ANALYSIS OF FINANCIAL PERFORMANCE ON GREEN CREDIT AND PROFITABILITY OF SHARIA BANKS IN INDONESIA

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Abstract

Green finance aims to integrate environmental aspects into economic decisions, adjust risk perceptions to encourage environmentally friendly investments, and minimize negative impacts on nature. One form of green finance in the banking sector is green credit, which is successfully implemented in several countries such as China. This study provides insight into the development of green credit in the banking sector, especially Islamic banking in Indonesia. The study used secondary data from the financial statements of Islamic banks from Sharia Commercial Bank (BUS) for the period 2019-2023, with the independent variables Capital Adequacy Ratio (CAR), Operating Costs to Operating Income (BOPO), Financing to Deposit Ratio (FDR), and Non-Performing Financing (NPF). The results showed that financial performance factors do not affect profitability through green credit in Islamic banks. This finding suggests that although green credit is a positive effort in achieving sustainability, its effectiveness in increasing the profitability of Islamic banks in Indonesia is still limited.

Keyword**:** *Green Credit; Profitability; Islamic Bank*

A. INTRODUCTION

In recent decades, the world has increasingly been faced with major challenges related to the environmental crisis due to ecological imbalance. Growing industrial activities cause an increase in carbon dioxide (CO2) and greenhouse gas (GHG) emissions that accelerate global warming and natural disasters. With the increasing challenges of environmental degradation and climate change due to inefficient economic activities, there is a great risk to global conditions. (L. Zhang et al., 2022). In 2015, the United Nations (UN) adopted 17 Sustainable Development Goals (SDGs) to realize a better and sustainable life by 2030 (Walsh et al., 2022).

In the era of sustainable development, the financial sector plays an important role, especially banking, in supporting SDGs through financial policies and practices (Andaiyani et al., 2023). The financial sector can encourage and hinder the creation of a cleaner environment (Wiek & Weber, 2014). Banking as part of Indonesia's financial system, not only plays a role in maintaining the country's economic stability but is also required to contribute to sustainable finance. Banks play a role in providing capital to all sectors of the economy, banks and other financial institutions have a major influence in the transition to a greener economy (Cui et al., 2018).

Green credit has emerged as a way to promote sustainable economic growth through banking by prioritizing the flow of funds to environmentally friendly businesses (Yasmin & Akhter, 2021). Islamic banking, as part of the national banking system, has the potential to contribute to the achievement of SDGs through green credit. Sharia principles that emphasize social justice and environmental responsibility make green credit in line with the Islamic financial system (Slamet, 2020). Islamic banking must be oriented towards the principle of sustainability (development) and be able to establish a guarantee of increasing the income of financial services for the community and the national economy(Sukardi, 2016). Islamic banking is expected to be a party that participates in encouraging three elements between social welfare, economic growth, and environmental sustainability (Jurnal, 2024).

A previous study in China investigated the relationship between bank financial performance and green credit. (Y. Zhang, 2018) in his study found that green credit positively contributes to bank profitability. Another study (Cui et al., 2018) also revealed that higher allocation to green credit can reduce credit risk. However, there are several studies in Indonesia, (Andaiyani et al., 2023) have produced mixed results, which show that green credit does not have a significant impact on bank performance, especially in terms of profitability. While in the research (Furqan & Sutrisno, 2024) stated that the green credit that has been carried out by banks in Indoneisia can affect bank profitability. Because of this, further research is needed regarding financial performance on green credit and banking profitability in Indonesia, especially Islamic banking.

This study aims to analyze financial performance such as CAR, BOPO, NPF, and FDR on green lending and its impact on the profitability of Islamic banks in Indonesia, as measured by ROA. In addition, this study

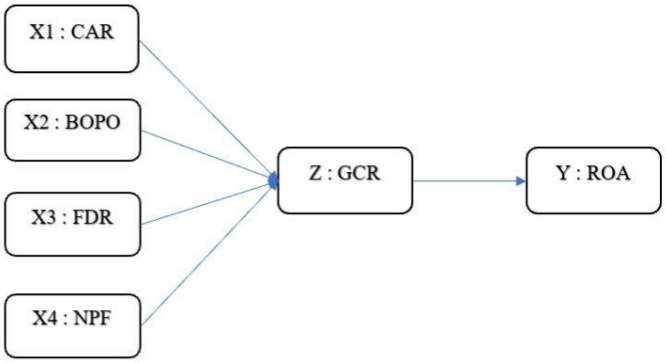
also aims to assess the role of green credit as an intervening variable in supporting sustainability and achieving the Sustainable Development Goals (SDGs) in Indonesia. In contrast to research (Andaiyani et al., 2023) and (Furqan & Sutrisno, 2024) which focuses on conventional banking, this study uses a sample of Islamic banks, namely Islamic commercial banks, so that it can fill the literature gap related to Islamic banking and its impact on sustainable finance in Indonesia.

B. LITERATURE REVIEW

Stakeholder Theory

According to the stakeholder theory by R. Edward Freeman in 1984 stated by (Freeman & McVea, 2005) said that the stakeholder theory is based on the relationship between the organization and its stakeholders, including shareholders, employees, customers, communities, and the environment. In the context of Islamic banking, this thesis is relevant because Islamic banks have broader social and ethical responsibilities, not only to shareholders, but also to the community, the environment, and other stakeholders. This thesis supports green credit because it encourages Islamic banks to be active in supporting environmentally friendly projects for the benefit of stakeholders, including the wider community and the natural environment.

Therefore, this study formulates the following framework :



C. RESEARCH METHODS

This study is a quantitative study. The type of data used in this research is quantitative data taken from secondary data, which is obtained from annual financial reports and annual financial reports that have been published through the website of the relevant Islamic Commercial Bank. The population used in this study is Islamic Commercial Banks that are registered with the Financial Services Authority (OJK) of Indonesia. The research sample is 8 Islamic Commercial Banks that match the research criteria using Sharia Commercial Bank (BUS) report data and sustainable reports during the period 2019 to 2023. The variables used in this study are independent variables (independent) namely Capital Adequacy Ratio (CAR), Operating Costs to Operating Income (BOPO), Financing to Deposit Ratio (FDR), Non-Performing Financing (NPF). The dependent variable is *Return on Assets* (ROA), and the intervening variable that affects the relationship between the dependent variable and the dependent variable is an indirect relationship and cannot be observed and measured. The intervening variable in this study is the Green Credit Ratio (GCR). The data processing method in this study uses Eviews 12 with multiple linear regression models. Before testing for this study, tests were first carried out, namely the Chow Test, Hausman Test and Lagrange Multiplier Test to determine the model to be used, namely the Commoin Effect Model (CEM), Fixed Effect Model (FEM), Random Effect Model (REM). Furthermore, the classical assumption test is carried out, namely Normality Test, Multicolinerity Test, Heteroscedasticity Test. Then to estimate the best test, the last analysis is the Hypothesis Test with the T test and F test. Furthermore, because it uses intervening variables, it is necessary to do the Sobel Test.

D. RESULTS AND DISCUSSION

SUBSTRUCTURAL TEST 1

T TEST

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-78.26127	15.02938	-5.207218	0.0000

X1	2.338190	0.281625	8.302494	0.0000
X2	0.086101	0.091410	0.941926	0.3527
X3	0.047310	0.136767	0.345919	0.7315
X4	10.14672	2.005003	5.060702	0.0000

The results of hypothesis testing in the t test in substructural test 1, namely the independent variable on the intervening variable, are as follows:

a. The t test results on CAR (X1) show a prob value of 0.000 less than 0.05. Then X1 affects the GCR (Z) BUS in Indonesia.
b. The t test results on BOPO (X2) show a prob value of 0.3527 more than 0.05. Then X2 has no effect on GCR (Z) BUS in Indonesia.
c. The t test results on FDR (X3) show a prob value of 0.7315 more than 0.05. Then X3 has no effect on GCR (Z) BUS in Indonesia.
d. The t test results on NPF (X4) show a prob value of 0.000 less than 0.05. Then X4 affects the GCR (Z) BUS in Indonesia.

F TEST

R-squared	0.722017
Adjusted R-squared	0.690248
S.E. of regression	16.96847
Sum squared resid	10077.52
Log likelihood	-167.3412
F-statistic	22.72676
Prob(F-statistic)	0.000000

The results of the hypothesis test, namely the f test, with a prob value (f-statistic) of 0.000000 less than 0.05, the independent variable affects the dependent variable.

SUB-STRUCTURAL TEST 2

T TEST

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	7.384193	2.163493	3.413089	0.0019
X1	0.032990	0.035461	0.930302	0.3596
X2	-0.111960	0.019193	-5.833481	0.0000
X3	0.018980	0.011141	1.703581	0.0988
X4	-0.060832	0.238975	-0.254553	0.8008
Z	-0.016204	0.011874	-1.364742	0.1825

The results of hypothesis testing in the t test in substructural test 2, namely the independent variable on the dependent variable, are as follows:

a. The t test results on CAR (X1) show a prob value of 0.3596 more than 0.05. Then X1 has no effect on ROA (Y) BUS in Indonesia.
b. The t test results on BOPO (X2) show a prob value of 0.0000 less than 0.05. Then X2 has an effect on ROA (Y) BUS in Indonesia.
c. The t test results on FDR (X3) show a prob value of 0.0988 more than 0.05. Then X3 has no effect on ROA (Y) BUS in Indonesia.
d. The t test results on NPF (X4) show a prob value of 0.8008 more than 0.05. Then X4 has no effect on ROA (Y) BUS in Indonesia.
e. The t test results on GCR (Z) show a prob value of 0.1825 more than 0.05. Then Z has no effect on ROA (Y) BUS in Indonesia.

F TEST

R-squared	0.682432
Adjusted R-squared	0.629504
S.E. of regression	1.168434
Sum squared resid	40.95713
Log likelihood	-53.40391
F-statistic	12.89357
Prob(F-statistic)	0.000001

The results of the hypothesis test, namely the f test, with a prob value (f-statistic) of 0.000001 less than 0.05, the independent variable affects the dependent variable.

SOBEL TEST

Z HYPOTHESIS TEST

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-78.26127	15.02938	-5.207218	0.0000
X1	2.338190	0.281625	8.302494	0.0000
X2	0.086101	0.091410	0.941926	0.3527
X3	0.047310	0.136767	0.345919	0.7315
X4	10.14672	2.005003	5.060702	0.0000

Y HYPOTHESIS TEST

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	7.384193	2.163493	3.413089	0.0019
X1	0.032990	0.035461	0.930302	0.3596
X2	-0.111960	0.019193	-5.833481	0.0000
X3	0.018980	0.011141	1.703581	0.0988
X4	-0.060832	0.238975	-0.254553	0.8008
Z	-0.016204	0.011874	-1.364742	0.1825

Based on the Beta value and Standard Error on X1, X2, X3, X4 on Y through Z, the results of the t value and t table are as follows:

- **a.** The result of X1 to Y through Z with the value of t count (1.35) < t table (2.03) which means CAR has no effect on ROA through GCR.
- **b.** X2 results on Y through Z with the value of t count (0.77) < t table (2.03) which means that BOPO has no effect on ROA through GCR
- **c.** The result of X3 on Y through Z with the value of t count (0.33) < t table (2.03) which means that FDR has no effect on ROA through GCR.
- **d.** The result of X4 on Y through Z with the value of t count (1.32) < t table (2.03) which means NPF has no effect on ROA through GCR

Thus the hypothesis is rejected and the data does not support the intervening model.

E. CONCLUSION

This study shows that green credit has not contributed significantly to increasing the profitability of Islamic banks, especially Islamic Commercial Banks (BUS) in Indonesia. Although financial performance variables such as CAR and NPF have a significant effect on green credit, other variables, namely BOPO and FDR, do not show a similar effect. In addition, green credit is also not proven to act as an intervening variable in the relationship between financial performance and profitability, as measured by ROA.

These results reflect that while green credit is a positive initiative to support sustainability and sharia principles, its implementation still faces challenges in making a real impact on the profitability of Islamic banks. This study emphasizes the need for a more strategic approach in integrating sustainability aspects into Islamic banking practices to maximize its contribution to sustainable development goals (SDGs).

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