



# THE INFLUENCE OF PROBLEM FINANCING AND LIQUIDITY ON THE PROFITABILITY OF SHARIA BUSINESS UNITS (PERIOD 2018-2022)

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## ABSTRACT

The background to this research is that the profitability (ROA) of sharia business units (UUS) is influenced by the size of non-performing financing and liquidity, but there is also the size of profitability (ROA) of sharia business units which is influenced by the size of non-performing financing and liquidity. influenced by many other factors. This can be seen from the low liquidity (FDR) in 2021, so ROA increased, but in other years, FDR increased in 2022, ROA also increased, as did NPF in 2019, so ROA increased. Therefore, the aim of this research is to determine the effect of non-performing financing and liquidity on the profitability of sharia business units (UUS) for the 2018-2022 period, both partially and simultaneously. The research used in this research is a quantitative method, the data used is secondary data, namely quarterly financial reports for the 2018-2022 period obtained from the official OJK (Financial Services Authority) website. The population in this research is Sharia Business Units in Indonesia and the sample uses purposive sampling so that there are 3 Sharia Business Units as samples, namely PT Bank Tabungan Negara, PT BPD Yogyakarta, and PT BPD DKI. The data analysis method used is panel data regression analysis for research data processing using the Eviews version 12 statistical test tool. Hypothesis tests carried out are the F test, t test, and Adjusted R<sup>2</sup> coefficient of determination. The results of the partial hypothesis testing

research are that the problem financing variable has a significant negative effect on profitability, while liquidity has a significant positive effect on the profitability of sharia business units (UUS) for the 2018-2022 period. Simultaneously (f test) shows that simultaneously the NPF and FDR variables have a significant effect on ROA. This means that NPF and FDR contribute to the profitability of the Sharia Business Unit. The results of the R<sup>2</sup> determination test show that the profitability variable is influenced by the problematic financing and liquidity variables by 69.53%, while the remaining 30.47% is influenced by other variables outside this regression equation or variables that are not studied.

## 1. INTRODUCTION

The financial sector, including banking institutions, has an important role in the Indonesian economy, playing an active role in improving the country's economic conditions. The banking sector provides financing to companies and individuals to encourage economic growth, which contributes to improving societal welfare. According to Law of the Republic of Indonesia Number 10 of 1998 concerning the banking sector, banking refers to all matters related to financial institutions such as banks, including institutions, business activities, as well as the methods and processes used in carrying out these business activities. Meanwhile, banks are business entities that collect public funds as savings and channel them to the community as loans and alternative methods to improve or develop the welfare of many people (Janrosli & Yuliani, 2017).

Sharia business units rely on financing as the main source of income, which will affect the level of profitability of the financial institution. Therefore, sharia business units need to have the ability to channel financing efficiently in order to maintain healthy liquidity (Suwanto & Karnil, 2021). The ability of sharia business units to fulfill short-term obligations can be reflected through their liquidity indicators. In the context of assets, the liquidity of a sharia business unit reflects the ability to convert assets into cash. On the other hand, when viewed from a passive perspective, liquidity refers to the capacity of a sharia business

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unit to meet needs through increasing its liability portfolio. In general, liquidity has an important role in carrying out daily business transactions. Apart from that, liquidity also plays a role in overcoming urgent funding needs and meeting customer requests for financing. Apart from that, liquidity also provides flexibility for sharia business units to obtain profitable investment opportunities (Sudarsono et al., 2018)

Table 1  
Sharia Business Unit Performance in the 2018-2022 Financial Ratio Report

Tahun	Unit Usaha Syariah		
	NPF%	FDR%	ROA%
2018	1,39	103,22	2,24
2019	1,89	101,93	2,04
2020	1,93	96,01	1,81
2021	1,11	89,56	2,05
2022	0,97	95,40	1,69

Source: Financial Services Authority (OJK), 2018-2022

It can be observed that the ROA of the Sharia Business Unit (UUS) in 2018 reached 2.24%, but decreased to 2.04% in the following year, namely 2019. In 2020, there was a further decrease to 1.81%. However, there was an increase in 2021 to 2.05%, but in 2022, ROA experienced a significant decrease to 1.69%. The NPF variable in 2018 to 2020 experienced an increase, then in 2021 and 2022 it experienced a significant decrease. This is different from the FDR variable, where in 2018-2021 there was a decrease, but in 2022 there was an increase. From the explanation above, it can be concluded that the NPF, FDR and ROA variables experience decreases and increases every year. So the achievements obtained show that the profitability of Sharia Business Units (UUS) is determined by problematic financing and liquidity, however, the size of profitability (ROA) is influenced by a number of other variables.

A study conducted by Medina Almunawwaroh and Rina Marlina, found that the level of liquidity (FDR) has a positive and significant effect on the level of profitability (ROA), while the level of non-performing financing (NPF) has a negative and important impact on the level of profitability (ROA) (Almunawwaroh & Marlina, 2018). Another study conducted by Megawati concluded that FDR influences ROA, while NPF has no influence on ROA. (Megawati, 2019). Based on these findings, additional research is needed that will attract the interest of researchers to study this topic with the title: "The Effect of Problematic Financing and Liquidity on the Profitability of Sharia Business Units for the 2018-2022 Period"

## 2. METHODS

This type of research is associative quantitative, the population in this research is all Sharia Business Units in the 2018-2022 period with sampling using purposive sampling, 3 Sharia Business Units will be sampled, namely: PT. Aceh Syariah Bank, PT. State Savings Bank, PT. BPD Yogyakarta and PT. BPD DKI. The data sources in this research were obtained from each financial report website published by the financial services authority (OJK) with data collection techniques, namely secondary data documentary techniques by taking data in the form of financial reports. The data analysis method uses Panel Data Regression using the Eviews-12 application.

## 3. RESULTS AND DISCUSSIONS

### Descriptive Statistics Results

Table 2  
Results of Descriptive Statistical Analysis

	NPF	FDR	ROA
Mean	1.244333	124.8123	3.059167
Median	0.645000	112.0950	3.420000
Maximum	5.440000	338.5200	6.670000
Minimum	0.000000	0.960000	0.010000
Std. Dev.	1.516360	56.77137	1.972701
Skewness	1.545975	1.853326	-0.006074
Kurtosis	4.015683	8.415375	1.681428
Jarque-Bera	26.47941	107.6639	4.346949
Probability	0.000002	0.000000	0.113782
Sum	74.66000	7488.740	183.5500
Sum Sq. Dev.	135.6615	190156.3	229.6015
Observations	60	60	60

Source: Eviews 12 Output Results, Data processed, 2023

Below is presented information related to the descriptive statistics table mentioned previously:

- The previous table shows that if the Non Performing Finance (NPF) variable has a minimum value of 0.00%, the maximum value is 5.44%, the average value (mean) is 1.244, then the standard deviation (standard deviation) is 1.51636.
- The previous table shows that the Financing to Deposit Ratio (FDR) variable has a minimum value of 0.96%, then the maximum value is 338.52%, the average value (mean) is 124.8123 and the standard deviation (standard deviation) has a value of 56.77137.
- The previous table shows that if the Return On Asset (ROA) variable has a minimum value of 0.01%, then a maximum value of 6.67%, then the average value (mean) is 3.059167 and the standard deviation (standard deviation) has a value of 1.9727.

### Analysis of Panel Data Regression Estimation Model Selection

Table 3  
Chow Test Results

Effects Test	Statistic	d.f.	Prob.
Cross-section F	3.152151	(11,46)	0.0030
Cross-section Chi-square	33.706247	11	0.0004

Source: Eviews 12 Output Results, Data processed, 2023

Based on the table above, the probability value obtained from Cross-section F is 0.003 and the Prob value. The Chi-square cross-section is 0.0004, both of which are less than 0.05, so statistically  $H_0$  is rejected and  $H_1$  is accepted, therefore the panel data regression estimation model that is appropriate to use in panel data regression is the Fixed Effect Model. Based on the results of the Chow test, it shows that the panel data regression model used is the Fixed Effect Model, so it is necessary to carry out the Hausman test to determine which evaluation model is more suitable to use between Fixed Effect and random effect. Before carrying out the Hausman test, random effect regression is carried out first.

Table 4  
Housman Test Results

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	2.694034	2	0.2600

Source: Eviews 12 Output Results, Data processed, 2023

From the Hausman test results in the table above, the value of Prob. from a random cross-section of 0.26, which is more than 0.05, so that statistically  $H_0$  is accepted and  $H_1$  is rejected, therefore the appropriate estimation model to use for panel data regression is the random effect model.

### Panel Data Regression Estimation Results

Table 5  
Random Effect Model (REM) Regression Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.391848	0.457360	3.043218	0.0035
NPF	-0.640326	0.098142	-6.524462	0.0000
FDR	0.019742	0.002787	7.082486	0.0000
Effects Specification				
Cross-section random			S.D.	Rho
Idiosyncratic random			0.628735	0.3037
			0.952064	0.6963
Weighted Statistics				
R-squared	0.695308	Mean dependent var		1.715337
Adjusted R-squared	0.684617	S.D. dependent var		1.705592
S.E. of regression	0.957843	Sum squared resid		52.29539
F-statistic	65.03707	Durbin-Watson stat		1.301551
Prob(F-statistic)	0.000000			
Unweighted Statistics				
R-squared	0.676920	Mean dependent var		3.059167
Sum squared resid	74.17971	Durbin-Watson stat		0.917571

Source: Eviews 12 Output Results, Data processed, 2023

The panel data regression output results can be seen in the table presented. From the panel data regression test carried out on the variables of this research, the regression model equation was found as follows:

$$Y_{it} = a + \beta_1 x_{1it} + \beta_2 x_{2it} + e$$

$$ROA = 1.391 + (-0.64) + 0.01$$

Information:

Y = Profitability (ROA)

$\beta$  = Regression coefficient

$x_1$  = Non-performing financing (NPF)

$x_2$  = Liquidity (FDR)

$e$  = Error

### Hypothesis Testing

#### Partial Test of Problematic Financing and Liquidity

#### Problematic Financing Partial Test

Table 6  
Hypothesis Test Results

Dependent Variable: ROA  
Method: Panel EGLS (Cross-section random effects)  
Date: 07/29/23 Time: 15:29  
Sample: 2018 2022  
Periods included: 5  
Cross-sections included: 12  
Total panel (balanced) observations: 60  
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.391848	0.457360	3.043218	0.0035
NPF	-0.640326	0.098142	-6.524462	0.0000
FDR	0.019742	0.002787	7.082486	0.0000

Source: Eviews 12 Output Results, Data processed, 2023

From the attached output table, it can be concluded that:

Based on this test the variable (X1) Problematic Financing has a significance value (Sig) of 0.00. Because the value of Prob.  $0.00 < 0.05$ , then it can be concluded that  $H_1$  or the first hypothesis is accepted. This means that there is an influence of Problematic Financing (X1) on the Profitability (Y) of Sharia Business Units for the 2018-2022 Period.

Based on this test, the variable (X1) Problematic Financing has a t-statistic value of -6.524462. Based on the formula to find t table:

$$t \text{ table} = (a/2; n-k)$$

$$t \text{ table} = (0.05/2; 60-3)$$

$$t \text{ table} = (0.025; 57)$$

Then t table = number 0.025; 57. Then look at the distribution of the t value of the statistical table and find the t table value of 2.002.

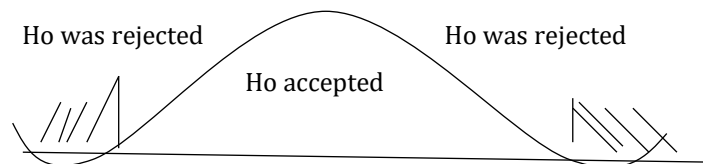


Figure 1. Test criteria

-2.002 2.002

- a. Ho is accepted if:  $-2.002 < t < 2.002$
- b. Ho is rejected if:  $t > 2.002$  or  $t < -2.002$

Based on the t test analysis, it is known that the t value is  $< -2.002$ , namely  $-6.524462 < -2.002$  with a significance level of  $0.00 < 0.05$ , so it can be concluded that  $H_0$  is rejected, meaning that the problematic financing variable has a significant effect on profitability (ROA).

### Partial T Test Of Liquidity

By using the information obtained from the output table above, we can conclude that the Liquidity variable (X2) has a value of Prob. of 0.000. Considering that the value of Prob. is less than 0.05, it can be stated that H<sub>2</sub> or the second hypothesis can be accepted. In other words, liquidity has a positive and significant effect (X2) on the profitability (Y) of Sharia Business Units (UUS) for the 2018-2022 period. Comparison of calculated t values with t table (second t test). Based on the output above, it is known that the calculated t value of the Liquidity variable is 7.082486. Because t count is 7.082486 > t table 2.002, it can be concluded that H<sub>2</sub> or the second hypothesis is accepted. This means that there is an influence of Liquidity (X2) on Profitability (Y).

### F Test (Simultaneous)

**Table 7**  
**Hypothesis Test Results**

Weighted Statistics			
R-squared	0.695308	Mean dependent var	1.715337
Adjusted R-squared	0.684617	S.D. dependent var	1.705592
S.E. of regression	0.957843	Sum squared resid	52.29539
F-statistic	65.03707	Durbin-Watson stat	1.301551
Prob(F-statistic)	0.000000		

Source: Eviews 12 Output Results, Data processed, 2023

Based on the output table above, the value of Prob is known. (F-statistic) is 0.00. Because the value of Prob.  $0.00 < 0.05$ , then according to the basis of decision making in the F test it can be concluded that the hypothesis is accepted or in other words problematic financing (X1) and liquidity (X2) simultaneously influence the profitability (Y) of the Sharia Business Unit (UUS) period 2018-2022.

Based on a comparison of the calculated F value with the F table. Based on the output table above, it is known that the F-Statistics value is 65.03707. F table at a significance of 5% or 0.05 using the formula:

$$F \text{ table} = (k; n-k-1)$$

$$F \text{ table} = (3; 60-3-1)$$

$$F \text{ table} = (3; 56)$$

Then F table = number 3; 56. Then look for the distribution of F values in the statistical table and find an F table value of 2.77. Because the calculated F value is  $65.03707 > F \text{ table } 2.77$ , then as is the basis for decision making in the F test it can be concluded that the hypothesis is accepted or in other words problematic financing (X1) and liquidity (X2) simultaneously influence profitability (Y).

### Coefficient of Determination Test

**Table 8**  
**Hypothesis Test Results**

Weighted Statistics			
R-squared	0.695308	Mean dependent var	1.715337
Adjusted R-squared	0.684617	S.D. dependent var	1.705592
S.E. of regression	0.957843	Sum squared resid	52.29539
F-statistic	65.03707	Durbin-Watson stat	1.301551
Prob(F-statistic)	0.000000		

Source: Eviews 12 Output Results, Data processed, 2023

Based on the Eviews results table above, it is known that the coefficient of determination or R-Squared value is 0.695308. The coefficient of determination (R-Squared) is 0.695308 or equal to 69.53%. This figure means that the problematic financing variable (X1) and the liquidity variable (X2) simultaneously (together) have an effect on the profitability variable (Y) which is 69.53%. Meanwhile, the remainder ( $100\% - 69.53\% = 30.47\%$ ) is influenced by other variables outside this regression equation or variables that were not studied.

## DISCUSSION

### Partial Influence of Problematic Financing on the Profitability of Sharia Business Units for the 2018-2022 Period

Based on the t test carried out, it shows that non-performing financing (NPF) has a negative effect on the profitability (ROA) of Sharia Business Units (UUS) for the period 2018 - 2022. This can be seen by looking at the results of data calculations which obtained a significant value of  $0.000 < 0.05$  and a significant value of  $0.000 < 0.05$ . t-Statistic or t count is  $-6.524462 < -2.002$ . This research shows that non-performing financing (NPF) has a negative and significant influence on profitability (ROA) because the higher the non-performing financing (NPF) will have a negative impact on the Sharia Business Unit due to the loss of generating profitability from the financing disbursed. The NPF ratio or problematic financing is an indicator that describes the amount of problematic financing in sharia business units (UUS). The impact that arises from bad credit (NPF) is loss of income from the financing that has been provided. The higher the NPF level, the lower the profitability and the Sharia Business Unit (UUS) will lose opportunities to generate profits. On the other hand, profits or profitability will increase as the NPF level decreases, the risk of problematic financing borne by the Sharia Business Unit (UUS) will be lower.

### Partial Influence of Liquidity on Profitability of Sharia Business Units for the 2018-2022 Period

Based on the t test, the actions taken show that liquidity (FDR) has a significant effect on the profitability (ROA) of Sharia Business Units for the 2018-2022 period. This can be seen by looking at the results of data calculations which obtained a significant value of  $0.000 < 0.05$  and a t-statistic value of  $7.082486 > t$  table 2.002. This research shows that if liquidity (FDR) increases, profitability (ROA) will also increase, because the funds channeled to Third Party Funds (DPK) are high so that FDR also increases. The distribution of funds for financing by sharia business units is running effectively. So that the profitability of sharia business units increases.

Financing to Deposit Ratio (FDR) is a ratio used to measure the liquidity of a sharia business unit (UUS) in repayment of previous withdrawals by depositors who rely on funds that have been provided as a source of finance, namely by dividing the amount of financing provided by the sharia business unit (UUS) towards Third Party Funds (DPK). Funds given to Third Party Funds (DPK) will be greater if the FDR is higher. The distribution of funds for financing by sharia business units is running effectively. This means that as revenue increases, so do profits. On the other hand, the lower the FDR, the lower the funds deposited, which has an impact on decreasing the income of the sharia business unit so that the profits obtained are lower.

### Simultaneous Influence of Problematic Financing and Liquidity on the Profitability of Sharia Business Units for the 2018-2022 Period

The results of the F test from this research show that the problematic financing (NPF) and liquidity (FDR) variables as a whole have a significant effect on the profitability (ROA) of Sharia Business Units (UUS) for the 2018-2022 period. This can be seen by looking at the F test results of  $0.00 < 0.05$  and the t-statistic value of  $65.03707 > F$  table 3.16, then in accordance with the basis for decision making in the F test it can be concluded that the hypothesis is accepted or in other words others, problematic financing (X1) and liquidity (X2) simultaneously influence the profitability (Y) of the Sharia Business Unit (UUS) for the 2018-2022 period. In this research, it can be said that if financing problems and liquidity experience changes, it will affect profitability. Profitability can experience changes in terms of increase or decrease

## 4. CONCLUSION

Based on the research results, the following conclusions can be drawn: Problematic financing (NPF) partially has a significant negative effect on the profitability (ROA) of Sharia Business Units (UUS) for the 2018-2022 period. Liquidity (FDR) partially has a significant effect on the profitability (ROA) of Sharia Business Units (UUS) for the 2018-2022 period. Problematic financing (NPF) and liquidity (FDR) simultaneously influence the profitability (ROA) of Sharia Business Units (UUS) for the 2018-2022 period.

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