external sources of capital (Ardianto et al., 2024).

Various empirical studies have demonstrated that the implementation of green loans and green investment plays a significant role in promoting credit growth in Islamic banking, including Bank Syariah Indonesia. Green finance directed toward sustainable projects has been shown to support productive credit growth while strengthening financial stability, particularly because such financing may be associated with a lower risk of credit default (Tumewang et al., 2024). Furthermore, the adoption of Environmental, Social, and Governance (ESG) principles can enhance institutional reputation, transparency, and customer confidence, ultimately strengthening the bank's capacity to expand credit distribution (Khamisu et al., 2025).

In addition, effective Sharia-based governance and the implementation of green finance can strengthen the relationship between green loans and credit growth by improving banking efficiency and accountability (Ardianto et al., 2024). In a similar context, Safitri et al. (2025) emphasize that ESG initiatives play an important role in connecting sustainability-oriented policies with improved corporate financial performance, which is closely related to the application of green loans and green investment in Islamic banking (Safitri et al., 2025). Overall, the relationship between green loans, green investment, and credit growth at Bank Syariah Indonesia tends to be positive, although its effectiveness remains highly dependent on the bank's risk management capabilities and the availability of adequate sustainability-oriented policy support.

Green loan reflects a bank's commitment to providing financing that supports sustainable economic activities while aligning with Environmental, Social, and Governance (ESG) principles. At Bank Syariah Indonesia (BSI), this type of financing is represented by productive profit-sharing schemes, particularly *mudharabah* and *musyarakah* financing. Both schemes demonstrate the bank's support for the

development of the real sector through partnership-based financing, responsible business management, and the creation of sustainable economic value (Hidayat et al., 2024).

Mudharabah financing refers to a cooperation agreement in which the capital provider entrusts funds to a business manager (mudharib) to be utilized in productive activities, with profits distributed according to an agreed-upon ratio, while losses are borne by the capital provider unless they result from the manager's negligence. Meanwhile, musyarakah financing represents a partnership arrangement in which both parties contribute capital and share profits or losses according to their respective capital contributions or mutually agreed terms (Kurniawan et al., 2025). These two financing contracts are consistent with the principles of green finance because they channel funds toward the real sector, generate economic value, promote economic, social, and environmental sustainability, and minimize financing directed toward consumption and high-risk investment activities.

Green investment reflects the long-term commitment of financial institutions to allocating funds to sectors and financial instruments that support environmental and social sustainability. At Bank Syariah Indonesia (BSI), green investment is measured through the bank's allocation of funds to State Sharia Securities (Surat Berharga Syariah Negara or SBSN), which can be represented by the securities held by the bank. These securities include investments in government sukuk, Sharia-compliant money market instruments, and other financial securities with the potential to support environmentally friendly projects and sustainability-oriented activities. The expansion of green investment represents an important strategy for strengthening the bank's long-term resilience while diversifying its asset portfolio and demonstrating a stronger commitment to the principles of green finance (Kurniawan et al., 2025). The higher the value of this ratio, the greater the bank's contribution to sustainable financing that supports environmentally responsible development within the financial sector (Sutrisno & Furqan, 2023).

Credit growth reflects the increase in a bank's capacity to distribute financing over time. In the context of Islamic banking, the term credit is equivalent to financing, meaning that credit growth is measured based on the increase in total financing distributed by the bank. Financing growth indicates the effectiveness of the bank's fund distribution policies, reflects public confidence in the Islamic banking system, and highlights the bank's role as a financial intermediary. Stable financing growth also suggests increasing productive economic activity and the bank's ability to manage third-party funds effectively (Fata & Arifin, 2024). This variable is measured based on the total funds distributed by the bank, including receivables and overall financing consisting of profit-sharing and lease-based financing. In assessing banking performance, additional indicators such as Return on Assets (ROA), Return on Equity (ROE), and Financing to Deposit Ratio (FDR) can also be employed to evaluate the effectiveness of financing distribution in generating bank profitability (Sutrisno & Furqan, 2023).

Green loans represent financing provided by banks to support environmentally friendly projects, such as renewable energy development, emission reduction, and energy efficiency improvement. The provision of such financing reflects a bank's commitment to implementing sustainable finance principles while expanding its financing portfolio toward productive and environmentally responsible activities. As the allocation of green loans increases, banks may have greater opportunities to stimulate productive credit growth, particularly because environmentally oriented projects generally offer long-term economic prospects and relatively measurable risks. In this context, the expansion of green loan financing can strengthen the bank's intermediation function by directing funds toward sectors that generate both economic and sustainability-related value. Therefore, a greater allocation of financing to environmentally responsible sectors is expected to contribute positively to credit growth at Bank Syariah Indonesia (Hidayat et al., 2024). Based on this rationale, the first hypothesis is formulated as follows:

H1: Green loans have a positive effect on credit growth at Bank Syariah Indonesia.

The Effect of Green Investment on Credit Growth

Green investment refers to the allocation of bank capital to economic activities that prioritize sustainability, such as clean energy companies and environmental management initiatives. Such investments not only contribute to the development of the green economy but may also strengthen the bank's asset structure by supporting a more diversified and sustainability-oriented investment portfolio. In

addition, green investments may provide relatively stable returns and manageable levels of risk, thereby strengthening the bank's financial capacity over the long term. As the proportion of green investment increases, the bank may have greater capacity to expand its financing activities through a healthier and more sustainable asset portfolio. Consequently, greater investment in sustainability-oriented sectors is expected to contribute to the expansion of credit distribution and, ultimately, enhance credit growth at Bank Syariah Indonesia (Kurniawan et al., 2025). Based on this rationale, the second hypothesis is formulated as follows:

H2: Green investment has a positive effect on credit growth at Bank Syariah Indonesia.

METHOD

The population in this study consists of Bank Syariah Indonesia's monthly financial reporting data covering a two-year period from January 2023 to December 2024. This period was selected as it is considered sufficiently representative of the development of BSI's environmentally oriented financing and investment activities following the implementation of green finance policies. The population encompasses all available data containing information on green loans, green investment, and credit growth. The sample was determined using purposive sampling, a sampling technique based on specific criteria to ensure that the selected data are relevant to the objectives of the study (Sugiyono, 2013). The criteria include BSI's monthly financial reports for 2023–2024 that have been officially published, provide detailed information on green finance indicators and total financing, and cover only periods in which profitability remained positive. Reports indicating negative profitability were excluded to minimize potential bias in examining the relationships among the variables. Data analysis was conducted using EViews (Econometric Views), an econometric software widely used to examine relationships among variables through regression models based on time-series data. In this study, EViews was employed to analyze the effects of green loans and green investment on credit growth at BSI using multiple linear regression. The regression model can be expressed as follows:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \varepsilon$$

Where Y represents credit growth, α denotes the constant, β_1 represents the regression coefficient of green loan (X_1), β_2 represents the regression coefficient of green investment (X_2), and ε represents the error term or other factors not included in the regression model. The analysis was further evaluated using the t-test to examine the individual effect of each independent variable and the F-test to assess their simultaneous effect on credit growth. Furthermore, the coefficient of determination (R^2) was used to measure the extent to which green loan and green investment explain variations in credit growth at BSI (Hidayat et al., 2024).

RESULT AND DISCUSSION

Descriptive statistics provide an overview of the characteristics of the research data, covering green loan, green investment, and credit growth at Bank Syariah Indonesia during the period from January 2022 to December 2024, with a total of 36 monthly observations.

Green Loan: The average green loan financing amounted to IDR 84.16 million, with a standard deviation of IDR 18.33 million, indicating relatively high variability throughout the observation period. The minimum value of IDR 58.66 million and the maximum value of IDR 131 million suggest a substantial increase in the distribution of green loans over the period examined. This variation reflects changes in the bank's allocation of environmentally oriented financing in response to the development of sustainable financing activities.

Green Investment: The average green investment amounted to IDR 61.38 million, with a standard deviation of IDR 6.73 million, indicating a relatively more stable pattern compared with green loans. The observed values ranged from IDR 51.28 million to IDR 75.43 million, suggesting greater consistency in the allocation of sustainable investments throughout the observation period.

Table 1. Descriptive Statistics Results

Date: 11/28/25 Time: 11:14 Sample: 2022M01 2024M12			
	GREEN_LO	GREEN_INV	PERTUMBU
Mean	84162409	61375828	99518036
Median	82648763	61229193	97161694
Maximum	1.31E+08	75425372	1.44E+08
Minimum	58657517	51275100	64126630
Std. Dev.	18334661	6734774.	21233046
Skewness	0.545313	0.331908	0.447599
Kurtosis	2.591048	2.223572	2.432871
Jarque-Bera	2.035058	1.565238	1.684522
Probability	0.361487	0.457207	0.430736
Sum	3.03E+09	2.21E+09	3.58E+09
Sum Sq. Dev.	1.18E+16	1.59E+15	1.58E+16
Observations	36	36	36

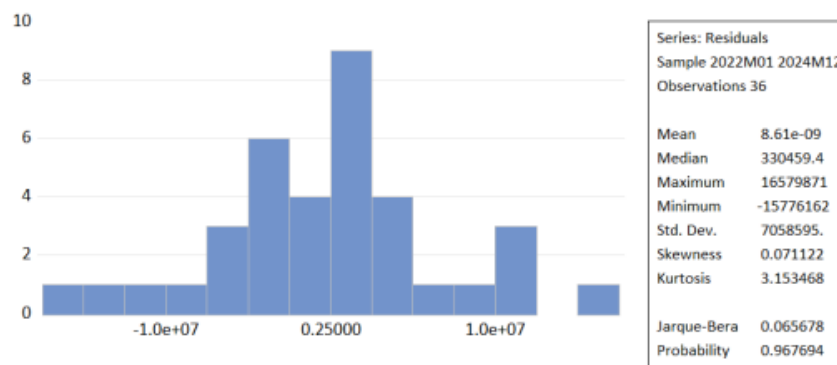
Source: Processed by the Researchers (2025)

Credit Growth: The average credit growth reached IDR 99.52 million, with a standard deviation of IDR 21.23 million, indicating considerable fluctuations during the study period. The maximum value reached IDR 144 million, reflecting a substantial expansion in financing activities and demonstrating the dynamic development of BSI's financing distribution.

Normality Test

The normality test was conducted to determine whether the residuals of the regression model are normally distributed. The analysis employed the Jarque-Bera test, with the results presented as follows:

Table 2. Normality Test Results



Source: Processed by the Researchers (2025)

The results of the Jarque-Bera normality test indicate a probability value of 0.9677, which is greater than the 0.05 significance level. This result confirms that the residuals are normally distributed. Furthermore, the skewness value of 0.071, which is close to zero, and the kurtosis value of 3.153, which is close to the normal distribution benchmark of three, provide additional evidence supporting the assumption of normality. Therefore, the residuals satisfy the normality assumption, indicating that the regression model meets the required statistical criteria and is appropriate for further analysis.

Multicollinearity Test

The multicollinearity test was conducted to determine whether a high degree of correlation exists among the independent variables in the regression model. The test was performed using the Variance Inflation Factor (VIF), with a VIF value of less than 10 indicating the absence of multicollinearity.

Table 3. Multicollinearity Test Results

Variance Inflation Factors			
Date: 11/28/25 Time: 11:19			
Sample: 2022M01 2024M12			
Included observations: 36			
Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	1.72E+14	117.2107	NA
GREEN_LOAN	0.004531	22.87529	1.008909
GREEN_INVESTMENT	0.033584	87.19457	1.008909

Source: Processed by the Researchers (2025)

The results of the multicollinearity test show that the Centered VIF values for both independent variables are 1.009, which is well below the threshold of 10. This finding indicates that no multicollinearity problem exists within the regression model. The relatively low VIF value further suggests that Green Loan and Green Investment do not exhibit a high degree of correlation with one another. Therefore, both independent variables can be simultaneously incorporated into the regression model without causing distortions associated with multicollinearity, allowing their individual effects on credit growth to be examined more reliably.

Autocorrelation Test

The autocorrelation test was conducted to determine whether there is a correlation between the residual at period t and the residual from the previous period ($t-1$). The analysis employed the Breusch-Godfrey Serial Correlation LM Test to identify the presence of serial correlation in the regression model.

Table 4. Autocorrelation Test Results

Breusch-Godfrey Serial Correlation LM Test:			
Null hypothesis: No serial correlation at up to 2 lags			
F-statistic	0.138319	Prob. F(2,31)	0.8714
Obs*R-squared	0.318416	Prob. Chi-Square(2)	0.8528

Source: Processed by the Researchers (2025)

The results of the autocorrelation test show a probability value of 0.8714 for the F-statistic and 0.8528 for Obs*R-squared, both of which are greater than the 0.05 significance level. These results indicate that there is no autocorrelation in the regression model. In addition, the Durbin-Watson value of 1.832 is within an acceptable range and relatively close to the benchmark value of 2, further supporting the absence of meaningful serial correlation. Therefore, the assumption of no autocorrelation is satisfied, indicating that the residuals are sufficiently independent across observation periods and that the regression model is appropriate for subsequent analysis.

Heteroskedasticity Test

The heteroskedasticity test was conducted to determine whether the variance of the residuals differs across observations within the regression model. The analysis employed the White Test to assess whether the residual variance remains constant throughout the observation period.

Table 5. Heteroskedasticity Test Results

Heteroskedasticity Test: White			
Null hypothesis: Homoskedasticity			
F-statistic	1.352246	Prob. F(5,30)	0.2700
Obs*R-squared	6.621222	Prob. Chi-Square(5)	0.2504
Scaled explained SS	5.990589	Prob. Chi-Square(5)	0.3071

Source: Processed by the Researchers (2025)

The results of the White Test indicate probability values of 0.2700 for the F-statistic, 0.2504 for Obs*R-squared, and 0.3071 for Scaled Explained SS. Since all three probability values are greater than the 0.05 significance level, the results indicate that the regression model does not exhibit heteroskedasticity. In other words, the residual variance can be considered relatively constant across observations, satisfying the homoskedasticity assumption. Therefore, the classical regression assumptions are adequately fulfilled, supporting the reliability and consistency of the estimated regression results for subsequent analysis.

Multiple Linear Regression Analysis

Multiple linear regression analysis was employed to examine the effects of green loan (X_1) and green investment (X_2) on credit growth (Y) at Bank Syariah Indonesia. The analysis aims to determine the direction and magnitude of the relationship between each independent variable and credit growth while controlling for the other variable in the model.

Table 6. Multiple Linear Regression Results

Dependent Variable: PERTUMBUHAN_KREDIT				
Method: Least Squares				
Date: 11/28/25 Time: 11:15				
Sample: 2022M01 2024M12				
Included observations: 36				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	36068026	13116795	2.749759	0.0096
GREEN_LOAN	1.066155	0.067315	15.83821	0.0000
GREEN_INVESTMENT	-0.428185	0.183259	-2.336507	0.0257
R-squared	0.889487	Mean dependent var	99518036	
Adjusted R-squared	0.882790	S.D. dependent var	21233046	
S.E. of regression	7269346.	Akaike info criterion	34.51589	
Sum squared resid	1.74E+15	Schwarz criterion	34.64785	
Log likelihood	-618.2859	Hannan-Quinn criter.	34.56194	
F-statistic	132.8042	Durbin-Watson stat	1.831806	
Prob(F-statistic)	0.000000			

Source: Processed by the Researchers (2025)

Regression Equation Model: $Y = 36.068.026 + 1.066155 X_1 - 0.428185 X_2 + \varepsilon$

Constant (α): The constant value of 36.068.026 indicates that when green loan and green investment are assumed to be zero, credit growth at Bank Syariah Indonesia is estimated at approximately IDR 36.07 million. Green Loan Coefficient (β_1): The coefficient of 1.066155, which is positive, indicates that every one-unit increase in green loan is associated with an increase in credit growth of 1.066155 units, assuming the other variable remains constant. This positive relationship suggests that profit-sharing-based financing, particularly mudharabah and musyarakah, contributes to the expansion of BSI's financing activities by directing funds toward productive economic sectors.

Green Investment Coefficient (β_2): The coefficient of -0.428185 , which is negative, indicates that every one-unit increase in green investment is associated with a decrease in credit growth of 0.428185 units, ceteris paribus. This negative relationship may indicate the presence of a trade-off between allocating funds to long-term investment instruments and directly expanding financing distribution. In other words, a greater allocation of resources toward green investment may temporarily reduce the funds available for direct financing expansion.

Partial Test (t-Test)

The t-test was conducted to examine the individual effect of each independent variable, namely green loan and green investment, on the dependent variable, credit growth. The hypothesis testing was performed at a 5% significance level ($\alpha = 0.05$). The results are presented in the following table.

Table 7. Partial Test (t-Test) Results

Variable	t-Statistic	t-Table	Prob.	Conclusion
<i>Green Loan</i>	15.83821	2.032	0.0000	Significant
<i>Green Investment</i>	-2.336507	2.032	0.0257	Significant

Source: Processed by the Researchers (2025)

Based on Table 7, green loan has a t-statistic of 15.83821, which exceeds the t-table value of 2.032, with a probability value of $0.0000 < 0.05$. This indicates that green loan has a statistically significant effect on credit growth. Meanwhile, green investment records a t-statistic of -2.336507, with an absolute value greater than 2.032 and a probability value of $0.0257 < 0.05$, indicating that green investment also has a statistically significant effect on credit growth. However, the negative coefficient indicates that the direction of its effect is negative. Overall, both independent variables demonstrate statistically significant individual effects on credit growth at Bank Syariah Indonesia.

The partial test results provide further insight into the individual effects of each independent variable on credit growth. For green loan, the test results show a t-statistic of 15.838 with a probability value of $0.0000 (< 0.05)$. Since the t-statistic of 15.838 is greater than the t-table value of 2.032, H_0 is rejected and H_1 is accepted. Therefore, Hypothesis 1 is supported, indicating that green loan has a positive and significant effect on credit growth at Bank Syariah Indonesia. This finding suggests that an increase in profit-sharing-based financing, particularly mudharabah and musyarakah, significantly contributes to the expansion of BSI's financing activities. The positive relationship indicates that financing directed toward productive economic activities can strengthen the bank's intermediation function while supporting the implementation of sustainable finance principles. This finding is consistent with Hidayat et al. (2024), who found that sustainable investment contributes to improving the profitability and efficiency of Islamic banks (Hidayat et al., 2024).

Meanwhile, the green investment variable records a t-statistic of -2.337 with a probability value of $0.0257 (< 0.05)$. The absolute t-statistic value of 2.337 exceeds the t-table value of 2.032, resulting in the rejection of H_0 and acceptance of H_2 . Accordingly, Hypothesis 2 is supported, indicating that green investment has a negative and significant effect on credit growth at Bank Syariah Indonesia. Although the effect is statistically significant, its negative direction indicates that an increase in investment in sustainable securities may reduce credit growth. This finding suggests the existence of a trade-off in the allocation of bank funds between long-term investment instruments and direct financing to the real sector. In other words, greater allocation to sustainable investment instruments may temporarily limit the funds available for direct financing expansion. This result differs from the initial hypothesis, which predicted a positive relationship, but is consistent with Kurniawan et al. (2025), who found that the positive effect of green finance on profitability tends to be limited to the short term (Kurniawan et al., 2025).

Simultaneous Test (F-Test)

The F-test was conducted to examine whether green loan and green investment jointly influence credit growth at Bank Syariah Indonesia. The hypothesis testing was performed at a 5% significance level ($\alpha = 0.05$). The results are presented in the following table.

Table 8. Simultaneous Test (F-Test) Results

Indicator	Value
F-statistic	132.8042
F-table	3.28
Prob(F-statistic)	0.000000

Source: Processed by the Researchers (2025)

Based on the F-test results, the calculated F-statistic of 132.8042 is substantially higher than the F-table value of 3.28, while the probability value of 0.000000 is below the 0.05 significance level. These findings indicate that green loan and green investment jointly have a statistically significant effect on credit

growth. The substantially large F-statistic further suggests that the combination of both independent variables provides a meaningful contribution to explaining variations in credit growth. Simultaneously, green loan and green investment demonstrate complementary roles in explaining changes in BSI's credit growth. Thus, considering both variables together provides a stronger representation of the factors associated with credit growth at Bank Syariah Indonesia.

Coefficient of Determination

The coefficient of determination is used to assess the extent to which the independent variables explain variations in the dependent variable. The R-squared (R^2) value ranges from 0 to 1, with a value closer to 1 indicating a stronger explanatory capacity of the regression model.

Table 9. Coefficient of Determination Results

R-squared	0.889487
Adjusted R-squared	0.882790

Source: Processed by the Researchers (2025)

Based on the results, the R-squared value of 0.8895, or 88.95%, indicates that green loan and green investment jointly explain 88.95% of the variation in credit growth at BSI. The remaining 11.05% is attributable to other factors outside the research model, such as macroeconomic conditions, monetary policy, customers' financial literacy, risk management effectiveness, and other external factors. Meanwhile, the Adjusted R-squared value of 0.8828, or 88.28%, which is relatively close to the R-squared value, indicates that the explanatory power of the model remains strong after accounting for the number of independent variables included. The relatively high coefficient of determination suggests that green loan and green investment provide a substantial contribution to explaining credit growth at BSI. Overall, these findings demonstrate that the regression model has a strong explanatory capacity in describing variations in Bank Syariah Indonesia's credit growth through the green finance variables examined.

The Effect of Green Loans on Credit Growth

The findings indicate that green loans have a positive and significant effect on credit growth at Bank Syariah Indonesia. Profit-sharing-based financing, particularly *mudharabah* and *musyarakah*, when allocated to sustainable projects, can strongly support the expansion of the bank's financing activities. This positive effect may arise because sustainable projects generally offer relatively stable long-term prospects, encouraging banks to expand their financing portfolios toward productive and environmentally responsible sectors. In addition, increased green loan distribution can strengthen the bank's reputation and stakeholder confidence, which may subsequently support greater fund mobilization. From the perspectives of Stakeholder Theory and Signaling Theory, a bank's commitment to ESG principles provides a positive signal to the market and can enhance the interest and confidence of both customers and investors. These findings are consistent with previous studies demonstrating that sustainable financing can improve the profitability and efficiency of Islamic banking (Hidayat et al., 2024; Sutrisno & Furqan, 2023). With a regression coefficient of 1.066, every 1% increase in green loan is associated with a 1.066% increase in credit growth, indicating a highly responsive relationship between sustainable financing and credit expansion.

The Effect of Green Investment on Credit Growth

The findings demonstrate that green investment has a negative and significant effect on credit growth at Bank Syariah Indonesia. This result differs from the initial hypothesis, which predicted a positive relationship, but provides an important perspective on the allocation of funds within Islamic banking. The negative effect may be attributed to a potential trade-off between allocating funds to sustainable investment instruments and maintaining sufficient funding capacity for productive-sector financing. As green investment increases, a portion of the bank's funds may be allocated to long-term securities, potentially

reducing the liquidity available for direct financing activities. Consistent with Pecking Order Theory, banks tend to prioritize internally available funds in determining their financing decisions. Consequently, greater allocation of internal resources to investment activities may temporarily constrain the bank's capacity to expand direct financing. Previous studies have likewise indicated that the positive effects of green finance on banking profitability may be relatively short-lived (Kurniawan et al., 2025; Sutrisno et al., 2024). Therefore, although green investment remains important for strengthening long-term financial resilience and sustainability, it may involve a short-term opportunity cost in the form of reduced capacity to expand productive financing.

The Contribution of Green Finance to BSI's Credit Growth

Overall, green finance, comprising green loans and green investment, explains 88.95% of the variation in BSI's credit growth. This finding provides strong evidence that sustainable finance strategies play an important role in supporting the expansion of financing within Islamic banking. The different directions of influence between the two variables also highlight the complexity of implementing green finance, particularly in balancing short-term financing capacity with long-term sustainability objectives. Therefore, BSI needs to establish a balanced fund allocation strategy between direct financing and long-term sustainable investments to maintain optimal credit growth without compromising its commitment to environmental and social sustainability. From a theoretical perspective, these findings further reinforce the relevance of Stakeholder Theory, Signaling Theory, and Pecking Order Theory in explaining how sustainable financial practices influence financing decisions and credit growth within Islamic banking.

CONCLUSIONS AND RECOMMENDATION

The distribution of green loans plays a significant role in driving credit growth at Bank Syariah Indonesia. Profit-sharing-based financing allocated to productive and sustainability-oriented activities provides greater opportunities for financing expansion, as the projects being financed generally possess strong long-term prospects and relatively manageable risks. This practice also strengthens stakeholder confidence, consistent with the perspectives of Stakeholder Theory and Signaling Theory, which emphasize that a bank's commitment to sustainability can serve as a positive signal of its governance quality and institutional credibility.

On the other hand, green investment exerts a negative effect on credit growth because a portion of the bank's funds is committed to long-term investment instruments, thereby reducing liquidity flexibility for direct financing. This pattern is consistent with Pecking Order Theory, whereby the prioritization of internal funds may constrain financing capacity as the proportion of investment increases. Overall, the model testing results demonstrate that green loan and green investment have significant effects on credit growth, with a strong explanatory contribution. The contrasting directions of these effects highlight the importance of maintaining a balanced green finance strategy between direct financing and long-term investment to optimize credit growth without compromising sustainability commitments. Accordingly, future research is encouraged to extend the observation period and incorporate additional determinants to provide a more comprehensive understanding of the mechanisms through which green finance influences Islamic banking.

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