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Bank Size, Financing Risk, And Efficiency Level On The Liquidity Of Islamic Banking In Indonesia

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Abstract

Liquidity problems must be anticipated by Islamic banks. To prevent bank runs (massive withdrawal of bank customer funds) that cause public distrust of Islamic banks as a whole, it needs to be handled immediately. This study aims to determine the effect of company size variables, financing risk and efficiency level (BOPO) on liquidity (FDR) of Islamic banks listed on the Indonesia Stock Exchange for the period 2018-2022. Research data obtained from annual reports of banking companies listed on the Indonesia Stock Exchange for the period 2018-2022. This study was analyzed by multiple linear regression analysis (multiple regression) using the E-Views 10 program. Partially, the company size variable has an effect on bank liquidity and the financing risk variable and the efficiency level do not have a significant effect on the liquidity of Islamic banks listed on the IDX. simultaneously the three variables affect the liquidity of Islamic banking. it is hoped that further research can increase the number of variables that have not been used and increase the number of samples not only Islamic banking listed on the IDX but can also use conventional banks and other sectors.

Keywords: Bank size, NPF, BOPO, FDR.

INTRODUCTION

Banks are one of the sources of financing for people who need funds for business and consumptive purposes. Therefore, banks must carry out proper fund management so that they can continue to provide financing to improve people's lives (Putra & Syaichu, 2021). Given that the economy is the main pillar that ensures national stability, Islamic

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banking is one of the benchmarks for the application of the concept of Islamic economics in Indonesia. Islamic banks are financial institutions that also have obligations to their stakeholders. This obligation is to disclose information in a timely, adequate, precise, accurate, and comparable manner and is easily accessible to stakeholders (Suprayitno & Hardiani, 2021). Sharia-based banking and financial institutions in Indonesia continue to experience growth and their contribution to the national economy has increased rapidly from year to year.

The development of the financial sector, especially Indonesian Islamic banking, has the ability to improve the economy because of the very strategic role of financial institutions in regulating the economy of a country. Liquidity problems must be anticipated by Islamic banks. To prevent bank runs (massive withdrawal of bank customers' funds) that cause public distrust of Islamic banks as a whole, it needs to be handled immediately (Siregar, Rasyad, and Onasis 2023). As has happened to banks that have been liquidated by the Deposit Insurance Corporation (LPS), it needs to be anticipated by conducting research on the factors that influence it. The main task of Islamic banks as intermediary institutions is to collect funds from the public both in the form of deposits and from third parties, then channel these funds back to people who need funds to lend them. Banks, however, must have liquid funds that can be used to fulfill their obligations in terms of returning public funds at any time. This is especially true for Islamic banks as an increase in the BI rate indicates that customers will switch to conventional banks with higher interest rates. The ability of a bank to meet its obligations as they fall due is known as liquidity. The level of liquidity can be measured through the level of financing using the Financing to Deposit Ratio (FDR). Financing to Deposit Ratio (FDR), which in sharia principles is a comparison between total financing provided compared to total third party funds collected, serves as an indicator of the level of banking effectiveness in channeling credit or financing. The FDR ratio measures the bank's ability to utilize third party funds as a source of liquidity to meet client loan needs (Ardiansari et al., 2016).

This study will examine the influence of factors that have an impact on the liquidity risk of Islamic banking in Indonesia listed on the Indonesia Stock Exchange. The independent variables to be tested are bank size, financing risk (NPF) and efficiency level (BOPO). Bank size shows how large or small a banking industry is based on total assets. Research conducted by Budiyati & Kusumawardhani (2022) found that partially with the t test the bank size variable has a positive and significant effect on bank liquidity. Banks most often face financing risk, which is the risk caused by the inability of debtors to meet the requirements of creditors. When customers who borrow funds from banks cannot pay

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installments as agreed at the beginning of the contract, they face financing risk. Nonperforming financing (NPF) ratio is a tool that can be used to measure financing risk. The company's operational risk is one of the financing risk factors. This risk can be measured using the ratio of operating expenses to operating income (BOPO) (Prasetyandari 2021). Siregar (2023) in their research found that the results of the parsil test show that Non Performing Financing (NPF) has no effect on the liquidity of Islamic Commercial Banks, while simultaneously showing that Third Party Funds (DPK), Capital Adequacy Ratio (CAR), Non Performing Financing (NPF), and Return On Asset (ROA) simultaneously affect the liquidity variable of Islamic Commercial Banks.

Efficient banks show that the margin of operating costs to operating income is relatively far, which means they use operational factors more efficiently to earn greater profits. Controlling lower operating costs can result in a better level of efficiency (Rabbani, 2018). According to Bank Indonesia regulations, the ideal BOPO is between 50% and 75%. A BOPO ratio value above 90% or close to 100% indicates the bank's performance shows a very low level of operational efficiency. Conversely, a low BOPO ratio value, for example below 75%, indicates the bank's performance shows a high level of operational efficiency. The tolerable BOPO ratio in Indonesia is 93.52%. However, in March 2013, Bank Indonesia emphasized that a BOPO tolerance limit of 85% is needed to ensure that banks in Indonesia have a high level of efficiency. Based on the above background, the authors are interested in conducting research entitled “The Impact of Bank Size, Financing Risk, and Efficiency Level on Islamic Banking Liquidity in Indonesia”.

LITERATURE REVIEW

Agency Theory

According to Jensen and Meckling (1976), agency theory is an idea that explains the contingent relationship between a principal and an agent; this includes relationships between two or more individuals, or between groups or organizations. The party that has the authority to make decisions about business prospects and assigns responsibilities to other parties, also known as agents, is the principal. Assuming that everyone is self-interested, agency theory is the basis for the contractual relationship between the agent (manager) and the principal (owner) (Rianda 2023). Often, in agency relationships, principals seek to reduce agency costs, such as determining, capitalizing, and supervising agent behavior. On the other hand, agents seek to raise as much capital as possible and reduce the principal's control (Innayah et al., 2023).

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Bank Liquidity

Liquidity is usually defined as the ability of an organization to pay its short-term debts. From an asset perspective, liquidity is the bank's ability to convert all assets into cash. From a liability perspective, liquidity is the ability of banks to obtain funds by increasing their liability portfolio. To provide confidence to customers, banks must have good liquidity management.

The liquidity ratio of Islamic banks is proxied by FDR which has an intermediary function in Islamic banks. The term FDR is used because in Islamic banking the term debt (loan) is not recognized. Islamic banks only recognize financing or financing (Maheswari, 2021). Financing to Deposit Ratio (FDR) is the bank's ability to repay withdrawal funds that have been made by depositors using credit provided by the bank with funds received by the bank (Suprayitno & Hardiani, 2021). FDR assesses the ability of Islamic banks to meet all their short-term obligations when due. Islamic banks are considered liquid if they have the ability to return depositor funds when collected and have the ability to provide financing to external parties. So, if the FDR is high, it shows that the company is liquid (Putra & Syaichu, 2021).

Bank Size

Bank size, also known as “size of bank”, is a measure that shows how big or small a bank is. Company size is one of the factors that determine the company's ability to generate profits, based on its total assets. How big or small a bank is can be measured based on its total assets and capital. The more assets a bank has, the more profit it will generate (Muttaqin and Qomar 2022). Small banks have a smaller market share, whereas large banks are considered “too big to fail”, so they are considered to be insulated from the risk of bankruptcy. Compared to companies with low total assets, companies with large assets indicate that the company has reached a stage of maturity, are considered to have good prospects in the long term, and show that the company is relatively stable and able to earn profits. The size of a company can show that the bank avoids liquidity risk. Size is calculated from the total assets owned by the bank. Since total assets tend to be more stable than sales value and market capitalization, total assets are chosen as a proxy for the firm size variable. With large assets, institutions show a strong level of establishment because their financial situation is stable (Rohim 2023).

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Financing Risk

Financing risk is the risk that arises as a result of the inability of the borrower to fulfill his obligations. If the borrower does not return the funds according to the agreed schedule, it will cause the financing to become more problematic (Innayah et al., 2023). Banking liquidity is disrupted by high financing. One component that is thought to affect liquidity is non-performing financing. NPF is a ratio that explains the level of a bank's ability to deal with non-performing financing, whether caused by deliberate or other external factors (Fitri et al., 2023). According to Bank Indonesia regulations, NPF should not exceed 5% of total financing.

Efficiency Rate

A tool called efficiency rate, also known as operational efficiency, is used to assess and measure the profitability and business efficiency achieved by certain banks. These banks will gain maximum profits, increased amount of funds disbursed, more competitive fees, better customer service, security, and better banking health if they work efficiently, especially in terms of cost efficiency. The ratio of Operating Expenses to Operating Income (BOPO) can be used to determine the level of efficiency. The BOPO ratio is the ratio between operating expenses and operating income. The lower the BOPO ratio, the better bank management works because they use the resources they have more efficiently (Fathoni 2019). The operating costs incurred by the bank in question are more effective if the BOPO is lower, which means more financing can be paid out and fewer banking problems. The ideal BOPO is between 50% and 75%, according to Bank Indonesia regulations.

Conceptual Framework

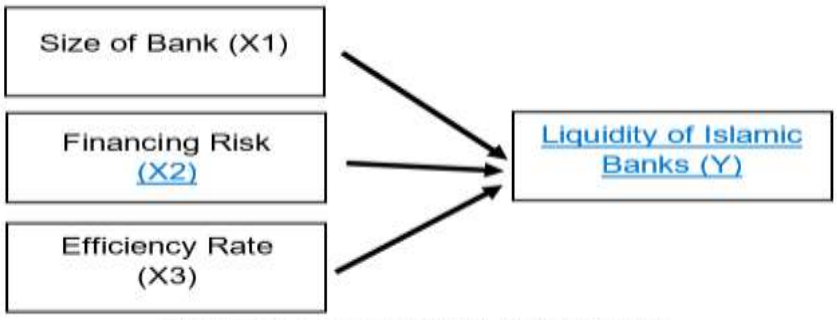


Figure 1 : Conceptual Framework

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Bank size on liquidity of Islamic banks in Indonesia

To determine whether an Islamic bank is large or small in scale, bank size is measured by calculating total assets from year to year over a period of time. Banks can spend more money with more assets and assets they have. Research conducted by Suci Handayani, Maizul Rahmizal, & Khairil Aswan (2022) found that bank size has a positive and insignificant effect on liquidity risk.

H1: Bank size has a positive and significant effect on the liquidity of Islamic banking in Indonesia.

Ho: Bank size does not have a positive and significant effect on Islamic banking liquidity in Indonesia.

Financing risk on liquidity of Islamic banks in Indonesia

Financing risk is the risk that arises as a result of the borrower's negligence in fulfilling its responsibilities. Risks included in Islamic bank financing include risks related to the company's products and financing. This risk is the responsibility of the bank, and can be in the form of intentional risk by the customer or unintentional risk due to natural disasters or calamities (Innayah et al., 2023). A lower NPF indicates lower credit risk borne by a bank. Therefore, a high NPF value can be considered as an indication that the bank has a problematic level of credit and is not professional in managing its credit.

Research conducted byErvina & Ardiansari (2016) Rufaidah, Djuwarsa, & Danisworo (2021) found that NPF has no significant effect on liquidity levels. (Jannah & Gunarso, 2020) in their research found that based on the t statistical test (partial test), it shows that the Non Performing Financing (NPF) variable partially has a negative or insignificant effect on the FDR variable, while the results of the F statistical test (simultaneous test) explain that the NPF and BOPO variables together (simultaneously) affect the FDR variable.

H2: Financing risk has a negative and significant effect on Islamic banking liquidity in Indonesia

Ho: Financing risk does not have a negative and significant effect on the liquidity of Islamic banking in Indonesia.

Efficiency level on liquidity of Islamic banks in Indonesia

The objective of cost efficiency is to reduce costs that are considered unnecessary. Cost efficiency will increase bank profits, which in turn will increase bank liquidity because the level of public confidence to deposit funds in the bank will increase. Jannah & Gunarso

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(2020) in his research found that Operating Costs of Operating Income (BOPO) partially had a positive or significant effect on the liquidity of Islamic banking. Research conducted by Rufaidah (2021) and Permana & Musthofa (2023) found that BOPO affects the liquidity of Islamic banks.

H3: The level of efficiency has a positive and significant effect on the liquidity of Islamic banking in Indonesia.

Ho: The level of efficiency does not have a positive and significant effect on the liquidity of Islamic banking in Indonesia.

RESEARCH METHODS

This research is a quantitative study using secondary data. This type of research is causality associative research, which is research that aims to determine the relationship between two or more variables. Quantitative method is a research method in the form of numbers and analysis using statistics. The population used in this study is Islamic banking companies listed on the Indonesia Stock Exchange. While determining the sample conducted in this study using purposive sampling technique with the criteria that it is an Islamic bank listed on the IDX, an Islamic bank that has an annual report from 2018-2022 and finally an Islamic bank that is still actively operating until 2022.

Based on data obtained from the Indonesia Stock Exchange website, it can be seen that the total population of Islamic Banking is 4 companies. From this population, a sample was then selected using purposive sampling so that 3 banking companies were collected that met the criteria, namely PT Bank Aladin Syariah Tbk (BANK), PT Bank BTPN Syariah Tbk (BTPS) and PT Bank Panin Dubai Syariah Tbk (PNBS).

According to Sugiyono, research variables are attributes or properties or values of people, objects or activities that have certain variations set by researchers to study and then draw conclusions. Independent variables, namely variables that are not influenced by other variables or called variables that affect the dependent variable. independent variables in this study are bank size (X1), financing risk (X2) and efficiency level (X3). While the dependent variable (independent variable), namely the variable that is influenced by the independent variable. The dependent variable in this study is the liquidity of Islamic banks (Y).

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Operational definition of variables

Table 1: Operational Definition of Variables

Variabel	Indikator	Referensi
Bank Size (X1)	Ln Total Assets	(Muttaqin & Qomar, 2022)
Financing Risk (X2)	Non Performing Financing (NPF) is the amount of problematic financing	Syachreza & Gusliana (2020)
Efficiency Level	Operating Expenses to Operating Income (BOPO), namely the amount of operating activity expenses for operating activity income.	Rabbani (2018)
Bank Liquidity (Y)	Financing to Deposit Ratio (FDR), which is third party funds channeled. .	Prasetyandari (2021)

Bank size

Bank size is defined as the amount and capacity of production as well as the bank's ability to provide services to customers. Because the amount of total assets of each bank varies, the size of the bank also shows how big or small the company is. The indicators in company size are total assets, stock market value, total revenue and others. In this study, company size is proxied by total assets. Compared to sales which are influenced by demand and supply, total assets were chosen as a proxy for company size because total assets are more representative and stable. Bank size can be seen by using the Log Natura formula on the bank's total assets (Rohim 2023).

Size = Ln (Total Assets)

Financing risk

Financing risk is usually associated with default risk. This is the risk that arises if customers or other parties do not fulfill their obligations to the bank in accordance with the agreed agreement. The bank's ability to reduce the risk of failure to repay financing by debtors is measured by the Non Performing Financing (NPF) ratio. Islamic banking uses the NPF ratio, while conventional banks use NPL (Non Performing Loan). This is because Islamic banking uses the principle of financing, while conventional banks use the term credit (loan).

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$$NPF = \frac{\text{Total Problem Financing}}{\text{Total Financing}} \; x \; 100\%$$

Efficiency level

In accordance with Bank Indonesia regulations, the minimum limit of Operating Expenses and Operating Income (BOPO) for commercial banks is 80% If BOPO exceeds this limit, the bank is considered unhealthy. Therefore, banks must be more thorough and careful in performing their performance so as not to harm the bank (Permana & Musthofa 2023). BOPO (Operating Expenses Operating Income) is the ratio between operating expenses and operating income. It is used to measure the level of efficiency and the bank's ability to conduct operations (Oktaviani et al., 2019).

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

Bank Liquidity

The ability of a bank to pay all debts, especially demand, savings, and time deposits, when collected by depositors, and fulfill all emergency credit requests from the public is known as liquidity. Banks experience liquidity risk when they are unable to meet their cash flow requirements quickly and at an appropriate cost to meet urgent funding needs and day-to-day transactions. Financing to Deposit Ratio (FDR) is the liquidity measure used. It shows how much the bank's ability to pay back withdrawals made by depositors using credit provided as a source of liquidity (Rohim 2023).

$$\text{FDR} = \frac{\text{Total Financing}}{\text{Third Party Funds}} \; x \; 100\%$$

Multiple Linear Regression Analysis

This study uses multiple linear regression analysis using the E-Views 10 program. The purpose of using multiple linear regression analysis is to explain how all independent variables, or independent variables, affect the dependent variable. The regression model used in this study is as follows:

$$\mathbf{Y = \beta 1X1 + \beta 2X2 + \beta 3X3 + e}$$

Description:

Y = Liquidity of Islamic Banks

β1 - β3 = Regression coefficient of each independent variable

X1 = Bank Size

X2 = Financing Risk

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X3 = Efficiency Level
e = Error/other factors

RESULT

Hypothesis Analysis and Testing

Model selection

1. Chow test results

Table 2: Uji Chow

Redundant Fixed Effects Tests			
Equation: Untitled			
Test cross-section fixed effects			
Effects Test	Statistic	d.f.	Prob.
Cross-section F	0.208101	(2,9)	0.8159
Cross-section Chi-square	0.678107	2	0.7124

The prob. value is 0.7124 > 0.05, so the CEM is chosen.

2. Hausman test results

Table 3: Hausman Test

Correlated Random Effects - Hausman Test			
Equation: Untitled			
Test cross-section random effects			
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	1.538174	2	0.4634

The prob value is 0.4634> 0.05, so the REM is selected

3. LM test

Table 4: LM Test

Lagrange multiplier (LM) test for panel data	
Date: 12/14/23 Time: 10:12	
Sample: 2018 2022	
Total panel observations: 15	
Probability in ()	

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Null (no rand. effect)	Cross-section	Period	Both
Alternative	One-sided	One-sided	
Breusch-Pagan	1.836973	0.101630	1.938602
	(0.1753)	(0.7499)	(0.1638)
Honda	-1.355350	-0.318794	-1.183798
	(0.9123)	(0.6251)	(0.8818)
King-Wu	-1.355350	-0.318794	-1.290694
	(0.9123)	(0.6251)	(0.9016)
GHM	--	--	0.000000
	--	--	(0.7500)

Prob value. 0.1753 > 0.05, then the chosen model is the CEM model.

Based on the chow test, hausman test and LM test, the selected model uses CEM

Classical Assumption Test

The selected model is CEM, therefore the classical assumption test is conducted. The classical assumption tests used are multicollinearity and heteroscedasticity.

1. Multicollinearity test

Table 5: Multicollinearity Test Results

	X1	X2	X3
X1	1.000000	0.675999	-0.311403
X2	0.675999	1.000000	-0.475532
X3	-0.311403	-0.475532	1.000000

The correlation coefficient between X1 and X2 is 0.675999 < 0.85, the correlation coefficient between X1 and X3 is -0.311403 < 0.85, and the correlation coefficient between X2 and X3 is -0.475532 < 0.85. So it can be concluded that it is free from multicollinearity or passes the multicollinearity test.

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2. Heteroscedasticity test

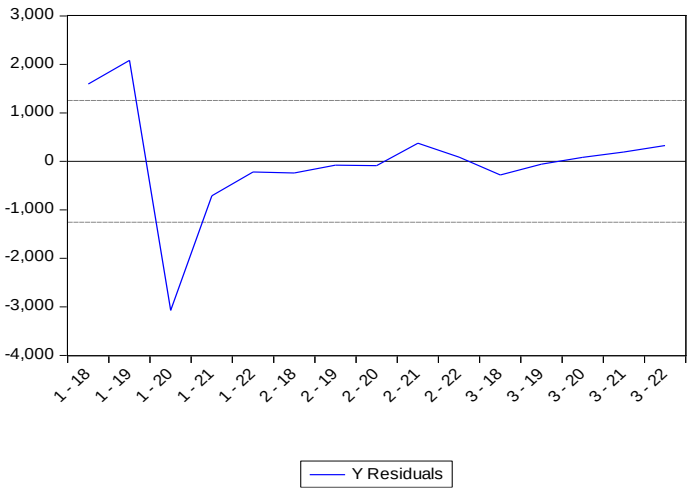


Figure 1: Heteroscedasticity test

From the residual graph (blue color) it can be seen that it does not cross the boundaries (500 and -500), meaning that the residual variance is the same. Therefore, there are no symptoms of heteroscedasticity or pass the heteroscedasticity test.

Panel Data Regression Equation Test

Table 6: Panel Data Regression Equation Test Results

Dependent Variable: Y				
Method: Panel Least Squares				
Date: 12/14/23 Time: 11:32				
Sample: 2018 2022				
Periods included: 5				
Cross-sections included: 3				
Total panel (balanced) observations: 15				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	16176.63	5315.608	3.043233	0.0112
X1	-956.6259	357.6657	-2.674637	0.0216
X2	-5974.310	30753.13	-0.194267	0.8495
X3	-352.7325	331.1174	-1.065279	0.3096

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R-squared	0.542743	Mean dependent var		621.7851
Adjusted R-squared	0.418037	S.D. dependent var		1645.798
S.E. of regression	1255.522	Akaike info criterion		17.33167
Sum squared resid	17339690	Schwarz criterion		17.52048
Log likelihood	-125.9875	Hannan-Quinn criter.		17.32966
F-statistic	4.352167	Durbin-Watson stat		2.201854
Prob(F-statistic)	0.029834			

Y = 16176.6320294 - 956.625896279*X1 - 5974.31037143*X2 - 352.732473798*X3

The explanation is as follows, the constant value of 16176.6320294 means that without the bank size variable (X1), NPF (X2) and BOPO (X3), the FDR variable (Y) will increase by 1617.66%. The regression coefficient value of size of bank (X1) -956.625896279 means that if the size of bank variable (total assets) increases by 1% assuming other variables remain constant, the value of the FDR variable (Y) will decrease by 956.6%. Conversely, if the size of bank (total assets) variable decreases by 1%, the FDR (Y) variable will increase by 956.6%. The regression coefficient value (b2) -5974.31037143 means that if the financing risk variable (NPF) increases by 1% assuming other variables are constant, the value of the FDR variable (Y) will decrease by 597.43%. Conversely, if the financing risk variable (NPF) decreases by 1%, the FDR variable (Y) will increase by 597.43%. The regression coefficient value (b3) -352.732473798 means that if the operational efficiency level variable (BOPO) increases by 1% assuming other variables are constant, the value of the FDR variable (Y) will decrease by 352.73%. Conversely, if the financing risk variable (NPF) decreases by 1%, the FDR variable (Y) will increase by 352.73%.

Hypothesis Test

1. Partial Test (t Test)

The t test is used to determine the effect of each independent variable, namely the size of the bank (total assets), financing risk (NPF), and the level of operational efficiency (BOPO) on liquidity (FDR) by comparing the probability with a significance level of 5%. The criteria for this (partial) t test are if the probability (significance) ≤ 0.05 then Ho is rejected and vice versa if the probability (significance) > 0.05 then Ho is accepted.

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Table 7: Results of the t-test

Dependent Variable: Y				
Method: Panel Least Squares				
Date: 12/14/23 Time: 11:46				
Sample: 2018 2022				
Periods included: 5				
Cross-sections included: 3				
Total panel (balanced) observations: 15				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	16176.63	5315.608	3.043233	0.0112
X1	-956.6259	357.6657	-2.674637	0.0216
X2	-5974.310	30753.13	-0.194267	0.8495
X3	-352.7325	331.1174	-1.065279	0.3096

The output results in the table above show the t table with α = 0.05, n = 15 and k = 3 obtained the t table value, df = n - k: df = 15 - 3 = 12, then look at the t table and get a value of 2.160. The results of testing the hypothesis of each independent variable partially on the dependent variable can be analyzed as follows: Based on the partial statistical test in Table 4.5, the size of bank (total assets) variable obtained a t value of -2.674 and a t table of 2.160 so that t count is greater than t table (2.674> 2.160). While the significant value of 0.0216 which is less than sig. = 0,05 (0.0216 < 0,05). Then Ho is rejected and Ha1 is accepted, indicating that the variable size of the bank (total assets) partially has a significant negative effect on liquidity (FDR). Based on partial statistical tests in Table 4.5, the financing risk variable (NPF) obtained a t value of 0.194 and a t table of 2.160 so that t count is smaller than t table (0.194 < 2.160). While the significant value is 0.8495 whose value is greater than sig. = 0,05 (0.8495 > 0,05). Then Ha2 is rejected and Ho is accepted, indicating that the financing risk variable (NPF) partially has no significant effect on liquidity (FDR). Based on the partial statistical test in Table 4.5, the efficiency level variable (BOPO) obtained a t value of 1.065 and a t table of 2.160 so that t count is smaller than t table (1.065 < 1.672). And a significant value of 0.3096 whose value is greater than sig. = 0,05 (0.3096 > 0,05). Then Ho is accepted and Ha3 is rejected, indicating that the variable efficiency level (BOPO) partially has no significant effect on liquidity (FDR).

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2. F test

The F test was conducted to determine the effect between the independent and dependent variables, namely, the size of the bank (total assets), financing risk (NPF), and the level of operational efficiency (BOPO) on liquidity (FDR) in Islamic Banking in 2018-2022 together or simultaneously with a significant level of 5%. Testing is done with statistical tests, with the following results:

Table 8: F Test Results

R-squared	0.542743	Mean dependent var	621.7851
Adjusted R-squared	0.418037	S.D. dependent var	1645.798
S.E. of regression	1255.522	Akaike info criterion	17.33167
Sum squared resid	17339690	Schwarz criterion	17.52048
Log likelihood	-125.9875	Hannan-Quinn criter.	17.32966
F-statistic	4.352167	Durbin-Watson stat	2.201854
Prob(F-statistic)	0.029834		

From the output results in table 8, it can be seen that the calculated F value obtained is 4.352. while the F table is obtained by the following calculation, namely F table = | a; df = (k-1), (n-k) | obtained F table of 3.587, which means F count> F table (4.352> 3.587), meaning that H0 is rejected. Thus the size of the bank (total assets), financing risk (NPF), and efficiency level (BOPO) simultaneously affect liquidity (FDR) in Islamic Banking in 2018-2022.

3. R^2 Test

This data test is used to determine the extent to which the accuracy of the line formed represents the research data group. The coefficient of determination (R2) used in this study is to use the Adjusted R2 value when evaluating the best regression model. Because this study uses more than one independent variable.

Table 9: Adjusted R-squared Test

R-squared	0.542743	Mean dependent var	621.7851
Adjusted R-squared	0.418037	S.D. dependent var	1645.798
S.E. of regression	1255.522	Akaike info criterion	17.33167
Sum squared resid	17339690	Schwarz criterion	17.52048
Log likelihood	-125.9875	Hannan-Quinn criter.	17.32966
F-statistic	4.352167	Durbin-Watson stat	2.201854

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Prob(F-statistic)	0.029834			

Based on the regression results in table 9, it can be seen that the Adjusted R-Squared value is 0.418037, this indicates that the variation of the dependent variable (FDR) together can be explained by the variation of the independent variables (Size of Bank, NPF, BOPO) by 41.8%. While the remaining 58.2% is explained by other variables outside the variables studied in this study.

DISCUSSION

The Effect of Size of Bank (Total Assets) on Liquidity (FDR) of Islamic Banking Listed on the IDX for the Period 2018-2022

Based on partial statistical tests in Table 4.5, the size of bank (total assets) variable obtained a t value of -2.674 and a t table of 2.160 so that t count is greater than t table (2.674> 2.160). While the significant value of 0.0216 which is less than sig. = 0,05 (0.0216 < 0,05). So Ho is rejected and Ha1 is accepted, indicating that the variable size of the bank (total assets) partially has a significant negative effect on liquidity (FDR) of Islamic Banking listed on the IDX for the period 2018-2022.

The amount of profit generated is strongly influenced by the asset structure. Since lending receivables are assets that generate income through interest, lending receivables will increase income. If the amount of non-current loans is very large, it will have an impact on the bank's income and lead to a decrease in capital. Any increase in assets or total assets will lead to a decrease in liquidity. The results of this study are supported by research conducted by Tri (2023) that the bank size variable has a significant negative effect on liquidity. This negative effect is caused by the value of total assets in financing, which of course increases financing to customers and affects the liquidity of the bank itself. Large banks usually have more complex operations, such as investment portfolios and more diverse products. This complexity may hinder the bank's ability to change liquidity needs quickly and effectively. In dealing with customer funding needs, large banks tend to have larger and more complex portfolios, which may increase liquidity risk.

The Effect of Financing Risk (NPF) on Liquidity (FDR) of Islamic Banking Listed on the IDX for the 2018-2022 Period

Based on the partial statistical test in Table 4.5, the financing risk variable (NPF) obtained a t value of 0.194 and a t table of 2.160 so that t count is smaller than t table (0.194 < 2.160). While the significant value is 0.8495 whose value is greater than sig. =

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0,05 (0.8495 > 0,05). Then Ha2 is rejected and Ho is accepted, indicating that the financing risk variable (NPF) partially has no significant effect on liquidity (FDR) of Islamic Banking listed on the IDX for the period 2018-2022.

Non-performing financing shows the amount of non-performing financing of the total financing provided by Islamic banks. The lower level of non-performing financing indicates that Islamic banks continue to evaluate their performance by reducing non-performing financing to prevent an increase in non-performing financing and remain at a predetermined limit. This indicates that if there is a decrease in the level of non-performing financing (NPF), the decrease in financing and liquidity level (FDR) in Islamic banks will not be affected. The results of the study can be concluded that the increase in the NPF value of Islamic Commercial Banks in Indonesia is very small so that banks cannot maintain their liquidity level. The small increase in NPF indicates that banks can still cope with the increase in financing that occurs.

The Effect of Efficiency Level (BOPO) on Liquidity (FDR) of Islamic Banking Listed on the IDX for the 2018-2022 Period

Based on partial statistical tests in Table 4.5, the efficiency level variable (BOPO) obtained a t value of 1.065 and a t table of 2.160 so that t count is smaller than t table (1.065 < 1.672). And a significant value of 0.3096 whose value is greater than sig. = 0,05 (0.3096 > 0,05). Then Ho is accepted and Ha 3 is rejected, indicating that the variable efficiency level (BOPO) partially has no significant effect on liquidity (FDR).

Operating Expenses to Operating Income (BOPO) is a tool used to measure how efficiently the bank runs its operations. BOPO is also very influential in measuring the level of efficiency and the bank's ability to run its operations. The level of Operating Expenses to Operating Income (BOPO) becomes higher because an increase in the Financing to Deposit Ratio (FDR) requires banks to make larger reserves for financing that has been channeled.

The Effect of Bank Size, Financing Risk, and Efficiency Level on Liquidity (FDR) of Islamic Banking Listed on the IDX for the Period 2018-2022.

From the output results in table 8, it can be seen that the calculated F value obtained is 4.352. while the F table is obtained by the following calculation, namely F table = | a; df = (k-1), (n-k) | obtained F table of 3.587, which means F count> F table (4.352> 3.587), meaning that H0 is rejected. Thus the size of the bank (total assets),

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financing risk (NPF), and efficiency level (BOPO) simultaneously affect liquidity (FDR) in Islamic Banking in 2018-2022.

CONCLUSION

Based on the results of the analysis and discussion that has been submitted, it can be concluded that the bank size variable (Size) affects liquidity with a probability value of 0.0216 whose value is less than sig. = 0.05 (0.0216 < 0.05), while the financing risk variable and the efficiency level have no effect on the liquidity of Islamic banking with a probability value of 0.8495 which is greater than sig. = 0.05 (0.8495 > 0.05) and 0.3096 whose value is greater than sig. = 0.05 (0.3096 > 0.05), so the two variables have no effect.

While simultaneously the variable Company size, NPF and BOPO have a simultaneous influence on liquidity (FDR) in Islamic Banking in 2018-2022 with the calculated F value obtained is 4.352. while the F table is obtained by the following calculation, namely F table = | a; df = (k-1), (n-k) | obtained F table of 3.587, which means F count> F table (4.352> 3.587).

The limitations of this study are the small sample used and the few variables. It is expected that future researchers can continue this research by considering macro and micro variables that may affect FDR. In addition, they can expand their research sample to Islamic banks as well as conventional banks.

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