
DETERMINANTS OF LIQUIDITY OF ISLAMIC COMMERCIAL BANKS IN INDONESIA

Dwi Kurniawan¹, Dita Andraeny²

¹Department of Islamic Accounting, Faculty of Islamic Economics and Business, Universitas Islam Negeri
Raden Mas Said Surakarta, Indonesia

² Department of Islamic Accounting, Faculty of Islamic Economics and Business, Universitas Islam Negeri
Raden Mas Said Surakarta, Indonesia

Article Info

Article history:

Received July 7th, 2024

Accepted October 21th, 2024

Keywords:

Liquidity, Profit-Sharing
Financing, Capital Adequacy
Ratio, Profitability, Non-
Performing Financing, Bank
Size

ABSTRACT

This research aims to determine the effect of profit-sharing financing, capital adequacy ratio, profitability, financing risk, and bank size on the liquidity of Islamic commercial banks in Indonesia during 2017-2022 period. The population of this research are all Islamic commercial banks registered with the Financial Services Authority. The samples used in this research are 10 Islamic commercial banks. The sampling technique used in this research is the purposive sampling method. The data analysis method in this research is Generalized Method of Moment while the data analysis tool used is STATA software version 17. The research results show that profitability has a positive and significant effect on the liquidity of Islamic commercial banks in Indonesia. Meanwhile, profit-sharing financing, capital adequacy ratio, financing risk and bank size have no significant effect on the liquidity of Islamic commercial banks in Indonesia.

Corresponding Author:

Dwi Kurniawan
Department of Islamic Accounting
Faculty of Islamic Economics and Business
Universitas Islam Negeri Raden Mas Said Surakarta,
Email: somais212@gmail.com

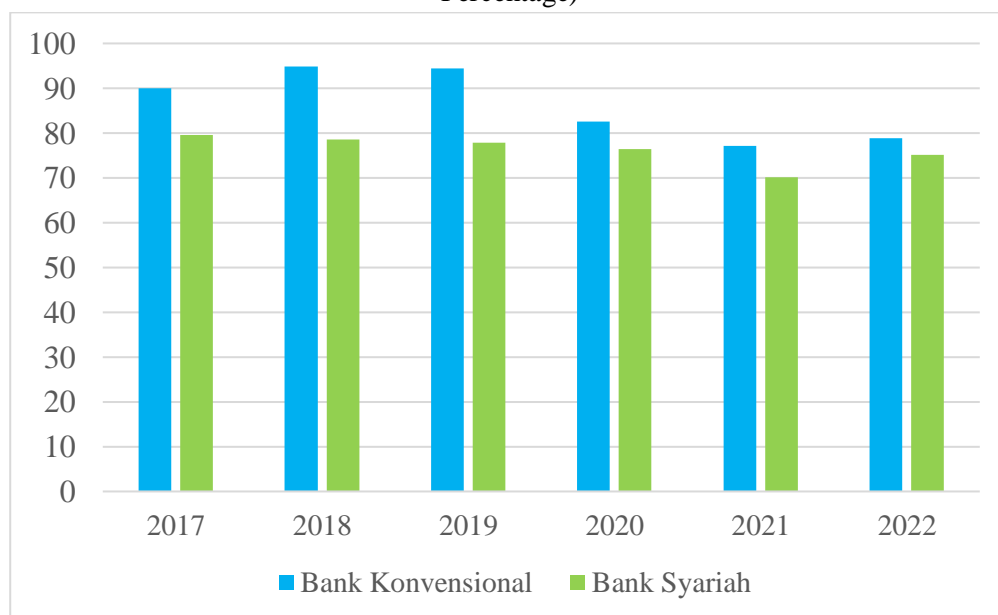
1. INTRODUCTION

Banks are institutions tasked with collecting money from the public in the form of savings and distributing money to the public in the form of credit or in other ways with the aim of improving the quality of life of the community (Novianti, 2019). Islamic banks and conventional banks are two categories in which banks are classified according to their operational activities. The profit-sharing system in the bank's operational activities is the main difference between Islamic banks and

conventional banks. The interest system is the profit-sharing system used by conventional banks. While the profit-sharing system is the profit-sharing system used by Islamic banks (Zainuri, 2016). Conventional banks are more vulnerable to liquidity problems than Islamic banks because the profit-sharing system of conventional banks is determined by the interest system which is fixed and not tied to bank income. Meanwhile, Islamic banks in the profit-sharing system is determined by the profit-sharing system where customers will receive profits depending on the bank's income (Muharam, 2012). To find out the condition of growth in liquidity of conventional banks and Islamic banks in Indonesia, it is presented in the following picture:

Figure 1.1

Liquidity Growth of Conventional Banks and Islamic Banks in Indonesia from 2017 to 2022 (In Percentage)



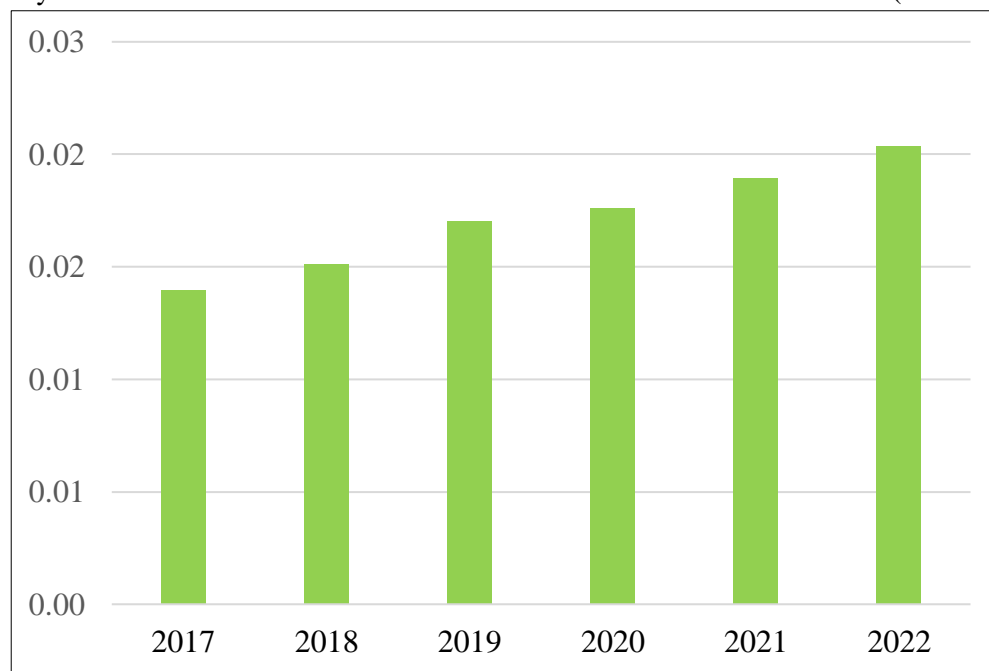
Source: OJK, Data processed by researchers, 2024

Based on the picture above, the Loan to Deposit Ratio (LDR) is used to measure the liquidity of conventional banks, while the Financing to Deposit Ratio (FDR) is used to measure the liquidity of Islamic banks. The higher the LDR and FDR values indicate that the bank is in an unhealthy condition, while the lower the LDR and FDR values indicate that the bank is in a healthy condition. Based on the picture above, it can be seen that the liquidity of Islamic banks is superior to the liquidity of conventional banks. This is consistent with research by Muharam (2012) which states that conventional banks apply an interest system in providing profit-sharing to customers, while Islamic banks apply a profit-sharing system. Because conventional bank funding costs are fixed and do not depend on income, conventional banks are more susceptible to liquidity risk compared to Islamic banks.

Based on the description above, it can be seen that conventional banks are more vulnerable to liquidity risk than Islamic banks, but Islamic banks also experience liquidity risk caused by problems in liquidity risk management. The problems in the liquidity risk management of Islamic banks are first, Islamic banks have difficulty in managing short-term liquidity fluctuations. Second, Islamic banks

experience a shortage of high-quality liquid assets that are in accordance with sharia principles, which is caused by the lack of extensive secondary markets for Islamic trading so that there are no more Islamic lending institutions. Thirdly, liquidity risk management in Islamic banks must be managed across all transactions, as their operations are contractual and asset-based. Islamic banks experience liquidity risk not only due to problems with liquidity risk management, but also due to the lack of acceptable, tradable, and flexible assets (Jedidia, 2020). To find out the condition of liquidity growth in Islamic commercial banks in Indonesia, it is presented in the following picture:

Figure 1.2
Liquidity Growth of Islamic Commercial Banks in Indonesia from 2017 to 2022 (In Percentage)



Source: OJK, Data processed by researchers, 2024

Based on the picture above, we calculate the liquidity of sharia commercial banks by dividing cash by the total assets owned by sharia commercial banks. The higher the value of the liquidity ratio, the better a company's ability to pay its short-term debt (Amanah, 2014). When the liquidity value of a company is high, it shows that the company is able to pay its short-term debt according to the maturity date. A company's high liquidity value can be a positive signal for company management in attracting investors to invest their capital in the company (Najah, 2023). The picture above shows that from 2017 to 2022 the liquidity growth of Indonesian sharia commercial banks continues to increase. Thus, it can be said that Islamic commercial banks have a good ability to pay their short-term debt according to the maturity date.

The main problem raised in this research is what are the factors that can affect the liquidity of Islamic commercial banks in Indonesia. In this research, variables that can affect the liquidity of Islamic commercial banks in Indonesia include profit-sharing financing, capital adequacy, profitability, financing risk, and bank size. In this research, profit-sharing financing is measured by mudharabah financing plus musyarakah financing divided by total assets owned by Islamic banks,

capital adequacy is measured by Capital Adequacy Ratio (CAR), profitability is measured by Return on Assets (ROA), financing risk is measured by Non-Performing Financing (NPF), and bank size is measured by Natural Logarithm (LN) of total assets owned by the bank.

The implementation of profit-sharing financing, including *musyarakah* financing and *mudharabah* financing poses challenges due to transparency requirements. In addition, there are many risks associated with profit-sharing financing. Islamic banks have increased liquidity risk when adopting the profit-sharing system as short-term deposits are often used to finance long-term profits. Lack of financial resources and liquidity restrictions can be caused by the revenue intermediary function. To prevent liquidity risk, Islamic banks need to protect it by strengthening their liquidity management (Anggraeni, 2022). Thus it can be said that the higher the profit-sharing financing, the lower the liquidity of Islamic banks and vice versa. This statement is in line with the research of Jedidia (2020) and is not in accordance with the research of Anggraeni (2022).

In this research, capital adequacy is measured by Capital Adequacy Ratio (CAR). CAR has a positive effect on liquidity risk. This shows that after expanding its operations, the bank will have money reserves that can be used as liquid assets. High liquidity assets indicate that the bank is able to pay its short-term debt according to the maturity time (Sukmana, 2016). Thus it can be said that the higher the CAR value, the higher the liquidity of Islamic banks and vice versa. This statement is in line with Al-Harbi's research (2020) and is not in accordance with Jedidia's research (2020).

In this research, profitability is measured by Return on Assets (ROA). A high ROA value indicates that the bank's profits are also high. ROA can be used to pay short-term debt by increasing the amount of financing available through capital expansion (Ichwan, 2017). Thus it can be said that the higher the ROA value, the higher the liquidity of Islamic banks and vice versa. This statement is in line with Widyarti's research (2022) and is not in accordance with Anggraeni's research (2022).

In this research, financing risk is measured by Non-Performing Financing (NPF). NPF is the loss of a bank's opportunity to generate income through financing. A high NPF value can reduce income and reduce the bank's ability to provide financing. When banks provide financing, one of the dangers that banks face is that customers will not return the money given by the bank. This is called financing risk. NPF indicates the bank's ability to manage the financing risk associated with some of the loans that are a component of bad debts. Due to large debt delays, the bank needs to maintain a large payment reserve so that the bank cannot provide financing to customers. Thus, the bank will issue less financing which will impact liquidity. In this case, financing is not provided to other banks and financing is only provided to third parties. Non-performing financing is categorized as substandard, doubtful, and bad financing (Rufaidah, 2021). Thus it can be said that the higher the financing risk, the lower the liquidity of Islamic banks and vice versa. This statement is in line with Prastiwi's research (2021) and is not in accordance with Gogo's research (2021).

In this research, bank size is measured by the Natural Logarithm (LN) of total assets owned by the bank. Customers will feel more confident borrowing money from banks that have many assets. This is due to the fact that having a lot of bank assets will convince customers to provide funds to the bank, because if one day the bank is exposed to liquidity risk, the bank will sell its many assets to cover its debt (Amalia, 2017). Thus it can be said that the larger the size of the bank, the higher the liquidity of Islamic banks and vice versa. This statement is in line with Al-Harbi's research (2020) and is not in accordance with Jedidia's research (2020).

Based on the phenomena previously described, researchers aim to determine the liquidity conditions of Islamic commercial banks and conventional banks in Indonesia. Based on the profit-sharing system in its operational activities, conventional banks use an interest system, while Islamic

banks use a profit-sharing system. The difference in the profit-sharing system causes the liquidity of Islamic banks to be better than the liquidity of conventional banks. Where liquidity is very important for the survival of the bank, if the bank has high liquidity it can hinder the bank in competing with other banks, if the bank has low liquidity then the bank can experience bankruptcy. Therefore, banks must maintain a proper liquidity balance.

In addition, researchers aim to determine the liquidity condition of Islamic commercial banks in Indonesia. Based on Figure 1.2, it can be seen that from 2017 to 2022 the growth of liquidity of Islamic commercial banks in Indonesia continues to increase. When the liquidity value of a company is high, it shows that the company is able to pay its short-term debt according to the due date. High company liquidity value can be a positive signal for company management in attracting investors to invest their capital into the company.

This research is a replication of Jedidia's research (2020), the difference lies in the variables, year, and object of research. These differences will produce different conclusions. This research aims to determine the latest state of the Effect given in this research. After considering the things previously described. Researchers will conduct research with the title "The Effect of Profit-sharing Financing, Capital Adequacy, Profitability, Financing Risk, and Bank Size on the Liquidity of Islamic Commercial Banks in Indonesia".

The problem limitation in this research is that the research period is limited to 6 years from 2017 to 2022 and researchers only use 1 research object, namely Islamic commercial banks registered with the Otoritas Jasa Keuangan (OJK). This research aims to determine the effect of profit-sharing financing, capital adequacy, profitability, financing risk, and bank size on the liquidity of Islamic commercial banks in Indonesia. This research is expected to benefit several parties as follows:

1. Islamic commercial banks can use this research as a basis for analyzing the financial statements of Islamic banks and determining how liquid Islamic banks are. In addition, this research can serve as a basis for making decisions to improve the welfare of Islamic banks.
2. Investors can use this research as a basis for making decisions when wanting to invest in Islamic banks.
3. For the community, they can use this research as a basis for making decisions when they want to become customers in Islamic banks, where Islamic banks have provided several products and services offered when people become customers in Islamic banks.
4. Future researchers can use this research as a source of reference when taking research titles related to the effect of profit-sharing financing, capital adequacy, profitability, financing risk, and bank size on the liquidity of Islamic commercial banks in Indonesia.

Literature Review

Signal Theory

In this research, the theory used is signal theory which refers to Septiana's research (2022). Signal theory is information that helps investors and company owners make judgments about the financial health of a bank in the past, present or future. The relationship between signal theory and liquidity is that the company is considered very good if the liquidity value is high, which indicates that the company can pay short-term debt according to the maturity time. The high liquidity value of the company will be a positive signal for company management in attracting investors who are interested in investing capital in the company (Najah, 2023).

The relationship between signal theory and profit-sharing financing is that the bank will be in good condition when the bank has high profit-sharing financing. High profit-sharing financing will be a

positive signal for Islamic bank management in attracting the public to carry out financing and funding at Islamic banks (Lesta, 2022).

In this research, capital adequacy is measured by Capital Adequacy Ratio (CAR). The relationship between signaling theory and CAR is that the bank will have the ability to absorb losses from its operational activities if the bank has a high CAR value. A high CAR value will be a positive signal for Islamic bank management in attracting investors who are interested in investing capital in Islamic banks (Sastrawan, 2023).

In this research, profitability is measured by Return on Assets (ROA). The relationship between signaling theory and ROA is that the bank will have high profits if the bank has a high ROA value. A high ROA value will be a positive signal for Islamic bank management in attracting investors who are interested in investing capital in Islamic banks (Herninta, 2020).

In this research, financing risk is measured by Non-Performing Financing (NPF). The relationship between signaling theory and NPF is that a high NPF value in the financial statements of Islamic banks indicates that Islamic banks are not efficient in managing their finances. A high NPF value will be a negative signal for Islamic bank management in attracting investors who are interested in investing capital in Islamic banks (Yushinta, 2020).

In this research, bank size is measured by the Natural Logarithm (LN) of total assets owned by the bank. The relationship between signal theory and bank size is that the bank will have good performance and be able to face risks in managing its assets if the bank has a large size. Large bank size will be a positive signal for Islamic bank management in attracting investors who are interested in investing capital in Islamic banks (Agustuty, 2019).

Hypotheses Development

The Effect of Profit-Sharing Financing on Liquidity of Islamic Commercial Banks in Indonesia

Inadequate liquidity management can lead to liquidity problems. Overfinancing is one of the causes. Many still think that a lot of financing can generate a large profit as well. Based on that assumption, the bank may approve as many financing requests as the customer wants regardless of the amount of funds the bank can raise. When this happens, customers may withdraw more money from the loan facility than the amount of money they are allowed to withdraw from the loan facility. Then, the liquidity of Islamic banks will decrease as profit-sharing financing increases (Samsurin, 2017). Thus it can be said that the higher the profit-sharing financing, the lower the liquidity of Islamic banks and vice versa. This statement is in line with research by Jedidia (2020) and Hidayati (2014). Based on the description above, the following hypothesis is obtained:

H1: Profit-sharing financing has a negative effect on the liquidity of Islamic commercial banks in Indonesia.

The Effect of Capital Adequacy on Liquidity of Islamic Commercial Banks in Indonesia

In this research, capital adequacy is measured by the Capital Adequacy Ratio (CAR). A high CAR value indicates that the bank has a lot of capital that the bank can use to settle its short-term liabilities quickly (Anggraeni, 2022). Thus it can be said that the higher the CAR value, the higher the liquidity of Islamic banks and vice versa. This statement is in line with research Al-Harbi (2020) and Addou (2021). Based on the description above, the following hypothesis is obtained:

H2: Capital adequacy has a positive effect on the liquidity of Islamic commercial banks in Indonesia.

The Effect of Profitability on Public Liquidity of Islamic Banks

In this research, profitability is measured by Return on Assets (ROA). A sign that a bank can provide sufficient liquidity is when a bank can make a profit. An increase in profitability indicates that bank profits are increasing. Increased bank profits cause banks to have the ability to generate large amounts of cash and cash equivalents that can serve to finance bank liquidity (Anggraeni, 2022). Thus it can be said that the higher the ROA value, the higher the liquidity of Islamic banks and vice versa. This statement is in line with research Widyarti (2022) and Akhtar (2011). Based on the description above, the following hypothesis is obtained:

H3: Profitability has a positive effect on the liquidity of Islamic commercial banks in Indonesia.

The Effect of Financing Risk on Liquidity of Islamic Commercial Banks in Indonesia

In this research, financing risk is measured by Non-Performing Financing (NPF). Banks will have less flexibility in receiving financing if the NPF value is high, which indicates that the bank has high non-performing financing which will have an impact on the bank's sub-optimality in channeling funds to customers. The welfare of the bank will be higher if the NPF value is low due to the absence of non-performing financing. When banks have inadequate assets, bank liquidity will decrease. Banks can have a negative effect from an increase in NPF. Losses will occur to the bank as the volume of non-performing financing increases. As a result, bank liquidity needs to be reduced. A bank that has a high NPF value will eventually face liquidity problems as well as losses caused by bad debts (Anggraeni, 2022). Thus it can be said that the higher the NPF value, the lower the liquidity of Islamic banks and vice versa. This statement is in line with research Prastiwi (2021) and Ardiansari (2016). Based on the description above, the following hypothesis is obtained:

H4: Financing risk has a negative effect on the liquidity of Islamic banks in Indonesia.

The Effect of Bank Size on Liquidity of Islamic Commercial Banks in Indonesia

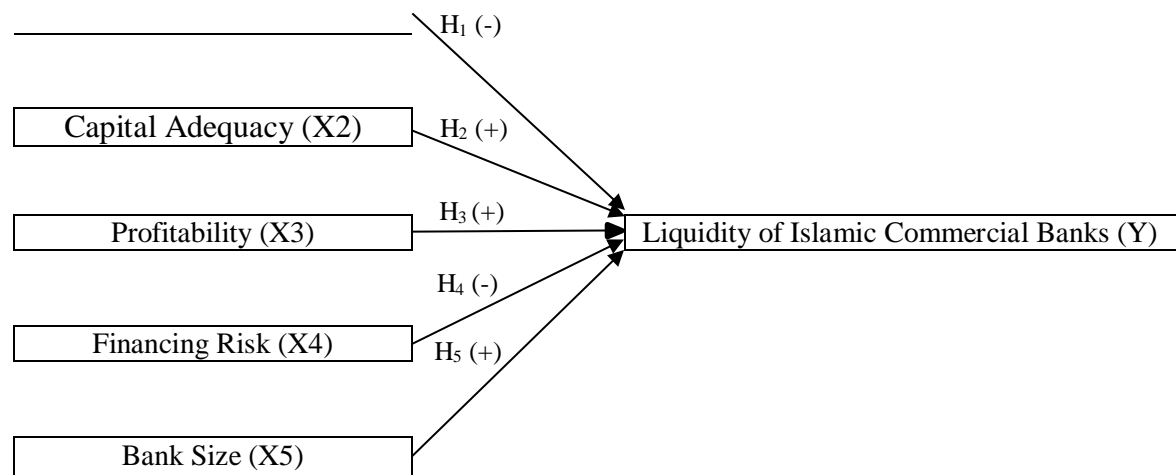
In this research, bank size is measured by the Natural Logarithm (LN) of total assets owned by the bank. The size of the bank can be determined by the amount of assets it has. Banks that have a lot of assets show that the bank has a large size. Then a bank that has a lot of assets will earn more profits. Thus, these profits can be used by the bank to pay off its debts. The more assets the bank has, the bank's liquidity will also increase (Anggraeni, 2022). Thus it can be said that the larger the size of the bank, the higher the liquidity of Islamic banks and vice versa. This statement is in line with research Al-Harbi (2020) and Al-Harbi (2017). Based on the description above, the following hypothesis is obtained:

H5: Bank size has a positive effect on the liquidity of sharia commercial banks in Indonesia.

Figure 2.1

Research Framework

Profit-Sharing Financing (X1)



Source: Jedidia (2020), Hidayati (2014), Al-Harbi (2020), Addou (2021), Widyarti (2022), Akhtar (2011), Prastiwi (2021), Ardiansari (2016), and Al-Harbi (2017).

METHOD

Research Design

In this research, the type of research used is quantitative research. the research time covers six years from 2017 to 2022 and the research area used is Islamic commercial banks in Indonesia registered with the Otoritas Jasa Keuangan (OJK).

Sample Selection and Data Sources

The population used is all Islamic commercial banks registered with the Otoritas Jasa Keuangan (OJK) in 2024, namely 15 Islamic commercial banks. The sample used was 10 Islamic commercial banks registered with the Otoritas Jasa Keuangan (OJK). The sampling technique used is purposive sampling method.

Data Collection

The data used is secondary data. The data sources used were obtained from annual financial report data from 2017 to 2022 on the website of each Islamic commercial bank sampled in this research. The data collection technique used is documentation. Documentation is obtained by downloading annual financial statement data from 2017 to 2022 on the website of each Islamic commercial bank sampled in this research. In this research, there are two types of variables used, namely Islamic commercial bank liquidity as the dependent variable and profit-sharing financing, capital adequacy, profitability, financing risk, and bank size as independent variables.

Operational Definition of Variables

In this research, the operational definitions of the variables used are as follows:

Liquidity

Liquidity is the ability of a company to fulfill its short-term obligations without having to sell long-term assets (Meliana, 2022). The formula for calculating liquidity is as follows (Jedidia, 2020):

$$\text{Liquidity} = \frac{\text{Cash}}{\text{ }}$$

Total Assets

Profit-Sharing Financing

Profit-sharing financing is a cooperation contract between the bank acting as the owner of the capital and the customer acting as the manager of the capital to get profit and share the profit according to a predetermined ratio (Nurhayati, 2009). The formula for calculating profit-sharing financing is as follows (Jedidia, 2020):

$$\text{Profit-Sharing Financing} = \frac{\text{Mudharabah Financing} + \text{Musyarakah Financing}}{\text{Total Assets}}$$

Capital Adequacy

In this research, capital adequacy is measured by the Capital Adequacy Ratio (CAR). CAR is a capitalization ratio that shows the bank's ability to provide funds for business expansion and bear the risk of losses arising from the bank's operational activities (Bimantoro, 2019). The formula for calculating CAR is as follows (Jedidia, 2020):

$$\text{CAR} = \frac{\text{Tier 1 capital} + \text{Tier 2 capital}}{\text{Risk Weighted Assets (RWA)}}$$

Profitability

In this research, profitability is measured by Return on Assets (ROA). ROA is a ratio used to evaluate the ability of the bank's management team to generate profits and oversee the bank's overall operational efficiency (Rahmani, 2017). The formula for calculating ROA is as follows (Jedidia, 2020):

$$\text{ROA} = \frac{\text{Profit After Tax}}{\text{Total Assets}}$$

Financing Risk

In this research, financing risk is measured by Non-Performing Financing (NPF). NPF is a ratio used to evaluate the bank's ability to manage non-performing financing which is defined as the risk that occurs because the customer does not return the financing that has been provided by the bank (Safitri, 2020). The formula for calculating NPF is as follows (Anggraeni, 2022):

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

Bank Size

Bank size is a measure to determine the size of a bank based on total assets, total financing, log size, stock market value, and other assets owned by a bank (Rachman, 2013). The formula for calculating bank size is as follows (Jedidia, 2020):

$$\text{Bank Size} = \text{LN}(\text{Total Assets})$$

Data Analysis

The data analysis technique used is dynamic panel data regression analysis technique. The data analysis methods used are descriptive statistical analysis, dynamic panel data estimation

model, dynamic panel data estimation method, dynamic panel data model selection test, and hypothesis testing. The data analysis tool used is STATA software version 17.

RESULTS AND DISCUSSION

Results

Descriptive Analysis

Descriptive statistical analysis is used to determine the mean, median, standard deviation, deviation, kurtosis, minimum, and maximum values (Hamid, 2020). In this research, there are two types of variables used, namely Islamic commercial bank liquidity as the dependent variable and profit-sharing financing, capital adequacy, profitability, financing risk, and bank size as independent variables.

Table 4.1
Results Descriptive Statistical Analysis

Variable	Obs	Mean	Std. dev.	Min	Max
lkd	52	.017356	.0234249	.0003383	.0760792
pbh	52	.3079223	.2042917	.0005009	.7068707
car	52	.2982885	.2089859	.1151	1.4968
roa	52	.0131038	.0381224	-.1077	.1358
npf	52	.0332288	.0372121	0	.2204
size	52	29.80339	.7475818	27.87448	30.99025

Source: Data processed by STATA 17, 2024

The following is the interpretation of the results of the descriptive statistical analysis above:

- Liquidity of Islamic Commercial Bank**
Islamic commercial bank liquidity as a dependent variable symbolized by with a number of observations of 52 has an average value of 0,017356, a standard deviation of 0,0234249, a minimum value of 0,0003383, and a maximum value of 0,0760792.
 - Profit-Sharing Financing**
Profit-sharing financing as the first independent variable symbolized by (pbh) with a number of observations of 52 has an average value of 0,3079223, a standard deviation of 0,2042917, a minimum value of 0,0005009, and a maximum value of 0,7068707.
 - Capital Adequacy**
Capital adequacy as the second independent variable is measured by the Capital Adequacy Ratio (CAR) which is symbolized by (car) with a number of observations of 52 having an average value of 0,2982885, a standard deviation of 0,2089859, a minimum value of 0,1151, and the maximum value is 1,4968.
 - Profitability**
Profitability as the third independent variable is measured by Return on Assets (ROA) which is symbolized by (roa) with a number of observations of 52 having an average value of 0,0131038, a standard deviation of 0,0381224, a minimum value of -0,1077, and the maximum value is 0,1358.
 - Financing Risk**
Financing risk as the fourth independent variable is measured by Non-Performing Financing (NPF) which is symbolized by (npf) with a number of observations of 52 having an average
-

value of 0,0332288, a standard deviation of 0,0372121, a minimum value of 0, and a maximum of 0,2204.

6. Bank Size

Bank size as the fifth independent variable symbolized by (size) with a number of observations of 52 has an average value of 29,80339, a standard deviation of 0,7475818, a minimum value of 27,87448, and a maximum value of 30,99025.

Results

First Differences Generalized Method of Moment (FD-GMM) Test

The First Differences Generalized Method of Moment (FD-GMM) test is a method used to overcome the problem of the relationship between the lag of the dependent variable and the error component (Pandur, 2016). There are the best criteria for the results of the dynamic panel data estimation method using the GMM method, namely having a valid, consistent and unbiased instrument (Zuhroh, 2021).

Table 4.2
First Differences Generalized Method of Moment (FD-GMM) Test Results

lkd	Coefficient	Std. err.	z	P> z	[95% conf. interval]
lkd L1.	-.0932594	.4253481	-0.22	0.826	-.9269264 .7404075
pbh	-.0756586	.3027532	-0.25	0.803	-.6690439 .5177267
car	-.6906464	.3354622	-2.06	0.040	-1.34814 -.0331526
roa	.0612485	.0698546	0.88	0.381	-.075664 .198161
npf	.1382261	.3291296	0.42	0.675	-.5068561 .7833083
size	.7639296	17.11993	0.04	0.964	-32.79052 34.31838
_cons	-3.70333	24.85959	-0.15	0.882	-52.42724 45.02058
Wald chi2(6) = 6.09					
Prob > chi2 = 0.4132					

Source: Data processed by STATA 17, 2024

Based on the Sargan test results, the FD-GMM test has a valid instrument. Based on the Arellano-Bond test results, the FD-GMM test has a consistent instrument. Based on the unbiased test results, the FD-GMM test has a biased instrument. Thus it can be said that the FD-GMM test does not have the best criteria from the estimation method results because it has a biased instrument.

Validity Test

Validity test is a test to find out whether there is a relationship or not between the instrument and the error component. The test used to test the validity test is the Sargan test (Zuhroh, 2021).

Table 4.3
First Differences Generalized Method of Moment (FD-GMM) Sargan Test Results

chi2(9)	14.00796
Prob > chi2	0.1220

Source: Data processed by STATA 17, 2024

Based on the results of the Sargan test using the First Differences Generalized Method of Moment (FD-GMM) method above, it can be seen that the Chi-Square probability value is 0,1220, meaning the Chi-Square probability value is more than 0,05, then H_0 is accepted, meaning the Sargan test does not exist. correlation between the instrument and the error component means the instrument can be said to be valid. Thus, it can be said that the results of the Sargan test using the FD-GMM method have a valid instrument.

Consistency Test

The consistency test is a test to determine whether there is an autocorrelation problem or not from the results of the dynamic panel data estimation method using the Generalized Method of Moment (GMM) method. The test used to test the consistency test is the Arellano-Bond test (Zuhroh, 2021). A two-step estimator with robust standard-errors is required before carrying out the Arellano-Bond test (Juanda, 2021). The test used to test robust standard errors is the Wald test.

Table 4.4
Wald Test Results First Differences Generalized Method of Moment (FD-GMM)

lkd	Coefficient	Robust std. err.	z	P> z	[95% conf. interval]
lkd L1.	-.0932594	.2201219	-0.42	0.672	-.5246903 .3381715
pbh	-.0756586	.2055822	-0.37	0.713	-.4785923 .3272752
car	-.6906464	.3521579	-1.96	0.050	-1.380863 -.0004295
roa	.0612485	.0463973	1.32	0.187	-.0296886 .1521856
npf	.1382261	.281845	0.49	0.624	-.4141799 .690632
size	.7639296	18.16688	0.04	0.966	-34.8425 36.37036
_cons	-3.70333	26.75028	-0.14	0.890	-56.13291 48.72625
Wald chi2(6) = 15.58					
Prob > chi2 = 0.0162					

Source: Data processed by STATA 17, 2024

Based on the wald test results of the First Differences Generalized Method of Moment (FD-GMM) method above, it can be seen that the Chi-Square probability value is 0,0162, meaning that the Chi-Square probability value is less than 0,05, then H_0 is rejected, meaning that the wald test does not have biased instruments from the results of the dynamic panel data estimation method with the GMM method. Thus it can be said that the results of the wald test of the FD-GMM method have unbiased instruments.

Table 4.5
Arellano-Bond Test Results First Differences Generalized Method of Moment (FD-GMM)

Order	z	Prob > z
1	-1.2928	0.1961
2	-1.0873	0.2769

Source: Data processed by STATA 17, 2024

Based on the results of the Arellano-Bond test using the First Differences Generalized Method of Moment (FD-GMM) method above, it can be seen that the Z-Score probability value is 0,2769, meaning the Z-Score probability value is more than 0,05, then H_0 is accepted, meaning the test Arellano-Bond does not have an autocorrelation problem from the results of the dynamic panel data estimation method using the GMM method, so the instrument can be said to be consistent. Thus, it can be said that the results of the Arellano-Bond test using the FD-GMM method have a consistent instrument.

Unbiased Test

The unbiased test is a test to determine whether there is a biased instrument or not from the results of the dynamic panel data estimation method using the Generalized Method of Moment (GMM) method (Zuhroh, 2021).

Table 4.6
Unbiased Test Results of First Differences Generalized Method of Moment (FD-GMM) Method

Variables	fem	fdgmm	pls
lkd L1.	.06494448	-.09325945	.84745479***
pbh	-.11932443	-.07565856	-.01888649
car	-.45131733	-.6906464*	-.18912915
roa	.01021197	.06124853	.07633457
npf	.4593508	.13822607	.02910437
size	6.9067482	.7639296	8.5734088
_cons	-11.869516	-3.7033304	-12.934817
N	42	33	42
Legend: * p<0.05; ** p<0.01; *** p<0.001			

Source: Data processed by STATA 17, 2024

In this research the lag of the dependent variable is symbolized by (lkd L1). Based on the unbiased test results of the First Differences Generalized Method of Moment (FD-GMM) method above, it can be seen that the lag coefficient value of the dependent variable in the FEM test is 0,06494448, the lag coefficient value of the dependent variable in the FD-GMM test is -0,09325945, and The PLS test dependent variable lag coefficient value is 0,84745479, meaning that the FD-GMM test does not have a dependent variable lag coefficient value that is between the FEM test dependent variable lag coefficient value and the PLS test dependent variable lag coefficient value, so the instrument is said to be biased. The lag coefficient value of the dependent variable in the FD-GMM test is -0,09325945, which is below the lag coefficient value of the dependent variable in the FEM test of 0,06494448, so the instrument is biased downwards. Thus it can be said that the results of the unbiased test of the FD-GMM method have a biased instrument.

System Generalized Method of Moment (SYS-GMM) Test

Test System Generalized Method of Moment (SYS-GMM) is a method used to estimate a

system of equations by combining the first difference condition moment and the level condition moment (Utami, 2019). There are the best criteria for the results of the dynamic panel data estimation method using the GMM method, namely having a valid, consistent and unbiased instrument (Zuhroh, 2021).

Table 4.7
System Generalized Method of Moment (SYS-GMM) Test Results

lkd	Coefficient	Std. err.	z	P> z	[95% conf. interval]
lkd L1.	.5893418	.2292515	2.57	0.010	.1400171 1.038666
pbh	-.0565842	.1900366	-0.30	0.766	-.4290492 .3158808
car	-.5939407	.3757702	-1.58	0.114	-1.330437 .1425553
roa	.1258096	.0657735	1.91	0.056	-.0031041 .2547233
npf	.3647101	.3327589	1.10	0.273	-.2874854 1.016906
size	18.62637	11.73169	1.59	0.112	-4.367314 41.62006
_cons	-27.95236	17.57263	-1.59	0.112	-62.39408 6.489355
Wald chi2(6) = 29.21					
Prob > chi2 = 0.0001					

Source: Data processed by STATA 17, 2024

Based on the Sargan test results, the SYS-GMM test has a valid instrument. Based on the Arellano-Bond test results, the SYS-GMM test has a consistent instrument. Based on the unbiased test results, the SYS-GMM test has an unbiased instrument. Thus, it can be said that the SYS-GMM test has the best criteria for the estimation method results because it has a valid, consistent and unbiased instrument.

Validity Test

Validity test is a test to find out whether there is a relationship or not between the instrument and the error component. The test used to test the validity test is the Sargan test (Zuhroh, 2021).

Table 4.8
System Generalized Method of Moment (SYS-GMM) Sargan Test Results

chi2(13)	13.46089
Prob > chi2	0.4129

Source: Data processed by STATA 17, 2024

Based on the results of the Sargan test using the System Generalized Method of Moment (SYS-GMM) method above, it can be seen that the Chi-Square probability value is 0,4129, meaning the Chi-Square probability value is more than 0,05, then H_0 is accepted, meaning the Sargan test has no correlation. between the instrument and the error component, the instrument can be said to be valid. Thus it can be said that the results of the Sargan test using the SYS-GMM method have a valid instrument.

Consistency Test

The consistency test is a test to determine whether there is an autocorrelation problem or not

from the results of the dynamic panel data estimation method using the Generalized Method of Moment (GMM) method. The test used to test the consistency test is the Arellano-Bond test (Zuhroh, 2021). A two-step estimator with robust standard-errors is required before carrying out the Arellano-Bond test (Juanda, 2021). The test used to test robust standard errors is the Wald test.

Table 4. 9
Wald Test Results System Generalized Method of Moment (SYS-GMM) Method

lkd	Coefficient	Robust std. err.	z	P> z	[95% conf. interval]
lkd L1.	.5893418	.3078884	1.91	0.056	-.0141083 1.192792
pbh	-.0565842	.2970652	-0.19	0.849	-.6388213 .5256529
car	-.5939407	.4457323	-1.33	0.183	-1.46756 .2796786
roa	.1258096	.0447786	2.81	0.005	.0380452 .2135741
npf	.3647101	.2858586	1.28	0.202	-.1955623 .9249826
size	18.62637	9.867504	1.89	0.059	-.7135804 37.96632
_cons	-27.95236	15.07604	-1.85	0.064	-57.50085 1.596129
Wald chi2(6) = 421.66					
Prob > chi2 = 0.0000					

Source: Data processed by STATA 17, 2024

Based on the wald test results of the System Generalized Method of Moment (SYS-GMM) method above, it can be seen that the Chi-Square probability value is 0,0000, meaning that the Chi-Square Probability value is less than 0,05, then H_0 is rejected, meaning that the wald test does not have biased instruments from the results of the dynamic panel data estimation method with the GMM method. Thus it can be said that the results of the Wald test of the SYS-GMM method have unbiased instruments.

Table 4.10
Arellano-Bond Test Results System Generalized Method of Moment (SYS-GMM)

Order	z	Prob > z
1	-1.952	0.0509
2	-.27933	0.7800

Source: Data processed by STATA 17, 2024

Based on the results of the Arellano-Bond test using the System Generalized Method of Moment (SYS-GMM) method above, it can be seen that the Z-Score probability value is 0,7800, meaning the Z-Score probability value is more than 0,05, then H_0 is accepted, meaning the Arellano-Bond test there is no autocorrelation problem from the results of the dynamic panel data estimation method using the GMM method, so the instrument can be said to be consistent. Thus, it can be said that the results of the Arellano-Bond test using the SYS-GMM method have a consistent instrument.

Unbiased Test

The unbiased test is a test to determine whether there is a biased instrument or not from the results of the dynamic panel data estimation method using the Generalized Method of Moment (GMM) method (Zuhroh, 2021).

Table 4.11
Unbiased Test Results System Generalized Method of Moment (SYS-GMM) Method

Variables	fem	fdgmm	sysgmm	pls
lkd L1.	.06494448	-.09325945	.58934179	.84745479***
pbh	-.11932443	-.07565856	-.05658421	-.01888649
car	-.45131733	-.6906464*	-.59394074	-.18912915
roa	.01021197	.06124853	.12580961**	.07633457
npf	.4593508	.13822607	.36471014	.02910437
size	6.9067482	.7639296	18.626372	8.5734088
_cons	-11.869516	-3.7033304	-27.952361	-12.934817
N	42	33	42	42
Legend: * p<0.05; ** p<0.01; *** p<0.001				

Source: Data processed by STATA 17, 2024

In this research the lag of the dependent variable is symbolized by (lkd L1). Based on the unbiased test results of the System Generalized Method of Moment (SYS-GMM) method above, it can be seen that the lag coefficient value of the dependent variable in the FEM test is 0,06494448, the lag coefficient value of the dependent variable in the SYS-GMM test is 0,58934179, and the coefficient value The PLS test dependent variable lag is 0,84745479, meaning that the SYS-GMM test has a dependent variable lag coefficient value that is between the FEM test dependent variable lag coefficient value and the PLS test dependent variable lag coefficient value, so the instrument can be said to be unbiased. Thus it can be said that the results of the unbiased test of the SYS-GMM method have an unbiased instrument.

Partial Test

The partial test is a test carried out in a regression model to find out what independent variables influence the dependent variable individually (Nurdin, 2014).

Table 4.12
Partial Test Results

lkd	Coefficient	Robust std. err.	z	P> z	[95% conf. interval]
lkd L1.	.5893418	.3078884	1.91	0.056	-.0141083 1.192792
pbh	-.0565842	.2970652	-0.19	0.849	-.6388213 .5256529
car	-.5939407	.4457323	-1.33	0.183	-1.46756 .2796786
roa	.1258096	.0447786	2.81	0.005	.0380452 .2135741
npf	.3647101	.2858586	1.28	0.202	-.1955623 .9249826
size	18.62637	9.867504	1.89	0.059	-.7135804 37.96632
_cons	-27.95236	15.07604	-1.85	0.064	-57.50085 1.596129
Wald chi2(6) = 421.66					

Prob > chi2 = 0.0000

Source: Data processed by STATA 17, 2024

The following is the interpretation of the partial test results above:

1. Profit-sharing financing symbolized by (pbh) has a Z-Score probability value of 0,849, which indicates that the Z-Score probability value is more than 0,05, then H_0 is accepted, meaning that the independent variable partially has an insignificant influence on the dependent variable. Thus, it can be said that profit-sharing financing does not have a significant effect on the liquidity of Islamic commercial banks in Indonesia.
2. Capital adequacy is measured by the Capital Adequacy Ratio (CAR) which is symbolized by (car) which has a Z-Score probability value of 0,183 which indicates that the Z-Score probability value is more than 0,05, then H_0 is accepted meaning that the independent variable partially has an influence which is not significant for the dependent variable. Thus, it can be said that capital adequacy does not have a significant effect on the liquidity of Islamic commercial banks in Indonesia.
3. Profitability is measured by Return on Assets (ROA) which is symbolized by (roa) which has a Z-Score probability value of 0,005 which indicates that the Z-Score probability value is less than 0,05, then H_0 is rejected, meaning that the independent variable partially has a significant influence. significant to the dependent variable. Thus, it can be said that profitability has a significant effect on the liquidity of Islamic commercial banks in Indonesia.
4. Financing risk is measured by Non-Performing Financing (NPF) which is symbolized by (npf) which has a Z-Score probability value of 0,202 which indicates that the Z-Score probability value is more than 0,05, then H_0 is accepted meaning that the independent variable partially has insignificant influence on the dependent variable. Thus, it can be said that financing risk does not have a significant effect on the liquidity of Islamic commercial banks in Indonesia.
5. The bank size symbolized by (size) has a Z-Score probability value of 0,059, which indicates that the Z-Score probability value is more than 0,05, then H_0 is accepted, meaning that the independent variable partially has an insignificant influence on the dependent variable. Thus, it can be said that bank size does not have a significant effect on the liquidity of Islamic commercial banks in Indonesia.

Simultaneous Test

The simultaneous test is a test carried out in a regression model to find out whether all independent variables influence the dependent variable together or not (Nurdin, 2014).

Table 4.13
Simultaneous Test Results

lkd	Coefficient	Robust std. err.	z	P> z	[95% conf. interval]
lkd L1.	.5893418	.3078884	1.91	0.056	-.0141083 1.192792
pbh	-.0565842	.2970652	-0.19	0.849	-.6388213 .5256529
car	-.5939407	.4457323	-1.33	0.183	-1.46756 .2796786
roa	.1258096	.0447786	2.81	0.005	.0380452 .2135741

npf	.3647101	.2858586	1.28	0.202	-.1955623	.9249826
size	18.62637	9.867504	1.89	0.059	-.7135804	37.96632
_cons	-27.95236	15.07604	-1.85	0.064	-57.50085	1.596129
Wald chi2(6) = 421.66						
Prob > chi2 = 0.0000						

Source: Data processed by STATA 17, 2024

Based on the simultaneous test results above, it can be seen that the Chi-Square probability value is 0,0000 which indicates that the Chi-Square probability value is less than 0,05, then H_0 is rejected, meaning that the independent variables simultaneously have a significant effect on the dependent variable. Thus it can be said that profit-sharing financing, capital adequacy, profitability, financing risk, and bank size together have a significant effect on the liquidity of Islamic commercial banks in Indonesia.

Cointegration Test

The cointegration test is a test to determine the long-term relationship between the independent variable and the dependent variable (Suwanto, 2023).

Table 4.14
Cointegration Test Results

lkd	Coefficient	Std. err.	z	P> z	[95% conf. interval]
_nl_1	-.1377891	.6268366	-0.22	0.826	-1.366366 1.090788
_nl_2	-1.446314	.721637	-2.00	0.045	-2.860697 -.0319315
_nl_3	.3063609	.2162208	1.42	0.157	-.1174241 .7301458
_nl_4	.8881112	1.195361	0.74	0.458	-1.454753 3.230975
_nl_5	45.35736	28.1808	1.61	0.108	-9.876002 100.5907

Source: Data processed by STATA 17, 2024

The following is the interpretation of the cointegration test results above:

1. Profit-sharing financing symbolized by (_nl_1) has a Z-Score probability value of 0,826, which indicates that the Z-Score probability value is more than 0,05, so every increase in the value of the independent variable will decrease the value of the dependent variable. Thus, it can be said that every increase in the value of profit-sharing financing will reduce the liquidity value of Islamic commercial banks in Indonesia.
2. Capital adequacy is measured by the Capital Adequacy Ratio (CAR) which is symbolized by (_nl_2) which has a Z-Score probability value of 0,045 which indicates that the Z-Score probability value is less than 0,05, so every increase in the independent variable value will increase the variable value bound. Thus, it can be said that every increase in the capital adequacy value will increase the liquidity value of Islamic commercial banks in Indonesia.
3. Profitability is measured by Return on Assets (ROA) which is symbolized by (_nl_3) which has a Z-Score probability value of 0,157, which indicates that the Z-Score probability value is more than 0,05, so every increase in the value of the independent variable will decrease the value of the dependent variable. Thus, it can be said that every increase in profitability value will reduce the liquidity value of Islamic commercial banks in Indonesia.

4. Financing risk is measured by Non-Performing Financing (NPF) which is symbolized by (_nl_4) which has a Z-Score probability value of 0,458 which indicates that the Z-Score probability value is more than 0,05, so every increase in the value of the independent variable will decrease the value dependent variable. Thus, it can be said that every increase in the value of financing risk will reduce the liquidity value of Islamic commercial banks in Indonesia.
5. The bank size symbolized by (_nl_5) has a Z-Score probability value of 0,108, which indicates that the Z-Score probability value is more than 0,05, so every increase in the value of the independent variable will decrease the value of the dependent variable. Thus, it can be said that every increase in bank size will reduce the liquidity value of Islamic commercial banks in Indonesia.

Convergence Speed Test

The convergence speed test is a test to determine the speed of decreasing the gap in the dependent variable every year (Hidayat, 2024).

Table 4.15
Convergence Speed Test Results

. display -log(.5893418)
.52874896

Source: Data processed by STATA 17, 2024

Based on the results of the convergence speed test above, it can be seen that the convergence speed value is 0,52874896 or 52%, which indicates that the results of the dynamic panel data estimation method using the GMM method chosen have a lag coefficient value of the dependent variable which is away from zero, so the speed of decreasing the variable gap tied can be said to be fast every year. Thus, it can be said that the results of the dynamic panel data estimation method using the System Generalized Method of Moment (SYS-GMM) method have a lag coefficient value of the dependent variable which is away from zero, meaning that the speed of decreasing the liquidity gap in Islamic commercial banks in Indonesia can be said to be fast with a speed of 52% every year.

Discussion

The Effect of Profit-Sharing Financing on Liquidity of Islamic Commercial Banks in Indonesia

In this research, the results show that profit-sharing financing does not have a significant effect on the liquidity of Islamic commercial banks in Indonesia. The results of this research are in line with research by Asri (2016). Thus, it can be said that the level of profit-sharing financing will not affect the liquidity of Islamic banks. Profit-sharing financing does not have a significant effect on the liquidity of sharia banks because the amount of financing disbursed by sharia banks to customers does not depend on the high level of liquidity owned by sharia banks, but the amount of financing disbursed by sharia banks to customers depends on the type of financing disbursed and the amount of capital owned by sharia banks (Asri, 2016).

The Effect of Capital Adequacy on Liquidity of Islamic Commercial Banks in Indonesia

In this research, capital adequacy is measured by the Capital Adequacy Ratio (CAR). In this research,

the results show that capital adequacy does not have a significant effect on the liquidity of Islamic commercial banks in Indonesia. The results of this research are in line with Prastiwi's (2021) research. Thus, it can be said that the high or low CAR value will not affect the liquidity of Islamic banks. CAR does not have a significant effect on the liquidity of sharia banks because sharia banks do not optimize the capital they have. The capital owned by sharia banks is not used to finance bank liquidity and sharia banks tend to use their capital to carry out bank operational activities such as distributing financing to customers. The decision of sharia banks to only use their capital to carry out bank operational activities and not use it to finance bank liquidity is so that the CAR value owned by sharia banks remains at the normal limit determined by Bank Indonesia Regulation Number 10/15/PBI/2008 article 2 paragraph 1, namely not less than 8% (Septiana, 2022). In this research, the average CAR value for Islamic commercial banks in Indonesia is 29.83%, meaning that the CAR value for Islamic commercial banks in Indonesia is still considered safe because it is not less than 8%.

The Effect of Profitability on Liquidity of Islamic Commercial Banks in Indonesia

In this research, profitability is measured by Return on Assets (ROA). In this research, the results show that profitability has a significant effect on the liquidity of Islamic commercial banks in Indonesia. The results of this research are in line with research by Akhtar (2011). Thus, it can be said that the higher the ROA value, the higher the liquidity of Islamic banks and vice versa. A sign that a bank can provide sufficient liquidity is when a bank can generate profits. An increase in profitability shows that bank profits are increasing. Increasing bank profits cause banks to have the ability to generate large amounts of cash and cash equivalents which can function to finance bank liquidity (Anggraeni, 2022). The results of this research are in accordance with the theory used.

The Effect of Financing Risk on Liquidity of Islamic Commercial Banks in Indonesia

In this research, financing risk is measured by Non-Performing Financing (NPF). In this research, the results show that financing risk does not have a significant effect on the liquidity of Islamic commercial banks in Indonesia. The results of this research are in line with research by Masruroh (2018). Thus, it can be said that the high or low NPF value will not affect the liquidity of Islamic banks. NPF does not have a significant effect on the liquidity of Islamic banks because NPF and liquidity are relatively homogeneous, meaning that NPF and liquidity have certain value limits from the applicable regulations so that the existing figures will always be kept below the regulatory limits. In addition, all Islamic commercial banks in Indonesia have NPF values that comply with Bank Indonesia regulations. Based on Bank Indonesia regulations, the normal limit for the NPF value of sharia commercial banks in Indonesia is not to exceed 5% (Aulia, 2019). In this research, the average NPF value at Islamic commercial banks in Indonesia is 3.32%, meaning that the NPF value at Islamic commercial banks in Indonesia is still considered safe because it does not exceed 5%.

The Effect of Bank Size on Liquidity of Islamic Commercial Banks in Indonesia

In this research, the results show that bank size does not have a significant effect on the liquidity of Islamic commercial banks in Indonesia. The results of this research are in line with Amalia's (2017) research. Thus, it can be said that the size of the bank will not affect the liquidity of Islamic banks. Bank size does not have a significant effect on the liquidity of Islamic banks because the size of the assets owned by a bank cannot guarantee that the bank has good liquidity and is free from liquidity risks that may occur. Low liquidity risk can be achieved by banks with good liquidity management so that with better management of liquidity, banks can minimize liquidity risk (Amalia, 2017).

2. CONCLUSION

Based on data analysis and discussion of “The Effect of Profit-sharing Financing, Capital Adequacy, Profitability, Financing Risk, and Bank Size on Liquidity of Islamic Commercial Banks in Indonesia”, the following conclusions can be drawn:

1. Profit-sharing financing has no significant effect on the liquidity of Islamic commercial banks in Indonesia.
2. Capital adequacy has no significant effect on the liquidity of Islamic commercial banks in Indonesia.
3. Profitability has a positive and significant effect on the liquidity of Islamic commercial banks in Indonesia.
4. Financing risk has no significant effect on the liquidity of Islamic commercial banks in Indonesia.
5. Bank size has no significant effect on the liquidity of Islamic commercial banks in Indonesia.

Research Limitations

In this research, there are limitations to the research, namely as follows:

1. The research sample used is only 10 Islamic commercial banks from the research population used, namely 15 Islamic commercial banks registered with the Otoritas Jasa Keuangan (OJK) in 2024.
2. The research time used only covers 6 years, from 2017 to 2022.
3. This research only uses 5 independent variables, namely profit-sharing financing, capital adequacy, profitability, financing risk, and bank size.

Advice

Based on the conclusions and limitations of the research, the researcher will provide suggestions to several parties as follows:

1. For Islamic Commercial Banks

Based on the liquidity value, Islamic banks are better than conventional banks. However, there are still suboptimal financial performance of Islamic banks such as profitability ratio (ROA) and financing risk ratio (NPF). Therefore, Islamic banks are expected to maintain liquidity in ideal conditions and improve financial performance. In order for financial performance to improve, Islamic banks need to pay attention to the following points:

- a. Profitability ratio (ROA) can be improved by paying more attention to managing Islamic bank assets properly, so that the profits generated will increase.
 - b. The financing risk ratio (NPF) can be improved by paying more attention to the financing channeled by Islamic banks to customers, so as to reduce the risk of losses due to non-performing financing.
2. For Investors

Based on the liquidity value, Islamic banks are better than conventional banks. The high liquidity value indicates that Islamic banks are able to fulfill their short-term obligations in a short time. This can be a positive signal for the management of Islamic banks in attracting investors who are interested in investing capital in Islamic banks.

3. For Future Researchers

- a. Can add more research samples than the research samples used in this research such as using a

sample of 12 Islamic commercial banks.

- b. Can add more research time than the research time used in this research such as using a research time of 9 years.
- c. Can add other independent variables from the independent variables used in this research such as using macroeconomic variables (inflation, Gross Domestic Product (GDP), benchmark bank interest rates (BI rate), and the Rupiah exchange rate against the Dollar).

3. REFERENCES

- Addou, K. I., & Bensghir, A. (2021). Analysis of the Determinants of Bank Liquidity Risk: The Case of Islamic Banks in the UAE. *SHS Web of Conferences*, Vol. 119, No. 01008, 1-9.
- Agustuty, L., & Ruslan, A. (2019). Determinants of Capital Buffer in the Banking Industry in Indonesia. *Movere journal*, Vol. 1, No. 2, 164-174.
- Akhtar, M. F., Ali, K., & Sadaqat, S. (2011). Liquidity Risk Management: A Comparative Research Between Conventional and Islamic Banks of Pakistan. *Interdisciplinary Journal of Research in Business*, Vol. 1, No. 1, 35-44.
- Al-Harbi, A. (2017). Determinants of Banks Liquidity: Evidence from OIC Countries. *Journal of Economic and Administrative Sciences*, Vol. 33, No. 2, 164-177.
- Al-Harbi, A. (2020). Determinates of Islamic Banks Liquidity. *Journal of Islamic Accounting and Business Research*, Vol. 11, No. 8, 1619-1632.
- Amalia, R. I. (2017). The Effect of Minimum Capital Adequacy, Profitability and Bank Size on Islamic Banking Liquidity Risk, Thesis, Department of Economics, Accounting Research Program, State University of Jakarta, Jakarta.
- Amanah, R., Atmanto, D., & Azizah, D. F. (2014). The Effect of Liquidity Ratios and Profitability Ratios on Share Prices (Study of LQ45 Index Companies for the 2008-2012 Period). *Journal of Business Administration (JAB)*, Vol. 12, no. 1, 1-10.
- Anggraeni, & Berniz, Y. M. (2022). The Effect of Asset Quality, Profit and Loss Sharing on Sharia Banking Liquidity in Indonesia. *Technium Social Sciences Journal*, Vol. 27, 423-436.
- Ardiansari, A. (2016). The Effect of Third Party Funds, Non-Performing Financing, Capital Adequacy Ratio and Return on Assets, on Liquidity Level. *Management Analysis Journal*, Vol. 5, No. 1, 7-16.
- Asri, A. S., & Syaichu, M. (2016). Analysis of Factors Affecting Profit-Sharing Based Financing in Islamic Banking in Indonesia for the Period 2010-2014. *Diponegoro Journal of Management*, Vol. 5, No. 3, 573-587.
-

- Aulia, S., & Isgiyarta, J. (2019). Analysis of the Effect of Placement with Bank Indonesia, Murabahah Financing and Non-Performing Financing Ratio on Liquidity of Islamic Commercial Banks (Empirical Research on Islamic Commercial Banks in Indonesia in 2013-2017). *Diponegoro Journal of Accounting*, Vol. 8, No. 4, 1-10.
- Bimantoro, N. K., & Ardiansah, M. N. (2019). Analysis of the Effect of Capital Adequacy Ratio (CAR), Return on Asset (ROA), Non-Performing Financing (NPF), and Financing to Deposit Ratio (FDR) on Profit Growth at Islamic Commercial Banks in Indonesia for the Period 2013- 2017. *Journal of Economic Science and Islamic Banking*, Vol. 8, No. 2, 16-35.
- Gogo, T. L., & Arundina, T. (2021). Analysis of Factors Affecting Liquidity Risk in Indonesian Islamic Banking. *International Journal of Business and Economy*, Vol. 3, No. 1, 98-114.
- Hamid, S. R. (2020). *Practical Guide to Econometrics Basic Concepts and Applications Using Eviews 10*. Banten: CV. AA. Rizky.
- Hidayat, A. (2024). Dynamic Panel Data (DPD) or GMM with STATA: Tutorial. Accessed April 17, 2024. <https://www.statistikian.com/2024/01/data-panel-dinamis-dpd-atau-gmm-dengan-stata-tutorial.html>.
- Hidayati, N. L. (2014). The Effect of Sale and Purchase Financing, Production Sharing Financing, Lease Financing, and Non-Performing Financing Ratio on Liquidity of Islamic Commercial Banks in Indonesia, Thesis, Department of Economics, Accounting Research Program, State Islamic University (UIN) Maulana Malik Ibrahim Malang, Malang.
- Ichwan, M. C., & Ryandono, M. N. H. (2016). Factors Affecting the Liquidity of Islamic Banks. *Journal of Islamic Economics Theory and Applied*, Vol. 3, No. 2, 144-157.
- Jedidia, K. B. (2020). Profit-and Loss-Sharing Impact on Islamic Bank Liquidity in GCC Countries. *Journal of Islamic Accounting and Business Research*, Vol. 11, No. 9, 1791-1806.
- Juanda, B. (2021). Dynamic Panel Data Model. Accessed April 17, 2024. <https://bambangjuanda.com/wp-content/uploads/2021/09/Model-Data-Panel-Dinamis BJ.pdf>.
- Lesta, V. (2022). The Effect of Profit-sharing Ratio, Equitable Distribution Ratio, and Return on Asset on Third Party Funds at Islamic Commercial Banks for the 2010-2021 Period, Thesis, Department of Economics and Islamic Business,

- Sharia Banking Research Program, State Islamic University (UIN) Raden Intan Lampung, Lampung.
- Masruroh, M. (2018). Analysis of Factors Affecting Islamic Banking Liquidity in Indonesia (2011- 2016), Thesis, Department of Economics, Accounting Research Program, Islamic University of Indonesia Yogyakarta, Yogyakarta.
- Meliana, M., Jeandry, G., & Taher, J. (2022). The Effect of Company Size, Profitability, Leverage and Liquidity on the Disclosure of Islamic Social Reporting (ISR) in Islamic Commercial Banks in Indonesia in 2015-2019. *Journal of TRUST Accounting Research*, Vol. 9, No. 2, 1-13.
- Muharam, H. (2012). The Effect of Fundamental Factors to Liquidity Risk on Banking Industry: Comparative Research Between Islamic Bank and Conventional Bank in Indonesia. *Conference in Business, Accounting and Management (CBAM)*, Vol. 1, No. 1, 359-368.
- Najah, S. N. (2023). The Effect of Liquidity, Leverage, and Company Size on Financial Distress (Empirical Research on Infrastructure Companies listed on the IDX for the 2019-2021 Period), Thesis, Department of Economics and Business, Accounting Research Program, Muhammadiyah Purwokerto University, Purwokerto.
- Novianti, M. (2019). Analysis of Differences in Financial Performance of Islamic Banks and Conventional Banks Using CAMEL Ratios. *Journal of Fairness*, Vol. 9, No. 2, 127-136.
- Nuridin, N. N., Raupong, R., & Islamiyati, A. (2014). The Use of Robust Regression on Data Containing Outliers with the Moment Method. *Journal of Mathematics, Statistics and Computing*, Vol. 10, No. 2, 114-123.
- Nurhayati, S. (2009). *Sharia Accounting in Indonesia*. Jakarta: Salemba Empat.
- Pandu, M. J. (2016). Modeling the Percentage of Poverty in East Nusa Tenggara Province Using Spatial Econometric Models with Dynamic Panel Data, Thesis, Department of Mathematics and Natural Sciences, Statistics Study Program, Sepuluh Nopember Institute of Technology, Surabaya.
- Prastiwi, I. E., Tho'in, M., & Kusumawati, O. A. (2021). Internal Factors Affecting the Liquidity of Islamic Banks: Analysis of Capital Adequacy Ratio (CAR), Third Party Funds (DPK), Non- Performing Financing (NPF). *Scientific Journal of Islamic Economics*, Vol. 7, No. 2, 1107-1116.
-

- Rachman, R. A., Yulianto, A., & Utaminingsih, N. S. (2013). The Effect of Profit Sharing, Interest, Bank Size and Number of Branches on Mudharabah Deposits. *Accounting Analysis Journal*, Vol. 2, No. 4, 413-422.
- Rahmani, N. A. B. (2017). Analysis of the Effect of Capital Adequacy Ratio (CAR) and Financing to Deposit Ratio (FDR) on Return on Asset (ROA) and Return on Equity (ROE) in Islamic Commercial Bank Companies in Indonesia. *Journal of Economics and Business*, Vol. 4, No. 2, 299-316.
- Rufaidah, I. K., Djuwarsa, T., & Danisworo, D. S. (2021). The Effect of DPK, CAR, BOPO, and NPF on Liquidity in Islamic Commercial Banks. *Journal of Applied Islamic Economics and Finance*, Vol. 2, No. 1, 187-197.
- Safitri, V. I., & Hendrani, A. (2020). The Effect of Capital Adequacy Ratio (CAR), Non-Performing Financing (NPF), Financing to Deposit Ratio (FDR) and Operational Efficiency (BOPO) on Profitability (Return on Assets) at Islamic Commercial Banks registered with Bank Indonesia. *JCA Economics*, Vol. 1, No. 1, 252-264.
- Samsurin, U. (2017). The Effect of Sharia Bank Indonesia Certificates, Statutory Reserves, and Profit-Sharing Financing on the Liquidity of Islamic Commercial Banks in Indonesia (2011-2015 Period), Thesis, Department of Economics and Business, Sharia Banking Research Program, Syarif Hidayatullah State Islamic University Jakarta, Jakarta.
- Sastrawan, R., Saputra, E., & Pratiwi, N. (2023). Determinants of Profitability with Loan to Deposit Ratio as Moderating Variable. *Journal of Accounting and Finance*, Vol. 11, No. 1, 57-64.
- Sukmana, R., & Suryaningtyas, S. (2016). Determinants of Liquidity Risk in Indonesian Islamic and Conventional Banks. *Journal of Sharia Economics*, Vol. 8, No. 2, 187-200.
- Suwanto, I., Zaman, B., & Faisol, F. (2023). Causality Analysis of Regular Sales and Consignment Sales and Cost of Goods Sold to Profit at K-24 Gurah Pharmacy. *Management and Business Symposium II*, Vol. 2, 1297- 1306.
- Utami, N. P. M., Sumarjaya, I. W., & Srinadi, I. G. A. M. (2019). Modeling Rice Availability Ratio Using Dynamic Panel Data Regression. *E-Journal of Mathematics*, Vol. 8, No. 3, 199-203.
- Widyarti, E. T., Widyakto, A., & Suhardjo, Y. (2022). Analysis of the Effect of Non-Performing Loan, Return on Assets, Return on Equity and Size on Banking Liquidity Risk (Case Research on Conventional Banks Registered in IDX

Period 2016-2020). *Journal of Management Dynamics (JDM)*, Vol. 13, No. 1, 78-86.

Yushinta, R., Rusdi, M., & Desiana, L. (2020). The Role of Capital Adequacy on the Effect of Financing Risk and Liquidity on Profitability (Research on Islamic Commercial Banks for the 2016-2018 Period). *Al-Qardh Journal*, Vol. 5, No. 2, 99-118.

Zainuri, H. (2016). The Difference in Liquidity of Islamic Banks Before and After the Super Visory Action Policy of the Otoritas Jasa Keuangan on Limiting Deposit Interest Rates of Conventional Banks. *Journal of Akad*, Vol. 1, No. 1, 22-41.

Zuhroh, I., & Amir, F. (2021). *Econometrics With Eviews Software*. Malang: UMMPress.