Green Banking and Liquidity: Strategies for Optimising Islamic Bank Profitability

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Article Info:	Abstract
	Environmental challenges such as climate change and natural disasters are on the rise. One of the factors contributing to this problem is environmentally unfriendly banking. Therefore, green banking is a concept that focuses on reducing carbon emissions both inside and outside the bank. The purpose of this study was to analyse the effect of green banking and liquidity on the profitability of Islamic commercial banks. The population of this study is the Islamic banks registered with the Financial Services Authority (OJK) for the period 2018-2022. The sampling method used was purposive sampling, with a total sample of 11 Islamic commercial banks. The data analysis technique used in this study is multivariate regression analysis using Eviews 12 statistical tool. The results of this study indicate that green banking has a negative and insignificant effect on the profitability of Islamic commercial banks. And liquidity has no effect on the profitability of Islamic commercial banks..

INTRODUCTION

In general, the objective of any business is profit, both in the form of short term profit and long term profit. Likewise for the banking sector, banks as financial institutions have a role in improving the economy and maintaining the economic stability of a country, the main goal of banking is to make maximum profit or profit. Profitability ratio is a ratio commonly used to measure the bank's ability to make profit. The tool commonly used to measure the effectiveness of management performance is the profitability ratio. Healthy financial conditions of banks can

be seen from the profitability ratio. In this study, return on assets (ROA) is used as the profitability ratio.

Based on Islamic banking statistical data, Islamic banking ROA has fluctuated over the past five years. In 2019, Islamic banking ROA was 1.73%, up from 1.28% in the previous year. In 2020, the ROA decreased to 1.4% and increased to 1.55% in 2020. In 2022, Islamic banking ROA will be 2%.

Figure 1. ROA of Islamic commercial banks
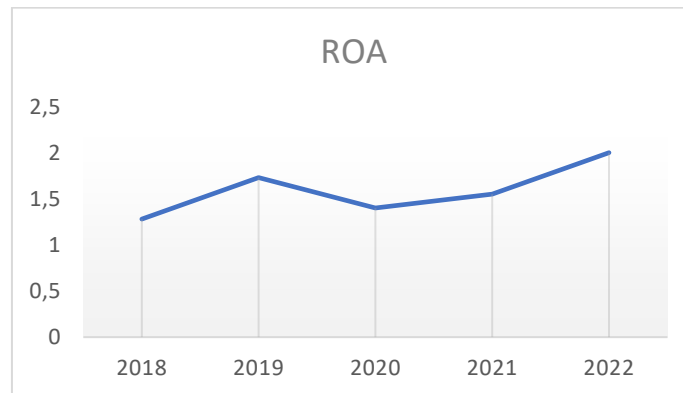

Source: OJK (processed data, 2023)

When companies focus on achieving the highest possible profit with a greedy business paradigm, justifying any means to achieve it, it can lead to environmental damage, socio-economic crises, and excessive profit taking from natural resources (Lako, 2015). To address these issues, the Indonesian government has developed a sustainable development approach that considers three elements: profit, people and the earth (Lako, 2015). This approach in banking is known as Green Banking, the implementation of which is implicitly stated in PBI No. 8/21/PBI/2006 and Bank Indonesia Circular No. 8/22/DPbS (Febiola et al., 2023). Although the environmental impact of banking operations is not as severe as that of the industrial sector, banking still plays an important role in preserving the environment (Rachmawati & Jayanti, 2023).

Islamic banks not only prioritise business, but also apply Shariah principles, which include the concept of green banking. One of the main principles of green banking is to improve the banking sector's risk management capabilities, especially those related to the environment. It also encourages banks to further strengthen the portfolio of environmentally friendly financing, such as investments in the renewable energy sector and organic agriculture (Febiola et al., 2023). In the context of Islamic banking, this can also be referred to as Corporate Social Responsibility (CSR), which means corporate social responsibility in the form of sustainability finance. This concept is a long-term business strategy that aims not only to make a profit, but also to contribute to the empowerment and preservation of the environment in a sustainable manner (Hanif et al., 2020). The level of implementation of green banking in a bank can be seen from the annual report published by the bank.

Islamic commercial banks are financial institutions that prioritise sustainability in their business practices. The concept of green banking is based on welfare, economic and social aspect (Hanif et al., 2020). The idea of green banking covers two main aspects: lending and operations. Banks lend to businesses, taking into account the environmental impact of their actions (Karyani & Obrien, 2020). The bank's reputation will be enhanced and it will attract new customers who are increasingly interested in banks that pay attention to the concept of green banking in formulating their operational policies (Asfahaliza & Anggraeni, 2022).

Article 10 of POJK No. 51 of 2017 states that banks are required to prepare a sustainability report. The report is a form of the bank's responsibility in its operational activities related to performance in the economic, social and environmental fields (Asfahaliza & Anggraeni, 2022).

Figure 2. Development of sustainability report publications
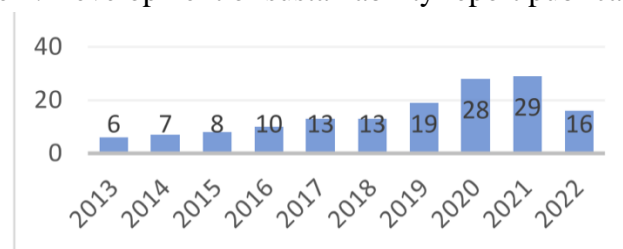
Source : Mahardika & Fitanto (2023)

Figure 2 shows that in 2013 only 6 banks published sustainability reports, with the highest increase in 2021 of 29 banks, but in 2022 only 16 banks published on time.

According to Hanif et al., (2020) dan Siahaan et al., (2021) green banking has a positive impact on the profitability of Islamic commercial banks in Indonesia. Likewise, research states that green banking projected by GBDI, number of ATM units and frequency of M-banking transactions has a positive and significant effect on profitability. Meanwhile, the research Mustika et al., (2023) states that Green Banking has no effect on ROA. Research Mahardika & Fitanto 2023) indicates that green banking has a negative effect on ROA.

One of the factors that can affect a bank's financial performance is liquidity risk, where banking activities that are closely related to high lending are vulnerable to this risk. Liquidity risk is the inability of a bank to meet short-term obligations when required due to lack of liquidity (Wibowo et al., 2020). This can result in the bank failing to meet its obligations. Liquidity management is a complex issue in banking. Liquidity management is difficult because most of the funds managed by banks come from the public and are short-term in nature and can be withdrawn at any time. Therefore, banks need to accurately calculate their liquidity needs for a given period of time. If the bank can manage liquidity well, the profitability of the business will also increase, creating positive value for the bank (Muarif et al., 2021).

One way of assessing a bank's liquidity is to analyse its financing deposit ratio (FDR). This ratio shows how well the bank can provide funds to its debtors using its own capital and funds raised from the public. In general, the safe limit of a bank's FDR should be in the range of 90-

100%, but according to central bank regulations, the safe limit of the FDR should not exceed 110% (13). In the FDR Islamic banking statistics data on BUS are as follows:

Figure 3. FDR of Islamic commercial banks
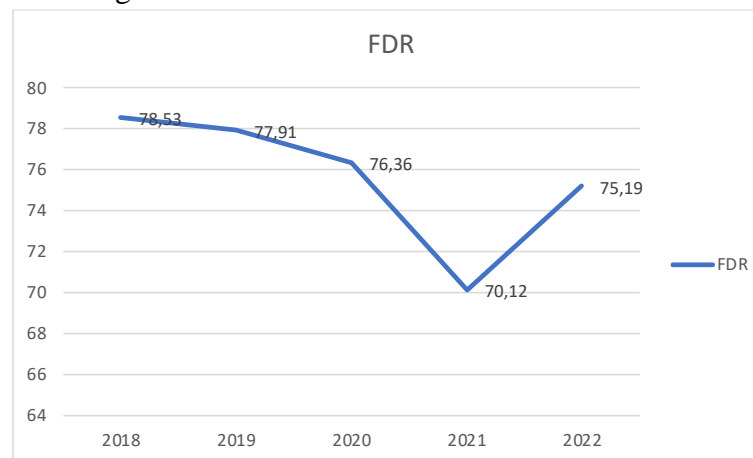
Source: OJK (processed data, 2023)

Based on Figure 3, it can be seen that the FDR of Islamic banks has not reached the ideal range, where Islamic banks will be effective in supporting high returns, if it is in the range of 95% - 98% (Muqoddam, 2014). The FDR is the ratio between the total amount of loans granted by the bank and the funds received by the bank (Muarif et al., 2021). The higher the FDR ratio, the better the bank's ability to perform its intermediation function. Conversely, if this ratio is lower, the bank is not able to perform its intermediation function optimally. On the other hand, the higher this ratio is, the more it indicates that bank liquidity is decreasing, as more funds are directed to lending/financing. Conversely, the lower the ratio, the more liquid the bank.

LITERATURE REVIEW

a. Green Banking

The Bank of Indonesia defines green banking as a form of banking that acts in accordance with the principles of sustainability in the conduct of its business. Green banking focuses on the responsibility to maintain the balance of the ecosystem and not only on achieving maximum profit. Green banking focuses on the responsibility of maintaining the balance of the ecosystem, rather than simply achieving maximum profit, and involves the integration of four key considerations - natural, human, economic and social - into business principles which take into account the safety and sustainability of the environment and human life. (Mustika et al., 2023).

From a broader and longer-term perspective, Bank Indonesia's expectation is that the implementation of green banking will have a positive impact on fiscal and monetary strengthening efforts. This is reflected in declining imports of oil and agricultural products due to increased renewable energy supply, efficient energy use by industry, and banking sector support for organic agriculture across Indonesia. (Hanif et al., 2020).

The basic concept of green banking is a strategy to achieve profits through a business approach that takes into account environmental sustainability (Lako, 2015). According to the

World Bank, green banking is a financial institution that prioritises sustainable business practices. This concept is based on four important aspects of life, namely nature, welfare, economy and society. A 'green' bank will integrate these four aspects into its business principles that take care of the ecosystem and the quality of human life. (Lako, 2015).

According to Lako (2015), environmentally friendly business practices are the concept of green banking. Green banking means that banking companies should not only focus on financial responsibility, i.e. managing their business as well as possible to generate the greatest possible profit for shareholders, but should also focus on efforts to sustain the universe (planet) and social welfare (people). The bottom line of banking accountability is a combination of these three pillars (Lako, 2015). In analysing green banking, the green banking disclosure index developed by Bose et al., (2018) can be used. *Green banking in this study is measured using the green banking disclosure index (GBDI), with a total index of 21 items disclosed by* Handajani (2019). The green banking disclosure indicator in this study is calculated by summing the number of green banking index items disclosed in the annual report using the following formula:

$$GBDI = \frac{number\ of\ GB\ disclosures}{total\ GB\ indicators} X\ 100\% \qquad (1)$$

b. Liquidity

Liquidity is used as an indicator to assess a bank's ability to meet its short-term obligations from available sources of funds, such as savings, deposits and short-term liabilities. Liquidity management is very important in the management of bank funds. A bank's liquidity level reflects the extent to which a bank can manage its funds properly. Banks can manage their funds well to avoid excess or shortage and to maintain a planned and proper financial balance.

The liquidity ratio is generally the ratio of current assets to current liabilities (Frida, 2020). Liquidity is a measure of the availability of cash and assets that can be easily converted into cash. It is important for banks to have a high availability of liquidity, which can be achieved by having liquid assets, as well as the ability to obtain funds quickly from other sources to meet financial obligations or commitments on time (Rachmawati & Jayanti, 2023).

Liquidity is one of the determining factors for the health of Islamic banking in paying off the funds of its partners who wish to withdraw the invested funds using the FDR ratio. FDR is the total amount of funds disbursed to customers of Islamic commercial banks. The FDR ratio is a comparison to determine the ability of Islamic banks to make payments or handle the withdrawal of funds by customers whose funds come from the distribution of funds provided, which makes it a source of liquidity (Wahyudi, 2020). FDR is measured using the following formula (Alaamsah et al., 2021):

$$FDR = \frac{Total\ Financing}{Third\ Party\ Funds} X\ 100\% \qquad (2)$$

c. Profitability

The profitability ratio, more commonly known as return on equity in the banking world, is used to measure the profit made by the bank. This ratio is also a tool to assess the reliability and efficiency of a bank in increasing earnings in each period. The assessment can be done through two ratios: return on assets, which calculates the total profit from total assets, and the ratio of operating expenses to operating income (Frida, 2020). Several techniques can be used to measure

profitability, such as return on equity (ROE), return on assets (ROA), and net profit margin (NPM) (Mahardika & Fitanto, 2023). In this study, profitability is measured by ROA. The following formula is used to measure ROA (Alaamsah et al., 2021):

$$\text{ROA} = \frac{\text{EBT}}{\text{Total asset}} \times 100\% \tag{3}$$

1.1 Hypothesis development

The implementation of Green Banking not only prioritises the environment but also considers the sustainability of the bank's own profitability. Therefore, banks should carry out impact analyses of potential borrowers' projects, taking into account environmental aspects (Handajani et al., 2019). Implementing and prioritising green banking practices will enhance the bank's reputation and ultimately have a positive impact on sustainable financial performance (Qudriyah et al., 2021). The results of the study Mahardika & Fitanto (2023) and Asfahaliza & Anggraeni (2022) found that the implementation of green banking has a positive impact on profitability. Similarly, Hanif et al., (2020) research findings indicate that green banking has an impact on the profitability of Islamic commercial banks. Meanwhile, Rachmawati & Jayanti (2023) the research states that the disclosure of green banking has no significant effect on profitability.

H1 : Green banking has a positive effect on the profitability of Islamic commercial banks.

One way to assess the liquidity ratio is to calculate FDR, which indicates how efficient the bank is in providing funds to its borrowers based on capital and funds raised from the public. FDR (Financing to Deposit Ratio) is the ratio between the financing provided by banks and the funds collected from third parties. The results of the study Wibowo et al., (2020) indicate that liquidity risk has no impact on financial performance. Similarly, Wahyudi (2020) and Alaamsah et al., (2021) it was found that liquidity has no effect on ROA. Muarif et al., (2021) It was found that liquidity has a negative and insignificant effect on profitability of Islamic commercial banks. While, Mukaromah & Supriono (2020) stating that liquidity has a positive and insignificant effect on profitability.

H2   : Liquidity affects the profitability of Islamic commercial banks.

Based on the development of the hypothesis, the research framework can be illustrated as follows:

Figure 4. Framework
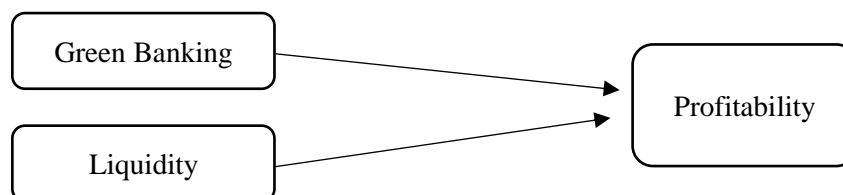
RESEARCH METHODS

2.1 Population, sample, and sampling technique

The data used in this study is secondary data in the form of annual financial reports of Islamic banks. The method used is to use multiple regression statistics with secondary data. This method is used because researchers are trying to find out how much influence between ROA, CAR and NPF on the market share of Islamic banking with GCG as a moderating variable. The population of this study is Islamic commercial banks registered with the Financial Services Authority (OJK) for the period 2018-2022. The population list used is 13 Islamic commercial banks.

The sampling method used is purposive sampling, which is sampling based on the following criteria:
1. Islamic commercial banks registered with the OJK from 2018 to 2022.
2. Islamic commercial banks that regularly publish financial statements from 2018 to 2022.
3. Islamic commercial banks whose financial statement data can be accessed directly from the website.

Based on the predetermined sampling criteria, there are 11 BUS samples in this study, namely:

Table 1. Research Sample

No.	Bank Umum Syariah
1	PT Bank Aceh Syariah
2	PT BPD Nusa Tenggara Barat Syariah
3	PT Bank Muamalat Indonesia
4	PT Bank Victoria Syariah
5	PT Bank Jabar Banten Syariah
6	PT Bank Mega Syariah
7	PT Bank Panin Dubai Syariah,Tbk
8	PT Bank Syariah Bukopin
9	PT BCA Syariah
10	PT Bank Tabungan Pensiunan Nasional Syariah, Tbk
11	PT Bank Aladin Syariah, Tbk

Source: OJK

The total samples used in this study were 11 Islamic commercial banks selected based on predetermined criteria, with a total of 5 years in the period 2018-2022, so that 55 samples were obtained.

2.2 Definition and operationalisation of variables

The independent variables used in this study are Green Banking, FDR. The operational variables in this study are shown in the following table:

Table 2. Operational Variable

Variabel	Definisi Rumus	Rumus	Skala
Return on Asset (ROA)	ROA is the net return on each unit of assets owned. This measure illustrates the ability of assets to generate profit (Alaamsah et al., 2021)	$ROA = \dfrac{EBT}{Total\ asset} \times 100\%$	Ratio
Green Banking	Green banking is measured by the Green Banking Disclosure Index (GBDI), which has a total of 21 items. (Handajani, 2019)	$GBDI = \dfrac{Number\ of\ GB\ Disclosure}{Total\ GB\ indicator} X\ 100\%$	Ratio
Financing Deposit Ratio (FDR)	Financing to Deposit Ratio (FDR) is the ratio between the financing provided by the bank and the third party funds raised by the bank. (Alaamsah et al., 2021).	$FDR = \dfrac{Total\ Financing}{Third\ Party\ Funds} X\ 100\%$	Ratio

2.3 Methods of analysis

In testing the hypotheses proposed in this study, the researchers used analytical methods supported by Eviews 10 software. This study uses panel data which combines time series and cross-sectional data. This panel data regression test was conducted to determine the relationship between the independent variables, namely green banking and FDR on Islamic banking profitability. Profitability uses ROA as the dependent variable. The model used in this study is:

$$ROA = \alpha + \beta_1\ GBDI_{it} + \beta_2\ FDR + \varepsilon_{it} \qquad (4)$$

ROA = Return on Asset
GBDI = Green Banking Disclosure Index
FDR = Financing Deposit Ratio

The panel data regression method consists of three approaches, namely CEM (common effect model), FEM (fixed effect model) and REM (random effect model). The first is the Chow test, which is used to select the most appropriate model for estimating panel data between the CEM or FEM model. Second, the Hausman test is used to select the most appropriate FEM or REM model to estimate panel data. Third, the Lagrange multiplier test is used to determine whether REM is better than FEM for estimating panel data. And the coefficient of determination analysis is carried out to explain the relationship between the dependent variable and the independent variable in the research model.

According to Basuki & Prawoto (2017) in the ordinary least square (OLS) approach, not all classical assumption tests need to be performed on all linear regression models. According to Gujarati et al., (2012) the linearity test is not used because the model is assumed to be linear. Therefore, the linearity test is not used in this study. For panel data, the normality test is not mandatory. In fact, the normality test is not a requirement of the Best Linear Unbiased Estimator (BLUE) and some opinions do not require it. Therefore, the normality test was not performed in this study. Auto-correlation only occurs in time series data, panel data is a combination of cross-sectional and time series data. The autocorrelation test is not used in this study. Multicollinearity test has to be done when linear regression uses more than one independent variable. According to

Ghozali (2018) the multicollinearity test aims to test whether the regression model finds a high or perfect correlation between the independent variables. Heteroscedasticity tests are usually applied to cross-sectional data, panel data being closer to cross-sectional characteristics than time series. According to Ghozali (2018) the heteroscedasticity test is used to test whether in the regression model there is an inequality of variance of the residuals from one observation to another. Therefore, in this study only the multicollinearity test and the heteroscedasticity test were tested.

RESULTS AND DISCUS

1.1 Research Result

1. Deskriptive Statistic

Table 3. Descriptive Statistic Results

	ROA	GB	FDR
Mean	1.333818	0.402597	83.31364
Median	0.930000	0.428571	81.55000
Maximum	13.58000	0.809524	196.7300
Minimum	-10.85000	0.047619	38.33000
Std. Dev.	4.483490	0.183244	21.22810

Source: Processed data (2024)

Table 3. shows that the green banking indicator has an average value of 0.402597. The maximum value of the green banking indicator is 0.809524 owned by BTPN Syariah in 2022 and the minimum value is 0.047619 owned by BJB Syariah in 2018. The standard deviation of the green banking indicator is 0.183244. The mean value of FDR is 83.31364. The maximum value of FDR is 196.73 owned by Bank Syariah Bukopin in 2020 and the minimum value is 38.33 owned by Bank Muamalat in 2021. The standard deviation value of FDR indicator is 21.2281. ROA has a mean value of 1.333818. The maximum ROA value is 13.58 owned by BTPN Syariah in 2019 and the minimum value is -10.85 owned by Bank Aladin Syariah in 2022. The standard deviation of the FDR indicator is 4.48349.

2. Panel data regression model selection accuracy

a. Chow Test

Tabel 4. Chow Test

Effects Test	Statistic	d.f.	Prob.
Cross-section F	5.144610	(10,42)	0.0001
Cross-section Chi-square	43.984336	10	0.0000

Source: Processed data (2024)

Based on Table 4, the prob value of the cross-section F is 0.0001 <0.05, then H_0 is rejected and H_1 is accepted, which means that the fixed effect model is better than the common effect model.

b. **Haussman Test**

Tabel 5. Haussman Test

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	8.374838	2	0.0152

Source: Processed data (2024)

Based on Table 5, the Prob. Cross Section random value of $0.0152 < 0.05$ then H_1 is accepted and H_0 is rejected, this means that the appropriate model for this study is regression with a fixed effect model approach.

3. **Classical Assumption Test**

a. **Multicollinearity Test**

Tabel 6. Multicollinearity test

	GB	FDR
GB	1.000000	0.004781
FDR	0.004781	1.000000

Source: Processed data (2024)

Based on table 6, all independent variables have a value of less than 0.8, so it can be concluded that there is no multicollinearity in this research model.

b. **Heteroscedasticity Test**

Table 7. Heteroscedasticity Test

F-statistic	1.395628	Prob. F(2,52)	0.2568
Obs*R-squared	2.801890	Prob. Chi-Square(2)	0.2464
Scaled explained SS	4.859668	Prob. Chi-Square(2)	0.0881

Source: Processed data (2024)

Based on table 7, the White test results show the Prob. Chi-Square (2) on Obs * R-squared is $0.264 > 0.05$, so it can be concluded that there is no heteroscedasticity in this research model.

4. **Hypothesis Test**

a. **Regression Test Results**

Table 8. Regression Test Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.778393	2.820957	0.984912	0.3303
GB	-2.477884	2.793076	-0.887152	0.3800
FDR	-0.005365	0.029944	-0.179172	0.8587

Source: Processed data (2024)

Based on Table 8, the panel data regression model equation is obtained as follows:
ROA = 2,778393 – 2,477884 GBDI – 0,005365 FDR

b. Coefficient of Determination Test

Tabel 9. Coofficient Determination Test

R-squared	0.562916
Adjusted R-squared	0.438035

Source: Processed data (2024)

From the results of Table 9, the adjusted R-squared is 0.438035 or 43.80%. This shows that the GBDI and FDR variables can explain 43.80% of the ROA variable, while the remaining 56.20% is explained by other variables outside this research model.

c. Model Fit Test (F Test)

Tabel 10. F Test

F-statistic	4.507612
Prob(F-statistic)	0.000127

Source: Processed data (2024)

Based on Table 10, it can be seen that the results of the model fit test (F-test) present that the F-statistic value is 4.507612 with a Prob (F-statistic) value of 0.000127 <0.05, it can be concluded that the model in this study is feasible to use.

d. Individual Parameter Significance Test Results (t Statistical Test)

Based on the panel data regression results in Table 8, it can be seen that:

a) **Green Banking (GB)**
Based on the panel data regression test results, the t-value is -0.887152 and the probability value is 0.38> 0.05. Therefore, it can be concluded that GB has a negative effect on the profitability of Islamic commercial banks. Therefore, H_1 is rejected.

b) **Financing Deposit Ratio (FDR)**
Based on the results of panel data regression test, the t-value is -0.179172 and the probability value is 0.8587> 0.05. Therefore, it can be concluded that FDR has no effect on the profitability of Islamic commercial banks. Therefore, H_2 is rejected.

Discussion

1. Green Banking on the Profitability of Islamic Commercial Banks

The results of testing the first hypothesis in this study indicate that green banking as proxied by GBDI has a negative and insignificant effect on the profitability of Islamic commercial banks. This shows that the implementation of green banking does not increase profitability. There are other factors that influence the profitability of Islamic banks (Mahardika & Fitanto, 2023). This could be due to the fact that a large number of banks, including those that are well known to the public, have yet to fully implement or disclose green banking practices. Investors and stakeholders have not responded positively to the negative impacts of green banking implementation (Karyani & Obrien, 2020). According to Romli & Zaputra (2021) the negative impact of green banking implementation, investors and stakeholders have not responded positively. In addition,

the implementation of green banking requires additional costs such as compliance costs and the cost of producing sustainability reports which will negatively impact the profitability of banks.(Mustika et al., 2023). The results of this study are in line with research Mustika et al., (2023), and Mahardika & Fitanto, (2023) which states that green banking has a negative effect on profitability. Likewise Karyani & Obrien (2020) the results of research stating that the paradigm of corporate environmental regulations for environmental improvement will be very expensive.

2. **Liquidity on Profitability of Islamic Commercial Banks**

   The results of testing the second hypothesis, liquidity proxied by FDR has no effect on the profitability of Islamic commercial banks. Based on the FDR variable regression coefficient value is negative (-0.179172), this means that FDR has a negative correlation to profitability. The higher the FDR, the smaller the profitability, and vice versa. The higher FDR is not a benchmark for banks to obtain high profitability (Astuti, 2022).

   From the data of this research period, the overall average value of FDR is quite good, amounting to 83.31%. However, there are several Islamic banks in certain periods that still have FDR values below 80% and above 100%. According to Damayanti et al., (2021) if the FDR value is high, this indicates that the bank has low liquidity capability, and vice versa, if the FDR value is small, this indicates that the bank concerned has high liquidity. The FDR ratio of Islamic banking is considered to be effective to support the acquisition of high returns if it is in the range of 95%-98%. In accordance with POJK No. 17 of 2022, banks must maintain FDR at a lower limit of 78% and a maximum of 100% (Alaamsah et al., 2021). The results of this study are in line with the results of research, Alaamsah et al., (2021), Astuti, 2022), and Damayanti et al., (2021) which state that FDR has no effect on profitability.

CONCLUSION

This study aims to analyse green banking and liquidity on Islamic Banking Profitability. Profitability here uses the ROA ratio. Based on the results of panel data regression analysis, it can be concluded that:

1. Green banking, as proxied by the Green Banking Disclosure Index, has a negative impact on the profitability of Islamic commercial banks. The adoption of green banking has a negative effect on bank profitability. This shows that the more pressure there is to disclose green banking practices, the more losses the bank has to bear.

2. Liquidity proxied by the financing deposit ratio has no influence or impact on profitability. This shows that changes in the value of FDR have no impact on the value of return on assets (ROA) of Islamic banks; in other words, high liquidity has no significant impact on the low value of ROA.

ACKNOWLEDGEMENTS

REFERENCE

Alaamsah, R. H. D., Yetti, F., & Priyatno, P. D. (2021). Pengaruh NPF, CAR, Dan FDR Terhadap Profitabilitas Bank Umum Syariah Di Indonesia. *El-Iqtishod : Jurnal Kajian Ekonomi Syariah*, *5*(2), 19–46.

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. https://doi.org/10.21776/csefb.2022.01.2.10

Astuti, R. P. (2022). Pengaruh CAR, FDR, NPF, Dan BOPO Terhadap Profitabilitas Perbankan Syariah. *Jurnal Ilmiah Ekonomi Islam*, *8*(03), 3213–3223. https://doi.org/10.29040/jiei.v8i3.6100

Basuki, A. T., & Prawoto, N. (2017). *Analisis Regresi Dalam Penelitian Ekonomi& Bisnis: Dilengkapi Aplikasi SPSS & Eviews* (1st ed., Vol. 1). Rajawali Pers.

Bose, S., Khan, H. Z., Rashid, A., & Islam, S. (2018). What drives green banking disclosure? An institutional and corporate governance perspective. *Asia Pacific Journal of Management*, *35*(2), 501–527. https://doi.org/10.1007/s10490-017-9528-x

Damayanti, C., Nurdin, A. A., & Widayanti, R. (2021). Analisis Pengaruh NPF, CAR, dan FDR terhadap Profitabilitas Bank Umum Syariah di Indonesia Periode 2015-2019. *Journal of Applied Islamic Economics and Finance*, *2*(1), 9–20. https://doi.org/10.35313/jaief.v2i1.2818

Febiola, V., Fasa, M. I., & Suharto, S. (2023). Analisis Implementasi Green Banking Pada Bank Umum Syariah : Studi Pada Bank Syariah Indonesia. *Econetica*, *5*(1), 41–49.

Frida, C. V. O. (2020). *Manajemen Perbankan*. Garudhawaca.

Ghozali, I. (2018). *Aplikasi Analisis Multivariate dengan Program IBM SPSS 25* (9th ed.). Badan Penerbit Universita Diponogoro.

Gujarati, D. N., Dawn C. Porter, & Raden Carlos Mangunsong. (2012). *Dasar-Dasar Ekonometrika* (5th ed.). Salemba Empat.

Handajani, L. (2019). Corporate Governance dan Green Banking Disclosure: Studi pada Bank di Indonesia. *Jurnal Dinamika Akuntansi Dan Bisnis*, *6*(2), 121–136. https://doi.org/10.24815/jdab.v6i2.12243

Handajani, L., Rifai, A., & Husnan, L. H. (2019). Kajian Tentang Inisiasi Praktik Green Banking Pada Bank BUMN. *Jurnal Economia*, *15*(1), 1–16. https://journal.uny.ac.id/index.php/economia

Hanif, H., Ningsih, N. W., & Iqbal, F. (2020). Green Banking Terhadap Profitabilitas Bank Umum Syariah Di Indonesia. *Jurnal Fidusia*, *3*(2), 86–99.

Hery, H. (2017). *Teori Akuntansi: Pendekatan Konsep Dan Analisis*. Gramedia Widiasarana Indonesia.

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

Lako, A. (2015). *Green Economy:Menghijaukan Ekonomi, Bisnis, & akuntansi* (1st ed.). Erlangga.

Mahardika, P. A. D., & Fitanto, B. (2023). Pengaruh Green Banking Terhadap Kinerja Keuangan Perbankan Di Indonesia (Periode Tahun 2018-2022). *Contemporary Studies In Economics, Finance And Banking*, *2*(4), 659–672.

Muarif, H., Ibrahim, A., & Amri, A. (2021). Likuiditas, Kecukupan Modal, Pembiayaan Bermasalah Dan Pengaruhnya Terhadap Profitabilitas Bank Umum Syariah Di Indonesia Periode 2016-2018. *JIHBIZ: Global Journal of Islamic Banking and Finance*, *3*(1), 36–55. www.ojk.go.id

Mukaromah, N., & Supriono, S. (2020). Pengaruh Kecukupan Modal, Risiko Kredit, Efisiensi Operasional, Dan Likuiditas Terhadap Profitabilitas Perbankan Yang Terdaftar Di Bursa Efek Indonesia Tahun 2015 – 2017. *Journal of Economic, Management, Accounting and Technology*, *3*(1), 67–78. https://doi.org/10.32500/jematech.v3i1.1082

Muqoddam, F. (2014, March 14). *Rasio Pembiayaan (FDR) Bank Syariah yang Ideal 98%*. Www.Bisnis.Com. https://finansial.bisnis.com/read/20140314/232/210856/rasio-pembiayaan-fdr-bank-syariah-yang-ideal-98

Mustika, S. N., Kristianingsih, K., Tripuspitorini, F. A., & Djuwarsa, T. (2023). Analisis Pengaruh Penerapan Green Banking dan Efisiensi Biaya Operasional terhadap Profitabilitas Bank Umum Syariah di Indonesia. *Journal of Applied Islamic Economics and Finance*, *3*(2), 436–443. https://doi.org/10.35313/jaief.v3i2.3861

Qudriyah, H. L., Hastuti, H., Burhany, D. I., & Sumardi, S. (2021). An Analysis of Sustainable Finance Disclosure at Indonesian Sharia Commercial Banks using POJK 51/POJK.03/2017 Its Determinants and Influence on the Profitability. *Proceedings of the 2nd International Seminar of Science and Applied Technology (ISSAT 2)*.

Rachmawati, S., & Jayanti, D. (2023). Pengaruh Human Capital, Green Banking Disclosure dan Likuiditas terhadap Profitabilitas. *Portofolio: Jurnal Ekonomi, Bisnis, Manajemen Dan Akuntansi*, *20*(1), 1–15.

Romli, R., & Zaputra, A. R. R. (2021). Pengaruh Implementasi Green Banking, Corporate Social Responsibility terhadap Nilai Perusahaan pada Perusahaan Perbankan yang terdaftar di BEI. *Bisnis, Manajemen Dan Akuntansi*, *18*(2).

Siahaan, C., Silalahi, A. S., Syahyunan, S., & Sianipar, A. S. (2021). Analysis of Green Banking Sustainability And Financial Performance Implementation Towards Profitability of Banking Listed On The Indonesia Stock Exchange In 2012-2018. *Journal Of Management Analitycal and Solution (JoMAS)*, *1*(1), 1–12.

Wahyudi, R. (2020). Analisis Pengaruh CAR, NPF, FDR, BOPO dan Inflasi terhadap Profitabilitas Perbankan Syariah di Indonesia: Studi Masa Pandemi Covid-19. *At-Taqaddum*, *12*(1), 13. https://doi.org/10.21580/at.v12i1.6093

Wibowo, I. A. A., Wiyono, G., & Rinofah, R. (2020). Pengaruh Risiko Likuiditas, Net Interest Margin, Dan Good Corporate Governance Terhadap Kinerja Keuangan Bank Umum. *MODUS*, *32*(1), 53–65.