International Journal of Business and Quality Research

https://e-journal.citakonsultindo.or.id/index.php/IJBQR
E-ISSN: 2985-9468

Analysis the Effect of Green Banking Implementation and Bank Efficiency on the Profitability of Sharia Commercial Banks in Indonesia

Ilen Marliani[1], Iman Waskito[2]

[1,2] University of Mataram, Mataram, Indonesia

Corresponding Author: ilenmarliani09@gmail.com

Abstract

This research aims to examine the effect of green banking and bank efficiency (BOPO) on profitability in Islamic commercial banks in Indonesia during the 2019-2023 period. The data used is secondary data from sharia commercial banks registered with the Financial Services Authority (OJK), with a sample consisting of 7 sharia banks selected through a purposive sampling method. Data analysis was carried out using the multiple regression method on panel data using Eviews 12 to understand the influence of the independent variable on the dependent variable. The research results show that partially, green banking has a significant positive effect on Return on Assets (ROA), while BOPO has a significant negative effect on ROA. Simultaneous testing found that the implementation of green banking as measured by GCR and BOPO together had a positive and significant influence on ROA. These findings indicate the importance of implementing green banking and operational efficiency in increasing the profitability of Islamic commercial banks in Indonesia.

Keywords: Green Banking, BOPO, Profitability.

INTRODUCTION

The issue of environmental quality degradation raises global concerns. The various environmental problems that occur are rooted in social and economic activities that trigger wider exploitation of natural resources. The consequences of these activities have the potential to increase carbon emissions which cause changes in climate patterns (Chen et al., 2022). If this continues, it is likely to become a serious problem for human health and welfare, ecosystems, food production, economic stability, and even impact on many aspects of life (Sachs et al., 2019). This phenomenon requires policies that can make a positive

Copyright to the author of some rights reserved This work is licensed under aCreative Commons Attribution-ShareAlike 4.0 International License.

International Journal of Business and Quality Research
https://e-journal.citakonsultindo.or.id/index.php/IJBQR
E-ISSN: 2985-9468

contribution to environmental sustainability, namely in the form of policies in implementing the concept of green finance as a form of social responsibility for an organization in sustainable development efforts (Sun et al., 2020).

Developing countries play an important role in reducing climate risks through implementing sustainable development. This shows its commitment to the global urgency agreement regarding international environmental standards and the initiative to realize the UN's Sustainable Development *Goals* (SDGS) by 2030 (Banking & Sbn, 2010). The principle of sustainable development is implemented with a comprehensive approach, not just as a strategy for running the business world, but to advance the economy by orienting towards three main aspects, namely profit, people, and planet known as the Triple Bottom Line (Istiowati, 2018).

In Indonesia, Sharia Bank is one of the growing Islamic business organizations. Sharia Banks as financial institutions, both directly and indirectly, in their operational activities can have a negative impact on the environment. Risks that may occur could have implications for core banking operations (Dikau & Volz, 2021). The environment can provide strong synergy in business activities. Thus, consideration of the banking system in realizing sustainable development encourages the financial industry, especially Sharia Banks, to create economic stability by prioritizing harmony between economic, social, and environmental aspects (POJK No. 51 /POJK.03/2017).

The rapid development of sharia banking requires it to be more responsive to stakeholders (Muslikhin et al., 2020) and able to encourage financial inclusion while still paying attention to sharia principles (Syaifuddin et al., 2022). This situation encourages Sharia Banks to improve their social performance. In this case, the Green Banking concept emerged to strengthen social responsibility so as to contribute to environmental sustainability. *Green Banking* can be translated as a strategy and paradigm established to integrate the fulfillment of sustainability principles in all aspects of its operations. As an intermediary institution that has a strategic role, banks have a responsibility to pay attention to environmental and social issues (Zheng et al., 2021).

Green Banking concept brings transformation that focuses on environmentally friendly banking practices. Implementation of this practice includes paperless programs, efforts to minimize carbon footprint, adopting the use of renewable energy, and other Go-Green programs. Banking is also responsible for distributing environmentally based financing, even though this is not directly related to its operational activities. However, by providing funding to projects that have an impact on environmental and social damage, banks are indirectly involved in environmental problems (Rahmayati et al., 2022). This matter no will give rise to impact negative to environment (Hossain & Kalince, 2014).

Copyright to the author of some rights reserved This work is licensed under aCreative Commons Attribution-ShareAlike 4.0 International License.

International Journal of Business and Quality Research
https://e-journal.citakonsultindo.or.id/index.php/IJBQR
E-ISSN: 2985-9468

The implementation of Green Banking in Indonesian banking is still voluntary, in contrast to foreign banking which has been disclosed in annual reports (Ayu & Anityasari, 2013) Therefore, banks need direction and policies that can encourage them to be more proactive in implementing sustainable initiatives. Green Banking practices are a consistent framework for measuring the progress of long-term business strategies towards sustainable development goals, so that banks that have declared themselves as Green Banking must be able to implement this concept as a Core Business Competence that is thoroughly optimized, especially for developing countries (Hanif et al., 2020).

Even though green banking has been implemented, there is still debate regarding its impact on banks' financial and non-financial performance. Karyani & Obrien (2020) found that green banking practices had a negative impact on bank profitability, while Rahmat et al. (2022) found that the green banking index had a positive effect on bank profitability.

This research is based on the importance of operational efficiency as measured through the ratio of operating expenses to operating income (BOPO) and how this affects the profitability of Islamic commercial banks. A high level of profitability reflects the bank's ability to manage resources efficiently. Legitimacy theory proposes that banks must operate in accordance with the values and norms accepted by society to maintain public support and trust. Meanwhile, stakeholder theory emphasizes that banks must consider the interests of all stakeholders, including customers, employees and the wider community, in an effort to increase profitability and create long-term value.

Based on background behind that has been outlined so researcher aim for give proof empirical about influence implementation of green banking, and bank efficiency towards profitability. Study This using green banking and bank efficiency (BOPO) as variable independent, whereas measured profitability with ROA as variable dependent.

LITERATURE ANALYSIS AND METHODOLOGY

Legitimacy Theory

Legitimacy can be interpreted as a general understanding or perception that the treatment of an entity is in line with expectations, is considered reasonable, and is consistent with the values, norms and definitions that apply in society (Ratnasari et al., 2021). Legitimacy theory emphasizes the importance of companies operating in line with the idea of a social contract that is accepted as legitimate to support the company's development and sustainability in the future. Companies continue to strive to gain, maintain, or even increase their legitimacy through social and environmental reporting (Mousa, et. al., 2015). By highlighting their commitment to the environment and publicizing environmentally friendly performance, banking companies create a positive image among stakeholders so that they

Copyright to the author of some rights reserved This work is licensed under aCreative Commons Attribution-ShareAlike 4.0 International License.

International Journal of Business and Quality Research
https://e-journal.citakonsultindo.or.id/index.php/IJBQR
E-ISSN: 2985-9468

are able to increase trust and support, as well as establishing strong relationships with the community including customers to ensure legitimacy in the market and fulfill their responsibilities towards the environment through carbon footprint reduction initiatives. in banking practice activities.

Stakeholder Theory

Stakeholder theory states that companies not only operate for personal interests, but must also provide benefits to stakeholders (Lestari, M.I., 2007). The stakeholders in question include employees, investors, customers, shareholders, suppliers, government, banks and the wider community. The existence of a company is very dependent on support from stakeholders. Therefore, companies must be able to build strong relationships with stakeholders. Strong relationships are based on trust, respect, and cooperation . Stakeholder satisfaction is influenced by company actions. In fulfilling corporate social responsibility, it must not only focus on generating maximum profits for shareholders, but must also pay attention to the interests of all parties associated with the company. This theory provides a complete framework for analyzing how company practices can influence the welfare of stakeholders and the sustainability of the company.

Green Banking

The topic of Green Banking has become an important highlight in the sustainable finance literature recently, especially in response to increasing concerns about the issue of changing global climate patterns. Green Banking according to the World Bank is defined as a financial institution that prioritizes sustainability in its business practices. Green Banking integrates banks to be more responsible for developing inclusive strategies that guarantee sustainable economic development (Sarma & Roy, 2021). This aims to encourage banking progress that innovates in sustainability by considering economic, social and environmental aspects.

According to the Green Banking Report (2014), in particular, green banking means that banking corporations are not only oriented towards financial responsibility in managing the business to generate maximum profit (profit) for shareholders, but must also focus on the responsibility of maintaining environmental sustainability (planet) and improve the social welfare of the community (people). The integration of these three pillars is called the triple bottom line-Line of Banking accountability. In context study Here, the green banking variable is measured with use Green Coin Ratings indicator (Asfahaliza & Anggraeni, 2022).

Copyright to the author of some rights reserved This work is licensed under aCreative Commons Attribution-ShareAlike 4.0 International License.

International Journal of Business and Quality Research
https://e-journal.citakonsultindo.or.id/index.php/IJBQR
E-ISSN: 2985-9468

The green banking concept emphasizes that banks must consider the impact of their policies on the environment. Nath et al. (2014) in the International Journal of Green Banking Practice outlines six indicators used to assess green banks through the Green Coin Rating (GCR), namely: Carbon Emissions, Green Rewards, Green Building, Reuse/Recycle/Refurbish, Paper Work or Paperless, and Green Investment.

Bank Efficiency

Bank efficiency is an important indicator that describes how well a bank manages the costs that arise in its operations, which is measured through the ratio of operating expenses to operating income. This ratio is used to assess management's ability to control operational costs in order to maximize income. BOPO is one of the ratios whose value changes are very closely watched, especially in the banking sector, because Bank Indonesia uses the size of this ratio as one of the criteria for determining the level of bank health (Yusuf, 2017).

The BOPO ratio functions as a tool to assess the level of operational efficiency. The smaller the BOPO ratio, the more efficient the bank is in managing its operational costs (Usman Harun, 2016). This efficiency is very crucial because an uncontrolled increase in operational costs can reduce profits before tax and ultimately reduce bank profitability, as measured by Return on Assets (ROA). Therefore, maintaining operational efficiency is not only important for a bank's sustainability, but also to ensure long-term profitability. The BOPO ratio is calculated using the following formula:

$$BOPO = \frac{Operating\ Expenses}{Operating\ Income}\ x\ 100\%$$

Profitability

According to Prasetyo (2015), profitability is a ratio to assess a company's ability to make a profit. By achieving profit targets, companies can improve the welfare of owners and employees, improve product quality, and make new investments. Profitability is also a ratio used to assess a company's ability to generate profits or the final results from its operations. This ratio provides an overview of management effectiveness, shown through profits obtained from sales and investment income. This profit is an indicator for stakeholders to assess management's performance in managing the company.

Profitability ratios are a tool for assessing a bank's ability to generate profits, as well as measuring management effectiveness. Profitability is important for business continuity, because companies need to generate profits to stay afloat. High profitability reflects good bank performance, increasing bank prosperity. One method of measuring profitability is Return on Assets (ROA), which shows a bank's ability to generate profits from the assets it owns. A high ROA indicates efficient use of assets to generate profits.

Copyright to the author of some rights reserved This work is licensed under aCreative Commons Attribution-ShareAlike 4.0 International License.

International Journal of Business and Quality Research
https://e-journal.citakonsultindo.or.id/index.php/IJBQR
E-ISSN: 2985-9468

ROA shows effectiveness company in produce profit with optimizing assets. If ROA increases, then the bank has used its assets optimally for obtain high profits. With so, increasingly good ratio profitability, then the Better describe ability its height acquisition profit company. The level of bank profitability No direct can describe health a bank. One of them is exists possible implementation of green banking influence profitability a bank. ROA is calculated using the formula:

$$Return\ on\ Asset = \frac{Net\ income}{Total\ Assets}\ 100\%$$

The Effect of Green Banking on Profitability

Deegan (2014:344) defines legitimacy theory as a theory which states that companies strive to ensure that their activities are accepted and considered legitimate by society. According to legitimacy theory, green banking has a positive impact on profitability as measured by Return on Assets (ROA). Sustainable and environmentally responsible practices increase a bank's legitimacy in the eyes of society and stakeholders. Banks that implement green banking demonstrate a commitment to operating in accordance with social and environmental responsibility expectations (Mousa, et. al., 2015). Adopting green banking helps banks gain public support and trust, which can improve their financial performance, including ROA. Investors and stakeholders are more likely to invest and collaborate with banks that are considered environmentally responsible, supporting profitability growth.

Based on stakeholder theory, green banking practices can increase bank profitability as measured by Return on Assets (ROA). The implementation of green banking reflects the bank's social and environmental responsibility towards stakeholders, such as the community and government. Banks that adopt environmentally friendly practices can gain greater trust and support, improve their image and expand their customer base.

According to Al & Masud (2020), implementation of environmentally friendly policies and actions by banks can increase profitability substantially. This is in line with research conducted by Asfahaliza & Anggraeni (2022), Pasha & Elbages (2022), Diah et al. (2019), and Rachman & Saudi (2021) stated that green banking practices have a positive and significant effect on the profitability of banks in Indonesia. With adopt green banking, banks can increase performance finance they. In addition, implementing green banking allows banks to introduce product new support sustainability, so increase profitability and power competitive.

H1: Green Banking has an effect to profitability of Islamic commercial banks.

Influence Bank Efficiency Against Profitability

Copyright to the author of some rights reserved This work is licensed under aCreative Commons Attribution-ShareAlike 4.0 International License.

International Journal of Business and Quality Research
https://e-journal.citakonsultindo.or.id/index.php/IJBQR
E-ISSN: 2985-9468

Efficiency is the optimal use of resources to achieve goals, including obtaining profits to maintain business continuity. A company is considered economically efficient if it is able to save production costs to obtain maximum profits. The BOPO ratio is used to measure bank operational efficiency. Based on Bank Indonesia provisions, banks can say efficient if ratio BOPO below 90%. Healthy bank provision from BI must has BOPO ≤ 93.52% (Bank Indonesia Circular Letter No.6/23/DPNP dated 31 May 2004) Oktaviantari & Wiagustini (2013) stated that banks with high levels of BOPO show inefficiency in carrying out their operational activities. A low BOPO ratio shows the bank's effectiveness in managing operational costs, and a decrease in this ratio is expected to increase income.

According to Chatarine & Lestari (2014), operational performance describes a bank's ability to manage its operational costs and income. Results of research conducted by Al Iqbal & Budiyanto (2020) show that BOPO has an effect in a way significant on ROA of Sharia Commercial Banks in Indonesia. BOPO plays a role important in banking for measure efficiency bank operations with compare cost operational to income operational.

H2: BOPO has an effect on the profitability of sharia commercial banks.

Based on hypothesis in study this, researcher elaborate framework conceptual study as following:

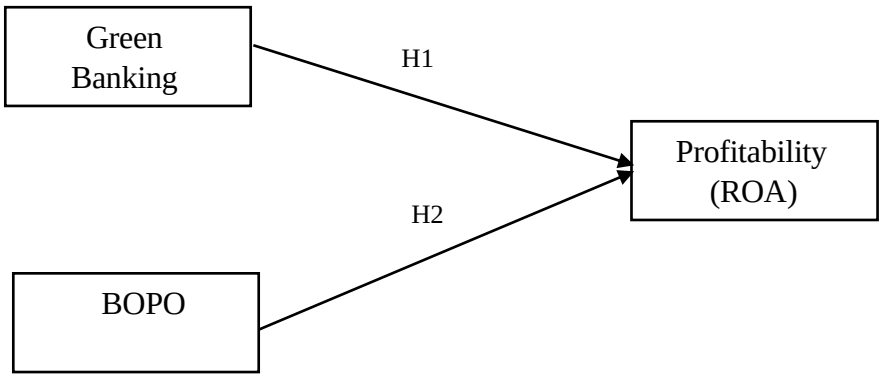


Figure 1: Conceptual Framework

Study This use approach quantitative with utilize the secondary data collected through technique documentation. Data obtained with access the official site Financial Services Authority (www.ojk.go.id) and the official website of each bank for get public data related to sharia commercial banks registered in the 2019-2023 period. Collected data form Green Coin Ratings (GCR) indicator, ratio Cost Operational to Income Operations (BOPO), and Return on Assets (ROA). Research sample chosen use purposive sampling technique with consider criteria certain relevant ones so that 7 sharia commercial banks were obtained

Copyright to the author of some rights reserved This work is licensed under aCreative Commons Attribution-ShareAlike 4.0 International License.

International Journal of Business and Quality Research
https://e-journal.citakonsultindo.or.id/index.php/IJBQR
E-ISSN: 2985-9468

from a total of 13 banks registered with the Financial Services Authority (OJK). Criteria special in study This as following:

Table 1 Sample Criteria

No.	Sample Criteria	Total
1	Registered sharia commercial bank at the Financial Services Authority (OJK) for the 2019-2023 period	13
2	Sharia commercial banks are not publishing report continuity in a way complete 2019-2023 period (green banking information)	(6)
	Amount Bank samples	7
	Amount 5 Year Observation (5 x 7)	35

Source: secondary data (processed)

In research Here, data analysis is carried out use method panel data regression that includes three approaches, namely the Common Effect Model (CEM), Fixed Effect Model (FEM), and Random Effect Model (REM). Election approach best will do through the Chow test, Hausman test, and Assumption test Classic. Additionally, analysis it also involves hypothesis testing. Data processing is carried out use device soft EViews 12. Eq deep panel data regression study This is as following:

$$ROAit = \beta 0i$$
$$t + \beta 1GBit + \beta 2BOPOit + eit$$

Description :

ROA $_{it}$ = Return on Assets
β0 = Constant
β1, β2 = Coefficient Value Regression
GB $_{it}$ = Green Banking
BOPO $_{it}$ = Operating Expenses to Operating Income Ratio
i = Cross Section
t = Time Series
e = disturbance error

RESEARCH AND RESULTS

Model tested moreover formerly for determine the most appropriate model used in analysis panel data regression. Implemented testing in study This includes Chow Test, Hausman Test, and Langrange Multiplier Test. The first test carried out is Uji Chow, which

Copyright to the author of some rights reserved This work is licensed under aCreative Commons Attribution-ShareAlike 4.0 International License.

International Journal of Business and Quality Research
https://e-journal.citakonsultindo.or.id/index.php/IJBQR
E-ISSN: 2985-9468

aims for choose between the CEM and FEM models is better for used furthermore. The output results from the Chow Test are obtained as following:

Table 2Chow Test Results

Effects Test	Statistics	df	Prob.
Cross-section F	14.215719	(6.26)	0.0000
Cross -section Chi-square	50.892857	6	0.0000

Source: Data processed with EViews 12, 2024

The results show that mark probability on cross-section chi-square < 0.05. Therefore that is, the selected model in this test is the FEM Model, which is later need next with the next test, namely the Hausman Test.

Table 3Hausman Test Results

Test Summary	Chi.Sq. Statistics	Chi-Sq. df	Prob.
Cross -section Chi-square	4.212387	2	0.1217

Source: Data processed with EViews 12,

This test is carried out to determine whether to use REM or FEM. If the Cross-section probability value is <0.05, the model chosen is FEM. Conversely, if the Cross-section probability value is > 0.05, then the model used is REM. The Hausman test results show that the Cross-section probability value is 0.1217, which is greater than alpha 0.05 (0.1217 > 0.05). Therefore, the model chosen is REM.

Based on the requirements of each test to determine the best model, after selecting the Random Effect Model (REM), the next step is to carry out the Lagrange Multiplier Test as the final stage in finding the right model for panel data analysis.

Table 4Lagrange Multiplier Test

	Test Hypothesis		
	Cross-section	Time	Both
Breusch-Pagan	22.69144	0.324255	23.01569
	(0.0000)	(0.5691)	(0.0000)
Honda	4.763553	-0.569434	2.965690

Copyright to the author of some rights reserved This work is licensed under aCreative Commons Attribution-ShareAlike 4.0 International License.

International Journal of Business and Quality Research
https://e-journal.citakonsultindo.or.id/index.php/IJBQR
E-ISSN: 2985-9468

	(0.0000)	(0.7155)	(0.0015)
King-Wu	4.763553	-0.569434	2.571654
	(0.0000)	(0.7155)	(0.0051)
Standardized Honda	5.932062	-0.285451	0.979008
	(0.0000)	(0.6124)	(0.1638)
Standardized Honda	5.932062	-0.285451	0.979008
	(0.0000)	(0.6124)	(0.1638)
Standardized King-Wu	5.932062	-0.285451	0.532980
	(0.0000)	(0.6124)	(0.2970)
Gourieroux, et al.	--	--	22.69144
			(0.0000)

Based on the output results above, the Both value is 0.0000 < 0.05, so the Random Effect Model (REM) is selected. Of the three tests that have been done, can concluded that REM is the most appropriate model for panel data analysis compared with the Fixed Effect Model (FEM) and the Common Effect Model (CEM).

Test Assumptions Classic

Normality test

Normality test aim For determine whether the data is normally distributed or not normal (Maulana, 2020) . In research in this case, the residual normality test uses the Jarque-Bera (JB) test. test this determine is variable dependent and independent are normally distributed. If the probability JB < 0.05, the data is declared No normally distributed. And if

Copyright to the author of some rights reserved This work is licensed under aCreative Commons Attribution-ShareAlike 4.0 International License.

International Journal of Business and Quality Research
https://e-journal.citakonsultindo.or.id/index.php/IJBQR
E-ISSN: 2985-9468

probability JB > 0.05, data is normally distributed. The results show JB probability is 0.064529 > 0.05, so the data is considered normally distributed.

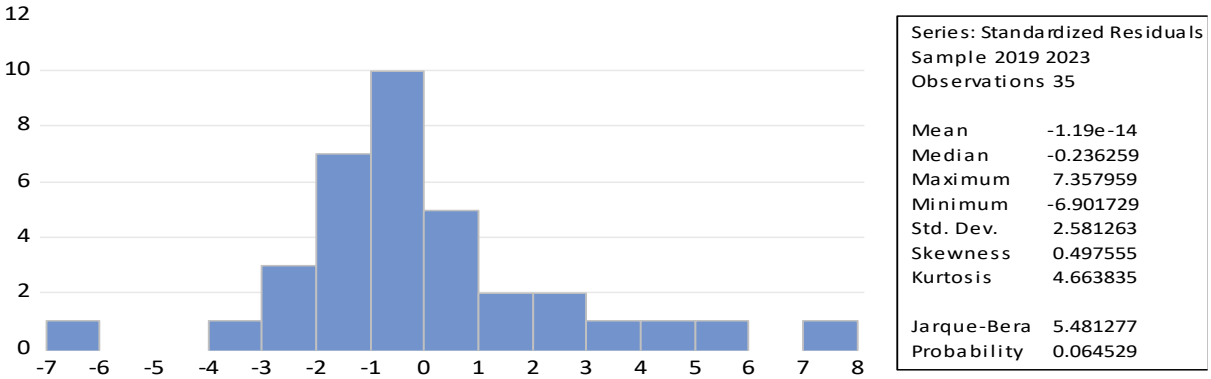


Figure 1Normality test with the Jarque-Bera test

Multicollinearity Test

Test this determine there is connection significant between variable free in the regression model. According to Ghozali (2013), multicollinearity happen If VIF value > 10. Multicollinearity test results show that No There is symptom multicollinearity between variable independent Because VIF value < 10.

Table 5Multicollinearity Test

Variables	Coefficient of Variance	Uncen-tered VIF	Cen-tered VIF
GB	0.001610	12.91110	1.00238
BOPO	2.59E-05	1.304396	1.00238
C	8.695090	13.15624	NA

Source: Data processed with EViews 12, 2024

Hypothesis Test

Here are the panel regression results that have been analyzed using the Random Effect Model (REM). This analysis was conducted to identify the relationships between the variables in the study that uses panel data.

Copyright to the author of some rights reserved This work is licensed under aCreative Commons Attribution-ShareAlike 4.0 International License.

International Journal of Business and Quality Research
https://e-journal.citakonsultindo.or.id/index.php/IJBQR
E-ISSN: 2985-9468

Table 6Random Effect Model (REM) Panel Regression Output

Variables	Coefficient	Std. Error	t-Statistics	Prob.
GB	-6.512368	4.409204	-1.476994	0.1495
BOPO	0.141788	0.061168	2.318014	0.0270
C	-0.025653	0.006619	-3.875452	0.0005
Effects Specification				
			S.D	Rho
Random cross-section			2.063114	0.6971
Idiosyncratic random			1.360014	0.3029
Effects Specification				
R-squared	0.420413	Mean dependent var		0.322951
Adjusted R-squared	0.384189	SD dependent var		1.791910
SE of regression	1.406177	Sum squared resid		63.27467
F-statistic	11.60586	Durbin-Watson stat		2.123530
Prob(F-statistic)	0.000162			

Source: Data processed with EViews 12, 2024

Based on results analysis statistics carried out using e-views version 12, a regression model was obtained as following:

ROA = 2.29231033832 + 0.0154283853103*GB - 0.0252918755597*BOPO

Partial Test (T Test)

In table the results of the selected Random Effect (REM) model, the Green Banking variable has mark probability of 0.0270. This value smaller compared to with mark The significance used is 5 % (0.0270 < 0.05). Therefore that, you can conclude that the Green Banking (GB) variable has an effect positive and significant to ROA.

Based on table 6, variables free the second, namely BOPO, has mark probability of 0.0005. When compared with level error 5% (0.05), value 0.0005 more small from 0.05.

Copyright to the author of some rights reserved This work is licensed under aCreative Commons Attribution-ShareAlike 4.0 International License.

International Journal of Business and Quality Research
https://e-journal.citakonsultindo.or.id/index.php/IJBQR
E-ISSN: 2985-9468

Therefore that, you can conlude the variable independent the second, namely BOPO, has an effect negatif significant to ROA

Simultaneous Test (F Test)

Based on table the output results of the Random Effect (REM) model were obtained mark probability F- statistics amounting to 0.000162. This value smaller compared to with level error 5% (0.000162 < 0.05). Therefore that, you can conclude that whole variable independent, namely Green Banking (GB) and BOPO, respectively together own influence significant to ROA variable. Based on table the output results of the Random Effect (REM) model were obtained mark probability F- statistics amounting to 0.000162. This value smaller compared to with level error 5% (0.05). Therefore that, you can conclude that whole variable independent, namely Green Banking (GB) and BOPO, respectively together own influence significant to ROA variable.

Analysis of Coefficient Test Results Determination (R^2)

Test result obtained mark Adjusted R Square is 0.384 or 38.4% which shows that variable free Green Banking (GB) and BOPO available explain ROA variable, so concluded that donation influence variable independent to variable dependent in a way simultaneous (simultaneous) of 38.4%. whereas the rest 61.6 % were influenced other variables outside model used in research This.

The Effect of Green Banking on Profitability

The first independent variable is Green Banking. Based on the calculation results, the Green Banking value is 0.0270 < 0.05, so it can be concluded that the variable X1 (Green Banking) has a significant influence on ROA. These results indicate that hypothesis 1 is accepted. The influence provided is positive with a Green Banking coefficient value of 0.1418.

Green Banking has an important role in increasing Return on Assets (ROA). A significance value of less than 0.05 indicates that there is a real relationship between the implementation of Green Banking and an increase in ROA. A positive coefficient of 0.1418 indicates that every increase in Green Banking practices has the potential to increase the company's ROA. In other words, companies that adopt Green Banking practices tend to have better asset performance, which in turn can increase company profitability. Study This support study previously conducted by Al & Masud (2020) , and Badri et al. (2022) who found that there is a positive relationship between green banking and profitability (ROA).

Influence Bank Efficiency Against Profitability

Copyright to the author of some rights reserved This work is licensed under aCreative Commons Attribution-ShareAlike 4.0 International License.

International Journal of Business and Quality Research
https://e-journal.citakonsultindo.or.id/index.php/IJBQR
E-ISSN: 2985-9468

Based on the results hypothesis, known results testing 0.0005 < 0.05 show that variable This own influence significantly negative on return on assets (ROA). That means, more and more tall BOPO ratio (cost operational to income operational), increasingly low bank ROA. This matter show that enhancement cost operational without followed enhancement income operational result Bank efficiency decreases. His height cost operational signify that the bank has not capable operate its operations with efficient, which has an impact on reducing profitability. The coefficient negative of -0.0257 indicates that every enhancement of One unit in the BOPO ratio will reduce ROA by 0.0257. In other words, more and more tall cost operational relatively to income operational, increasingly low bank profitability.

Management income operational acceptance is very important Because cost operational related direct with activity banking business, such as cost interest, foreign exchange charges, fees power work, depreciation, and costs other. With low BOPO ratio, banks can minimize risk operational and improving its efficiency. Study This support findings previously by Al Iqbal & Budiyanto (2020) which shows that BOPO has influence significant on ROA of Sharia Commercial Banks in Indonesia. Apart from that, Siregar (2021) and Ratnasari et al. (2021).

CONCLUSION AND RECOMMENDATIONS

Analysis This show exists linkages between implementation of Green Banking and BOPO ratio with Return on Assets (ROA). The implementation of Green Banking has an effect positive and significant to ROA, which means the Better Green Banking practices are being implemented, increasingly tall level profitability company. On the contrary, the BOPO ratio shows influence negative and significant to ROA, indicates that enhancement cost operational that is not accompanied by an increase income operational cause bank efficiency decreases and has an impact negative on profitability. Study This in line with findings previously about Green Banking impact and efficiency operational to performance finance company banking. By overall, good implementation of Green Banking as well as BOPO ratio significant influence bank profitability.

This study has several limitations that need to be noted. First, the research only uses the Green Banking variable and the BOPO ratio as independent variables, so it does not include other factors that might influence ROA. Future research is recommended to consider additional variables. Second, this study uses data from a specific time period, so it may not reflect dynamic changes in the banking industry. Future research is expected to use long-term data and involve various types of banks to obtain more general results.

Copyright to the author of some rights reserved This work is licensed under aCreative Commons Attribution-ShareAlike 4.0 International License.

REFERENCES

Al Iqbal, M. H., & Budiyanto, I. (2020). Analisis Pengaruh Kewajiban Penyediaan Modal Minimum (KPMM), Beban Operasional Pendapatan Operasional (BOPO), Financing To Deposit Ratio (FDR), dan Inflasi Terhadap Return On Asset (ROA) Pada Bank Umum Syariah di Indonesia Periode 2016-2019. *MALIA: Journal of Islamic Banking and Finance*, *4*(1), 1. https://doi.org/10.21043/malia.v4i1.6887

Al, M. M. A., & Masud, R. (2020). Green Banking Practices and Profitability of Commercial Banks in Bangladesh. IOSR Journal of Economics and Finance, 11(5), 10–14. https://doi.org/10.9790/5933-1105021014

Asfahaliza, A. N. P., & Anggraeni, P. W. (2022). Pengaruh Penerapan Green Banking Terhadap Profitabilitas Perbankan Di Indonesia Periode 2016-2021. Contemporary Studies in Economic, 1(2), 298–311. http://dx.doi.org/10.21776/csefb.2022.01.2.10.

Ayu, A. N. F., & Anityasari, M. (2013). Analisis Implementasi Green Banking Pada PT. Bank X (Persero) TBK. Jurnal Tekhnik Industri FTI ITS, 1(1), 1–6.

Badri, R. E., Susanti, & Putri, A. S. (2022). Factors Affecting Green Banking Implementation In Indonesia. International Conference on Information Technology and Business (ICITB) 8, 32, 7–13.

Banking, S., & Sbn, N. (2010). Global progress report, 2010. Current History, 109(723), 3–10. https://doi.org/10.1525/curh.2010.109.723.3

Chatarine, A., & Lestari, V. P. (2014). Pengaruh Kualitas Aktiva Produktif, Bopo Terhadap Roa Dan Car Pada Bpr Kabupaten. Doctoral Dissertation, Udayana University, 561–577.

Chen, J., Siddik, A. B., Zheng, G.-W., Masukujjaman, M., & Bekhzod, S. (2022). The Effect of Green Banking Practices on Banks ' Environmental. Energies, 15(1), 1–22.

Deegan, C. (n.d.). Financial Accounting Theory. McGraw-Hill Education.

Diah, Aryani, D. N., & Prasetyo, I. B. (2019). Analisis Implementasi Green Banking Dan Kinerja Keuangan Terhadap Profitabilitas. Jurnal Bisnis, Manajemen an Infromatika, 1(2), 141–161.

Dikau, S., & Volz, U. (2021). Central bank mandates, sustainability objectives and the promotion of green finance. Ecological Economics, 184(March), 107022. https://doi.org/10.1016/j.ecolecon.2021.107022

Ghozali, I. (2013). Aplikasi Analisis Multivariate Dengan Program SPSS. Semarang. Badan Penerbit Universitas Diponegoro.

Hanif, Wahyu Ningsih, N., & Iqbal, F. (2020). Green Banking Terhadap Profitabilitas Bank Umum Syariah Di Indonesia. Jurnal Ilmiah Keuangan Dan Perbankan, 3(2), 86–99.

Hossain Sharif, & Kalince Ahmed Tanvir. (2014). Green Banking Nexus Banks' Performance. Swiss Journal of Research in Business and Social Sciences, 1(3), 1–16.

Copyright to the author of some rights reserved This work is licensed under aCreative Commons Attribution-ShareAlike 4.0 International License.

Istiowati, S. I. (2018). Analisis Strategi Pembiayaan Dalam Upaya Optimalisasi Konsep Green Finance (Studi Kasus Pada Bank Rakyat Indonesia Syariah Kantor Cabang Malang). Jurnal Ilmu Manajemen Advantage, 2(1), 223–238. https://doi.org/10.30741/adv.v2i1.285

Karyani, E., & Obrien, V. V. (2020). Green Banking and Performance: The Role of Foreign and Public Ownership. Jurnal Dinamika Akuntansi Dan Bisnis, 7(2), 221–234. https://doi.org/10.24815/jdab.v7i2.17150

Lestari, M.I., sugiharto. (2007). Kinerja Bank Devisa Dan Non Devisa Dan Faktor-Faktor Yang Mempengaruhinya. Proceeding PESAT (Psikologi, Ekonomi, Sastra, Arsitek & Sipil).

Maulana, I. (2020). Analisis Pengaruh Dewan Komisaris Independen, Kepemilikan Manajerial Dan Kepemilikan Institusional Terhadap Kinerja Perusahaan Jasa Keuangan Di Indonesia. Jurnal REKSA: Rekayasa Keuangan, Syariah Dan Audit, 7(1), 11. https://doi.org/10.12928/j.reksa.v7i1.2455

Mousa, et. al., G. A. (2015). Legitimacy Theory and Environmental Practices: Short Notes. International Journal of Business and Statistical Analysis, 2(1), 41–53. https://doi.org/10.12785/ijbsa/020104

Muslikhin, M., Kinanti, R. A., Muhtadi, R., & Fudholi, M. (2020). Pemeriksaan Empiris Pada Pengaruh Kinerja Sosial Terhadap Profitabilitas Di Bank Syariah. Ulumuna: Jurnal Studi Keislaman, 6(1), 72–84. https://doi.org/10.36420/ju.v6i1.3956

Nath, V., Nayak, N., & Goel, A. (2014). Green Banking Practices. Impact Journal, 2(4), 45–62.

Oktaviantari, L., & Wiagustini, N. (2013). Pengaruh Tingkat Risiko Perbankan Terhadap Profitabilitas Pada Bpr Di Kabupaten Badung. E-Jurnal Manajemen Universitas Udayana, 2(12), 244770.

Pasha, R., & Elbages, B. (2022). Green Banking Practices: the Impact of Internet Banking on Bank Profitability in Egypt. Corporate and Business Strategy Review, 3(2), 65–75. https://doi.org/10.22495/cbsrv3i2art6

POJK No. 51 /POJK.03/2017. (2017). POJK No. 51 /POJK.03/2017 tentang penerapan keuangan berkelanjutan bagi lembaga jasa keuangan, emiten, dan perusahaan publik. 1–15.

Prasetyo, W. (2015). Analisis Faktor-Faktor Yang Mempengaruhi Profitabilitas Perbankan. Jurnal Ekonomi Dan Pembangunan, 7(1), 46–54. https://doi.org/10.37859/jae.v10i1.1872

Rachman, A. A., & Saudi, M. H. (2021). Green Banking And Profitability (bank registered on the sri kehati index). Turkish Journal of Computer and Mathematics Education, 12(8), 473–486.

Rahmat Arapi, Baso Amang, A. S. (2022). Analysis And Spatial Relationship Of Economic

Copyright to the author of some rights reserved This work is licensed under aCreative Commons Attribution-ShareAlike 4.0 International License.

Growth Between District / City In South Sulawesi Province. Jurnal Ekonomi Dan Bisnis, 11(2).

Rahmayati, R., Mujiatun, S., & Sari, M. (2022). Islamic Green Banking At Bank Pembangunan Daerah In Indonesia. Indonesian Interdisciplinary Journal of Sharia Economics (IIJSE), 5(1), 74–93. https://doi.org/10.31538/iijse.v5i1.1850

Ratnasari, T., Surwanti, A., & Pribadi, F. (2021). Implementation of Green Banking and Financial Performance on Commercial Banks in Indonesia (pp. 323–336). https://doi.org/10.1108/S1571-038620210000028018

Sachs, J. D., Woo, W. T., Yoshino, N., & Taghizadeh-Hesary, F. (2019). Why Is Green Finance Important? Asian Development Bank Institute. Institute of Sciences. ADBI Working Paper Series, 917. https://www.adb.org/publications/why-green-finance-important

Sarma, P., & Roy, A. (2021). A Scientometric analysis of literature on Green Banking (1995-March 2019). Journal of Sustainable Finance & Investment, 11(2), 143–162. https://doi.org/10.1080/20430795.2020.1711500

Sun, H., Rabbani, M. R., Ahmad, N., Sial, M. S., Guping, C., Zia-Ud-din, M., & Fu, Q. (2020). Csr, co-creation and green consumer loyalty: Are green banking initiatives important? A moderated mediation approach from an emerging economy. Sustainability (Switzerland), 12(24), 1–22. https://doi.org/10.3390/su122410688

Syaifuddin, Andrie Yuswanto, & Hariri, A. (2022). The Influence of Brand Image, Awareness and Customer Satisfaction in Increasing Loaylity And Choosing Islamic Banking In Indonesia. East Asian Journal of Multidisciplinary Research, 1(4), 671–690. https://doi.org/10.55927/eajmr.v1i4.400

Usman Harun. (2016). Pengaruh Ratio-Ratio Keuangan CAR, LDR, NIM, BOPO, NPL Terhadap ROA. Jurnal Riset Bisnis Dan Manajemen, 4(1), 67–82.

Yusuf, M. (2017). Dampak Indikator Rasio Keuangan terhadap Profitabilitas Bank Umum Syariah di Indonesia. Jurnal Keuangan Dan Perbankan, 13(2), 141. https://doi.org/10.35384/jkp.v13i2.53

Zheng, G. W., Siddik, A. B., Masukujjaman, M., & Fatema, N. (2021). Factors affecting the sustainability performance of financial institutions in Bangladesh: The role of green finance. Sustainability (Switzerland), 13(18), 1–27. https://doi.org/10.3390/su131810165

Copyright to the author of some rights reserved This work is licensed under aCreative Commons Attribution-ShareAlike 4.0 International License.