THE ROLE OF GREEN BANKING AND FINANCIAL PERFORMANCE ON PROFITABILITY OF SHARIA COMMERCIAL BANK : CASE IN INDONESIA

Nanda Zukhrufi Prabowo[1] , Rizky Nur Ayuingtyas Putri[2]
Faculty of Islamic Economics and Business UIN Raden Mas Said Surakarta
Email: nndzkhrfi@gmail.com[1],rizky.nayuputri@staff.uinsaid.ac.id[2]

Abstract

This research seeks to examine the impact of green banking on the profitability of Islamic Commercial Banks in Indonesia from 2019 to 2023. Environmental performance is measured using water, fuel oil, and electricity energy efficiency indicators while financial performance is assessed using BOPO and NPF indicators. The purpose of calculating Islamic commercial banks' ROA is to assess their profitability. The data used in this research are secondary data collected using purposive sampling approaches. A quantitative approach was utilised for data analysis, namely panel data, and the eviews 10 software was used for data processing. For the years 2019–2023, we culled data from eight Islamic commercial banks' annual reports and sustainability reports that were on file with the Financial Services Authority. The research found no significant relationship between ROA and environmental performance as evaluated by fuel oil, water, and electricity efficiency. When it comes to ROA, the BOPO component is significantly negative, whereas NPF hasn't made a dent.

Keyword**:** *Green Banking; Environmental Performance; Financial Performance*

A. INTRODUCTION

The banking industry is confronted with the dual problem of promoting economic development and contributing to environmental sustainability in this age of globalisation characterised by heightened environmental consciousness (Karyani & Obrien, 2020). According to (Sharma & Choubey, 2022) sustainability is both a big trend in the industry and a key commercial goal for companies looking to innovate greener techniques. As a new standard "Green Banking" incorporates ecological considerations into financial institutions' daily practices and long-term plans. The growing number of people throughout the world worried about climate change and environmental damage is making this idea more important (Guang-Wen & Siddik, 2022).

The World Economic Forum identified economic and environmental crises as the most pressing global issues in a 2017 study. Financial institutions engage in green banking when they actively address environmental sustainability factors in their day-to-day operations (Choubey & Sharma, 2022). Economic activity that takes into account both social and environmental factors is known as a sustainable economy (Nurohman, 2023). Despite the fact that the banking industry does not use any energy water, fuel, or power in its operations, it is impossible to ignore the growing problem of environmental deterioration (Liu et al., 2023) in this industry.

Not only that, but according to Article 10 of POJK No. 51 of 2017, commonly known as a Sustainability Report (Peraturan Otoritas Jasa Keuangan, 2017) all financial institutions are obligated to compile one. The purpose of this report is to hold financial institutions to account for their operational actions in relation to their impact on the economy, society, and the environment (Asfahaliza & Anggraeni, 2022). Banks' Sustainability Reports should be made publicly available as a practical means of differentiating between those that have and have not successfully implemented green banking practices. Financial institutions may face reprimands or written warnings if they fail to adhere to the rules (Asfahaliza & Anggraeni, 2022).

According to (Asfahaliza & Anggraeni, 2022) reports are a way for banks to be held responsible for their operational operations, which include their performance in the areas of economics, society, and the environment. (Handajani, 2019) states that although some banks have identified as green banks, there is still a lot of variety in how these banks actually execute and report on their sustainability efforts. By reviewing the information provided in their Sustainability Reports, one may determine which banks have adopted green banking practices and which have not. This case demonstrates that several banks will continue to fail to comply with OJK Regulation No. 51 of 2017 until 2024 (Peraturan Otoritas Jasa Keuangan, 2017).

Green banking presents both possibilities and threats to Indonesia's Islamic commercial banks, which are an integral element of the country's financial system. Sustainability reports, particularly those detailing environmental performance, may be used to track the adoption of green banking practices (PT. Bank Muamalat Indonesia Tbk, 2023) to (Jurnal, 2024) the banking industry is a driving force behind sustainable development and social responsibility. While good corporate governance has a positive effect on bottom lines, what really matters is how this eco-friendly banking strategy impacts Islamic commercial banks' bottom lines (Ali Fata & Arifin, 2024).

A large body of research has shown conflicting findings about the connection between environmentally conscious banking practices and the bottom line of financial institutions. A number of research have shown that green banking increases banks' profits. As an example, a study conducted by (Asfahaliza & Anggraeni, 2022) indicated that the ROA of commercial banks in Indonesia is positively impacted by several elements of green banking, including the quantity of ATM machines. Investment in eco-friendly buildings may boost operational efficiency, which in turn boosts profitability, according to this study. Daily green banking activities and GBP may boost bank profitability, according to study (Ratnasari et al., 2021).

However, other research have shown conflicting findings. Green financing does not significantly affect return on assets (ROA) (Nurmalia, 2021) according to study on Islamic banks in Indonesia conducted between 2016 and 2020 (Hasanah & Hariyono, 2022). Research conducted by Nurmalia in 2021 found that green banking and CAR had a partial and little impact on profit growth. The findings are in agreement with those of a recent study (Makomborero et al., 2023) that found that environmental sustainability reduces ROA.

These studies' conflicting findings highlight the multifaceted nature of the link between green banking and bottom-line outcomes, and the significance of taking into account contextual variables including bank type, study duration, and green banking indicators. Further study is needed, particularly in the context of Islamic Commercial Banks in Indonesia, due to the discrepancies in the outcomes of these studies.

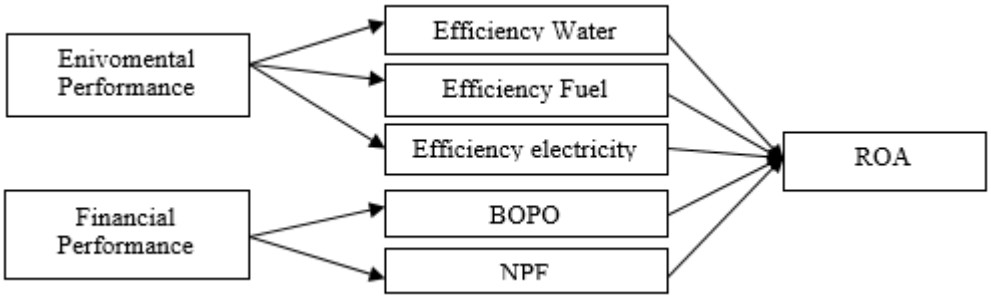
With that in mind, we set out to investigate Islamic commercial banks in Indonesia to determine the impact of green banking and financial performance on their bottom lines. The Islamic Commercial Banks' sustainability report, which delves further into the topic of environmental performance in the sections covering water efficiency, fuel, and energy, will include this research. An additional focus of this research will be the relationship between green banking practices and profitability as measured by financial performance metrics like the Capital Adequacy Ratio (CAR) and Non-Performing Financing (NPF). DKI Jakarta was used as the sample in this research.

B. LITERATURE REVIEW

Environmental Economics Theory

Economics of the environment, more specifically the Kuznets Environmental Curve (EKC). In the short term, economic expansion worsens environmental damage, but in the long run, it becomes a driving force in reducing environmental degradation, as shown by the curve model's construction. (Nikensari et al., 2019) Water, fuel oil, and electricity efficiency are key performance measures in this context when it comes to the environment. Electrical efficiency reveals the amount of energy utilised to generate output that aids in the reduction of greenhouse gas emissions, fuel oil efficiency reveals the amount of energy utilised to generate output that aids in the reduction of CO2 emissions and other pollutants that exacerbate air pollution and climate change, and water efficiency encompasses the reduction of waste and the increase of water utilisation across different sectors. The solution to the paradox of balancing economic development with environmental preservation lies in the interplay of environmental economic theory with the efficiency of water, fuel oil, and electricity.

Therefore, this study formulates the following framework and hypothesis:



C. METHOD

The research team behind this project hopes to learn how Islamic commercial banks in Indonesia do financially and how environmental sustainability affects their bottom line. This research used a descriptive methodology that is quantitative in nature. Financial institutions in Indonesia that practise Islamic banking are the subjects of this research. Islamic commercial banks' sustainability reports and annual reports covering the years 2019–2023, retrieved from the banks' respective websites, make up the study sample. Secondary data and purposeful sampling are the backbone of this research.

The study's dependent variable is Return on Assets (ROA), while the independent variables consist of green banking's environmental performance (as evaluated by water, fuel, and power consumption efficiency) and financial success (as measured by NPF and BOPO indicators). Multiple linear regression using a panel data technique was used for the data analysis. Three panel regression models—the Common Effect Model (CEM), the Fixed Effect Model (FEM), and the Random Effect Model (REM)—were examined, with data being processed using Eviews 10. We used the Chow, Hausman, and Lagrange Multiplier tests to choose the best model before we did the panel data regression analysis.

D. RESULTS AND DISCUSSION

t-test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	5.905224	0.708095	8.339594	0.0000
X1	-1.25E-06	3.88E-06	-0.322766	0.7488
X2	1.24E-06	2.15E-06	0.574381	0.5695
X3	0.000404	0.005810	0.069509	0.9450
X4	-0.060069	0.004978	-12.06736	0.0000
X5	-0.036835	0.040924	-0.900068	0.3744

The results of the hypothesis test on the t-test are as follows:

a. "The results of the t-test on water efficiency (X1) show a probability value of 0.7488 which is more than 0.05 So X1 has no effect on ROA (Y)"
b. "The results of the t-test on fuel efficiency (X2) show a prob value of 0.5695 which is more than 0.05 So X2 has no effect on ROA (Y)"
c. "The results of the t-test on electrical efficiency (X3) show a probability value of 0.9450 which is more than 0.05 So X3 has no effect on ROA (Y)"
d. "The results of the t-test on BOPO (X4) show a probability value of 0.000 less than 0.05 So X4 has an effect on ROA (Y)"
e. "The results of the t-test on NPF (X5) show a probability value of 0.3744 which is more than 0.05 So X5 has no effect on ROA (Y)"

F Test

R-squared	0.834711	Mean dependent variable	0.093074
Adjusted R-squared	0.810404	SD dependent var	1.652334
SE of regression	0.719470	Sum squared residual	17.59966
F-statistic	34.34009	Durbin-Watson stat	2.791977
Prob(F-statistic)	0.000000		

Hypothesis testing revealed that the independent variable had an effect on the dependent variable; specifically, the F test yielded an f-value of 34.34009 which is higher than the value 2.64146, and the f-statistic, a measure of probability significance, is 0.000000 lower than 0.05

Determinant Coefficient Test

R-squared	0.834711	Mean dependent variable	0.093074
Adjusted R-squared	0.810404	SD dependent var	1.652334
SE of regression	0.719470	Sum squared residual	17.59966
F-statistic	34.34009	Durbin-Watson stat	2.791977
Prob(F-statistic)	0.000000		

The determinant coefficient test, which presents the results of the hypothesis test, yields an adjusted R-squared value of 0.810404, or 81.0404%. With that out of the way, we can see that the independent variables X1, X2, X3, X4, and X5 account for 81.0404% of the variance in ROA for Islamic General Banks in Indonesia, while other factors account for the remaining 18.5956%.

E. CONCLUSION

During the period from 2019 to 2023, this research found no substantial influence of water, fuel, and power efficiency on the profitability of Islamic Commercial Banks (ROA) in Indonesia. Furthermore, ROA is significantly and negatively affected by BOPO, although NPF has no such impact. This research was able to explain 81.04% of the variability in ROA. Energy efficiency and sustainable resource management should be the primary areas of emphasis in the green banking strategy. To lessen BOPO and improve the openness of sustainability reports, Islamic commercial banks must also control expenses. It is suggested that researchers investigate other external variables and factors that could influence ROA in future studies. Additionally, additional studies should investigate the role of larger social and economic performance indicators, among other things, in determining bank profitability. External factors, like government policies and macroeconomic situations, must also be taken into account. The effect of green banking practices on bottom line results over the long run may be studied via longitudinal analysis.

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