Analysis of the Influence of Financial Technology, Internal Performance, Macroeconomic Factors on Profitability of Islamic Banks in Indonesia

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Abstract
This study aimed to analyze the profitability of Islamic Banks in Indonesia by considering internal performance factors, macroeconomic factors, and the influence of financial technology. Profitability is a crucial indicator in evaluating the financial performance of banks and maintaining their operational viability in a competitive market. This study used a quantitative approach with secondary data from the financial statements of 10 Islamic Banks in Indonesia over a certain period (10 years). Internal performance variables that are the focus of the study include traditional profitability ratios such as Return of Assets (ROA) and Return on Equity (ROE), as well as factors such as NPF (Non-Performing Financing). In addition, macroeconomic factors such as interest rates, national economic growth, and inflation, were also considered in this analysis. The results showed that partially the variables FDR (X1), INFLATION (X5), INTEREST (X6), INTEREST RATE (X7), GDP (X8), FINTECH (X9) had no effect on ROA (Y). However, the variables BOPO (X2), DPK (X3) and SIZE (X4) have an effect on ROA (Y), where the value obtained based on the probability is 0.0000 (X2), 0.0153 (X3) and 0.0548 (X4). However, when viewed simultaneously, the independent variables jointly affect the dependent variable.

Keywords : *Islamic Bank, Profitability, operating expenses to operating revenues (BOPO), Third-party funds (DPK), FINTECH*

1. INTRODUCTION

Modern Islamic banking practices have been recognized for the last 80 years with the initiation of the establishment of profit-sharing banking. The Islamic Development Bank (IDB), which was established in 1975 at a meeting of finance ministers in Jeddah, was the starting point for the idea of establishing Islamic banks in various countries (Hidayatullah, 2020). Furthermore, the existence of Islamic banks experienced rapid development in several Muslim-majority countries, such as in Egypt, Sudan, Persian Gulf countries, Pakistan, Iran, Malaysia, Bangladesh, and Turkey in the late 1970s and early 1980s (Hermawan & Herdina, 2019).

In Indonesia, banking deregulation started in 1983. At the same time, Bank Indonesia gave banks the freedom to set interest rates. The government's aim was for the de-banking policy to create more efficient

and robust banking conditions to support the economy. Furthermore, in 1983, the Indonesian government planned to introduce a "profit-sharing system" for loans, an Islamic banking concept. Then, in 1992, Islamic banking was institutionalized in Indonesia with the establishment of Bank Muamalat. According to the Financial Services Authority (OJK) report, by 2022, there would be 12 Islamic Commercial Banks (BUS), 21 Islamic Business Units (UUS), and 165 Islamic People's Financing Banks (BPRS) in Indonesia. The total assets of Islamic banks reach 703.16 trillion rupiah, with a total financing allocation of 499.34 trillion rupiah.

Return on Assets (ROA) is an important measuring tool in analyzing the level of profitability of Islamic banks. ROA measures the ability of bank management to generate profits from its total assets. ROA is calculated by dividing the bank's net profit by

its total assets. The higher the ROA value, the more efficient the bank is in generating profits from its assets. Conversely, the lower the ROA value, the lower the bank's efficiency in using funds to generate profits, or it can also indicate that the bank is experiencing losses.

Research by Istan & Fahlevi (2020) stated that Return on Assets (ROA) performance is influenced by internal performance factors from banking managerial and macroeconomic situations as external factors. Internal factors that affect company performance include size, Financing to Deposit Ratio (FDR), market share, Non Performing Financing (TPF), and Third Party Funds (DPK) (Muhammad et al., 2020). The results of research by Yasin (2014) also showed that Non Performing Financing (NPF), Capital Adequacy Ratio (CAR), Financing to Deposit Ratio (FDR), and Operating Costs to Operating Income (BOPO) have an important impact on internal performance that affects the profitability of Islamic banks.

Associated with this, Hussain et al., (2021) who examined the determinants of Islamic bank performance in Pakistan stated that company size, company profitability, company age, and organizational size are important determinants. Furthermore, based on the results of research by Sukmawati et al. (2022) explained that deposits as a financial source used to generate income have a positive effect on ROA, in contrast to the findings of Khan et al. (2017), savings had no effect on profitability. Macro factors that affected both directly and indirectly on Islamic banking profitability are interest rates, GDP, exchange rates and inflation (Hussien et al., 2019). Saputri (2021) explained that the macroeconomic sector and the BI exchange rate do not affect the profitability of Islamic banks, while the effect of exchange rate fluctuations and inflation on Islamic banking can be known quickly, and internal activities do not affect Islamic banking profits. The conditions mentioned can occur due to the unique characteristics of the Islamic banking system which applies the principle of profit sharing in financial transactions.

In addition to internal performance and macroeconomic factors, the development of fintech has become a significant driving factor in increasing the profitability of Islamic banks. Research by Ali et al. (2019) showed that fintech plays an important role in driving the growth and profitability of the Islamic banking sector. In Indonesia, where only about 36% of the population has a bank account, fintech offers promising potential financial services through non-bank systems to those who are unbanked or have difficulty obtaining banking services directly.

The development of fintech in Indonesia has shown rapid growth from 2015 to the end of 2020, there are 161 companies engaged in fintech transactions, including for the peer-to-peer lending sector (Agustina & Faizah, 2023). The role of fintech in expanding access to financial services and increasing financial inclusion for the community can make a positive contribution to the profitability of Islamic banks. In addition, the presence of fintech also spurs the banking industry to innovate and improve operational efficiency to remain competitive in an increasingly competitive and growing market.

Therefore, to fully understand the factors that affect the performance of ROA and profitability of Islamic banks, it is necessary to conduct comprehensive research and analysis and consider the relevant context, especially in the world of Islamic banking in Indonesia. For this reason, this research is formulated to answer the problems: 1) How is the influence of internal performance factors on the profitability of Islamic Banks in Indonesia?; 2) How does the influence of macroeconomic factors on the profitability of Islamic Banks in Indonesia?; 3) How does Financial Technology influence the profitability of Islamic Banks in Indonesia?.

2. RESEARCH METHOD

The population of this research was comprised of 13 Islamic commercial banks and 20 Islamic business units from banks operating in Indonesia. In this study, purposive sampling method was used with sample criteria being Islamic banks and Islamic business units in Indonesia, and made annual financial reports for a minimum period of 10 years (2013-2022) and have been published through the company's official website. This sample selection aims to ensure that the sample taken is an appropriate representation of the population to be studied, specifically Islamic banks operating in Indonesia and have presented annual financial reports during the study period. Based on these considerations, the Islamic banks used as research samples were: Bank Aceh, Bank Banten Jawa Barat Syariah (BJB Syariah), Bank Danamon Syariah, Bank Mega Syariah, Bank Muamalat Indonesia, Bank

NTB Syariah, Bank Victoria Syariah, BCA Syariah, BTPN Syariah, Bukopin Syariah.

The research used a descriptive approach and panel data regression model using primary and secondary data. Descriptive analysis was used to produce a picture or description of the variables studied, namely the economic factors of 10 Islamic Banks in Indonesia in the period 2013-2022. While the panel data regression model approach in this study was used to analyze the effect of economic factors on the profitability of Islamic Banks in Indonesia. The types of data and variables used in this study are described in table 1 below:

Table 1. Research Variables

No	Variable	Unit	Source
X1	FDR	Percent	Bank Financial Report
X2	BOPO	Percent	Bank Financial Report
X3	DPK	Percent	Bank Financial Report
X4	Size	Percent	Bank Financial Report
X5	Inflation	Percent	Bank of Indonesia
X6	Interest Rate	Percent	Bank of Indonesia
X7	Currency rates	Percent	Bank of Indonesia
X8	GDP Growth	Percent	Bank of Indonesia/Central Bureau of Statistics
X9	Fintech	Ln	Financial Services Authority (FSA)
Y	ROA	Percent	Bank Financial Report

The data processing method used panel data regression with the help of E-views 10 software and worksheets using Microsoft Excel. Statistical analysis used for significance testing consists of classical assumption tests, panel data regression, and significance assumption tests.

Classical Assumption Test

a. Normality Test

Normality test is a statistical process to test whether the data follows a normal distribution or not. The normality test carried out in this study is the Jarque-Bera test. This test tests the asymmetry and kurtosis in the data distribution. If the p value is greater than the specified significance level, then the data can be considered to follow a normal distribution.

b. Heteroscedasticity Test

The heteroscedasticity test is used to test whether the variation of the dependent variable varies across the range of values of the independent variable. In regression analysis, the main assumption that must be met is homoscedasticity, that is, the variation of the residual (error) is constant across the entire range of values of the independent variable. This study used a heteroscedasticity test correction measure using the Breusch-Pagan-Godfrey method. This method is a regression method that takes into account the presence of heteroscedasticity by giving different weights to each observation (Ariefianto, 2012).

c. Multicollinearity Test

The multicollinearity test used in the study is the Variance Inflating Factor (VIF) test. VIF measures how strong the correlation is between the independent variables in the regression model. A high VIF value (usually above 10) indicates multicollinearity.

d. Autocorrelation Test

The autocorrelation test in this study used the Breusch-Godfrey Serial Correlation LM test.

Panel Data Regression

There are three tests that must be performed to select the estimation technique of panel data. First, the Chow test was performed to choose between the common effect model or the fixed effect model. Second, the Hausman test was used to choose between the fixed effect model or the random effect model. Third, the Lagrange Multiplier (LM) test was carried out to choose between the common effect model or the random effect model.

Based on the results of the best model selection test, the model selected for the final results in this study was the Random Effect Model (REM). To determine the effect of the Inflation (X1) and Exchange Rate (X2) variables on ROA Growth (Y), it can be seen in the following Random Effect Model (REM) Regression:

$$ROA = \alpha + \beta_1 FDR_{it} + \beta_2 BOPO_{it} + \beta_3 DPK_{it} + \beta_4 Aset_{it} + \beta_5 INF_{it} + \beta_6 it\ KURS + \beta_7 GDP_{it} + \beta_8 BIrate_{it} + \beta_9 Fintech_{it} + \varepsilon_{it}$$

Where:

ROA = Return on Asset

FDR = Finance to Deposit Ratio

BOPO = Operating Expenses to Operating Income

DPK = Deposit pe assets

Size = Ln Asset

Inf = Inflation

Exchange Rate = Foreign Exchange Rate

GDP = Gross Domestic Product

BI rate = Bank Indonesia Interest Rate

Fintech = Total Accumulated Loan Transactions

αt = Constant

β = Regression Coefficient

eit = Error Term

i = Indicates Research Cross Section Data

t = Indicates Research Time Series Data

Significance Assumption Test

a. F test

The F test was performed to determine whether the independent variables have a joint (simultaneous) effect on the dependent variable. The degree of confidence used for the F test in this study is 0.05 (α = 5%). If the sig. value obtained <0.05 then the independent variables together (simultaneously) affect the dependent variable.

b. T-test

If the T-test is used to test the regression coefficient together, the t-test is used to test the regression coefficient individually (Iqbal, 2015). Testing the t test in this study can be seen in the mathematical sign on the probability or t-statistic.
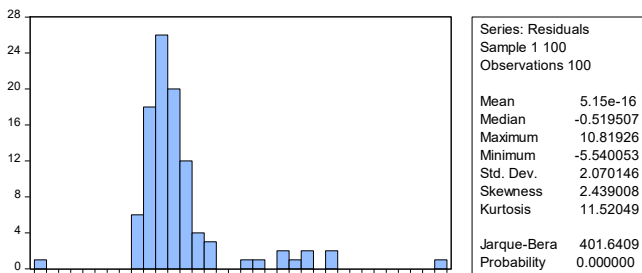
3. RESULTS AND DISCUSSION

3.1. Research Result

3.1.1. Classical Assumption Test

Normality Test

The normality test was carried out using the Shapiro Jarque Bera test. Normality of the data can be seen from the Jarque Bera value or its Probability. The result showed a Probability value of 0.00000 or the value is smaller than the alpha set at 5%, so the decision taken is to reject H0 or the data did not distribute normally. However, the central limit theory says that the greater the amount of data, the more normal the distribution formed whatever the initial distribution, so because the data used is large enough, the data formed can be said to be normal.

Series: Residuals	
Sample 1 100	
Observations 100	
Mean	5.15e-16
Median	-0.519507
Maximum	10.81926
Minimum	-5.540053
Std. Dev.	2.070146
Skewness	2.439008
Kurtosis	11.52049
Jarque-Bera	401.6409
Probability	0.000000

Multicollinearity Test

Based on Table 2, it can be seen that all variables in this study were free from multicollinearity. This can be seen from the Centered VIF (Variance Inflating Factor) value obtained which is smaller than the value of 10.

Table 2. Multicollinearity Test

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	1898.640	40276.13	NA
X1	0.000138	25.17242	1.284639
X2	0.000181	31.94992	1.147705
X3	0.193818	691.4429	1.305891
X4	3.75E-06	1.108941	1.071857
X5	0.032718	16.10746	3.718237
X6	0.044965	33.00306	2.553922
X7	110.9775	40088.82	4.653931
X8	0.016093	7.915406	1.620655
X9	0.220035	894.1316	1.328008

Heteroskedacticity Test

Based on Table 3, it can be seen that all variables in this study were free from heteroscedasticity test. This can be seen from the Obs*R-Squared and Scaled explained SS value.

Table 3. Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	0.481783	Prob. F (9,90)	0.8834
Obs*R-squared	4.596387	Prob. Chi-Square (9)	0.8680
Scaled explained SS	19.58428	Prob. Chi-Square (9)	0.0207

The results obtained for the heteroscedasticity test were the Obs * R-squared value at the p value shown in the Prob value. Chi-Square (2) > 0.05, namely (0.8680) this indicated that the selected regression model is homoscedasticity/no heteroscedasticity occurs.

Autocorrelation Test

Table 4. Autocorrelation Test

F-statistic	33.17866	Prob. F(2,88)	0.0000
Obs*R-squared	42.98942	Prob. Chi-Square(2)	0.0000

Based on Table 4, it was explained that the results of the Autocorrelation Test use the Breusch-Godfrey Serial Correlation LM test, and the results are 0.0000 which is <0.05 so that Ho is rejected.

3.1.2. Panel Data Regression Model

There were three tests that must be performed to select the estimation technique of panel data. First, the Chow test is used to choose between the common effect model or the fixed effect model. Second, the Hausman test is used to choose between the fixed effect model or the random effect model. Third, the Lagrange Multiplier (LM) test is used to choose between the common effect model or the random effect model.

Chow Test

The chow test is a test conducted to determine which model is better in panel data testing. This test is used to determine whether the fixed effect panel data regression technique is better than the common effect model. The results obtained for the Chow test in this study can be seen in Table 5 as follows:

Table 5. Chow Test

Effects Test	Statistic	d.f.	Prob.
Cross-section F	21.475130	(9,81)	0.0000
Cross-section Chi-square	121.968636	9	0.0000

Based on table 5 above, the obtained results showed that the fixed effect model is the best model to choose. This can be seen from the Cross-section F value obtained, which is 0.0000. If this value is <0.05, then the selected model is fixed effect.

Hausman Test

Tabel 6. Uji Hausman

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	0.000000	9	1.0000

Based on table 6 above, the results indicated that the fixed effect model was the most suitable model to choose. This can be seen from the cross-section random value obtained which is 1.000. If the value is > 0.05, then the selected model is random effect.

Lagrange Multiplier Test

Table 7. Lagrange Multiplier Test

Null (no rand. effect) Alternative	Cross-section One-sided	Period One-sided	Both
Breusch-Pagan	94.65317	4.117814	98.77098
	(0.0000)	(0.0424)	(0.0000)
Honda	9.728986	-2.029240	5.444543
	(0.0000)	(0.9788)	(0.0000)
King-Wu	9.728986	-2.029240	5.444543
	(0.0000)	(0.9788)	(0.0000)
GHM	--	--	94.65317
	--	--	(0.0000)

Based on table 7, the obtained results showed that the random effect model is the best model to choose. This can be seen from the Breusch-Pagan value obtained which is 0.0000. If this value is <0.05, then the selected model is random effect.

3.1.3. Random Effect Model Regression Estimation Results

Based on the results of the best model selection test, the model selected for the final results in this study was the Random Effect Model (REM). To determine the effect of the Inflation (X1) and Exchange Rate (X2) variables on Economic Growth (Y), it can be seen in the following Random Effect Model (REM) Regression:

Table 8. Regression Random Effect Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	9.635167	25.08681	0.384073	0.7018
X1	0.002228	0.007512	0.296588	0.7675
X2	-0.125155	0.009134	-13.70253	0.0000
X3	-0.081505	0.369825	-0.220388	0.8261
X4	0.000195	0.001146	0.170300	0.8652
X5	-0.113032	0.104103	-1.085775	0.2805
X6	0.027903	0.122178	0.228377	0.8199
X7	1.100522	6.057929	0.181666	0.8563
X8	0.057648	0.072964	0.790082	0.4316
X9	-0.023223	0.269643	-0.086126	0.9316

From the results of the E-views output above, the equation form obtained using the regression model above is as follows:

$$Y = 0.7018 + 0.7675\ X1 + 0.0000\ X2 + 0.8261\ X3 + 0.8652\ X4 + 0.2805\ X5 + 0.8199\ X6 + 0.8563\ X7 + 0.4316\ X8 + 0.9316\ X9$$

From the above equation it can be explained / interpreted that the constant value obtained is 0.7018, then for the variables FDR (X1), BOPO (X2), DPK (X3), SIZE (X4), INFLATION (X5), INTEREST (X6), LESS (X7), GDP (X8), FINTEK (X9), had a positive influence on ROA (Y). Thus, for each independent variable is considered constant, where every increase in the value of the independent variable by 1 per cent alone can increase ROA (Y).

3.1.4. Individual Parameter Significance Test (t Statistical Test)

Partially, the t-test is an analysis used for hypothesis making. The t-test basically explains how far the influence of the independent variables individually on the dependent variable. The results obtained for the t-test in this study are displayed in Table 9 as follows:

Table 9. t-test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-14.79851	25.44115	-0.581676	0.5624
X1	0.001873	0.008359	0.224136	0.8232
X2	-0.091270	0.010836	-8.422702	0.0000
X3	2.988954	0.726937	4.111711	0.0001
X4	-0.002302	0.001181	-1.948851	0.0548
X5	-0.051238	0.104697	-0.489395	0.6259
X6	0.164739	0.124742	1.320638	0.1903
X7	-2.971709	6.159860	-0.482431	0.6308
X8	-0.007309	0.073609	-0.099295	0.9211
X9	-0.185901	0.270992	-0.686001	0.4947

Based on Table 9, the results obtained for the t test can be explained as follows:

X1. FDR

The partial calculation results of the FDR variable (X1) on the ROA (Y) variable were obtained:

a. t-count (0.224136) < t-table (1.65909) then Ha1 is rejected while H0 is accepted which indicated no influence on Y variable.
b. The significance probability value is 0.8232 > 0.05 (α: 5%) then Ha1 is rejected while H0 is accepted, indicating that it was not statistically significant.
c. Thus, the FDR variable (X1) had no influence and was not significant to the ROA variable (Y).

X2. BOPO

The results of the partial calculation of the BOPO (X2) variable on the ROA (Y) variable were obtained:

a. t-count (-8.422702) < t-table (1.65909) then Ha1 is rejected while H0 is accepted, hence no influence on Y variable.
b. The significance probability value of 0.0000 <0.05 (α: 5%) then Ha1 is accepted while H0 is rejected, indicated statistically significant result.
c. Thus, the BOPO variable (X2) had no influence and was significant on the ROA variable (Y).

X3. DPK

The results of the partial calculation of the DPK (X2) variable on the ROA (Y) variable were obtained:

a. t-count (4.111711) > t-table (1.65909) then Ha1 is accepted while H0 is rejected which means there is an influence on Y variable
b. The significance probability value of 0.0001 <0.05 (α: 5%) then Ha1 is accepted while H0 is rejected, indicated statistilly significant result.
c. Thus, it can be concluded that the DPK variable (X3) had an influence and was significant on the ROA (Y) variable.

X4. SIZE

The results of the partial calculation of the SIZE (X4) variable on the ROA (Y) variable were obtained:

a. t-count (-1.948851) < t-table (1.65909) then Ha1 is rejected while H0 is accepted, hence no influence on Y variable.
b. The significance probability value of 0.0548731 <0.05 (α: 5%) then Ha1 is accepted while H0 is rejected, indicating significant result.
c. Hence the Size (X4) variable had an influence and was significant on the ROA (Y) variable.

X5. INFLATION

The results of the partial calculation of the INFLATION variable (X5) on the ROA variable (Y) were obtained:

a. t-count (-0.489395) < t-table (1.65909) then Ha1 is rejected while H0 is accepted, hence no influence on Y variable
b. The significance probability value is 0.6259 > 0.05 (α: 5%) then Ha1 is rejected while H0 is accepted, indicating it was not significant.
c. Thus, it can be concluded that the Inflation variable (X5) had no influence and was not significant to the ROA variable (Y).

X6. INTEREST RATE

The results of the partial calculation of the Interest Rate variable (X6) on the ROA variable (Y) were obtained:

a. t-count (1.320638) < t-table (1.65909) then Ha1 is rejected while H0 is accepted which indicated no influence on Y variable.
b. The significance probability value of 0.1903 > 0.05 (α: 5%) then Ha1 is rejected while H0 is accepted, meaning it was not significant.
c. Accordingly, it can be concluded that the Interest Rate variable (X6) had no influence and was not significant to the ROA variable (Y).

X7. EXCHANGE RATE

The results of the partial calculation of the Exchange Rate variable (X7) on the ROA variable (Y) were obtained:

a. t-count (-0.482431) < t-table (1.65909) then Ha1 is rejected while H0 is accepted which indicated no influence on Y variable
b. The significance probability value of 0.6308 > 0.05 (α: 5%) then Ha1 is rejected while H0 is accepted, indicating it was not statistically significant.

c. So, it can be concluded that the Exchange Rate variable (X7) had no effect and was not significant to the ROA variable (Y).

X8. GDP

The results of the partial calculation of the GDP variable (X8) on the ROA variable (Y) were obtained:

a. t-count (-0.099295) < t-table (1.65909) then Ha1 is rejected while H0 is accepted which meant no influence on Y variable.

b. The significance probability value is 0.9211> 0.05 (α: 5%) then Ha1 is rejected while H0 is accepted, indicating it was not statistically significant.

c. So it can be concluded that the GDP variable (X8) has no effect and is not significant on the ROA variable (Y).

X9. FINTECH

The results of the partial calculation of the Fintech variable (X9) on the ROA variable (Y) were obtained:

a. t-count (-0.686001) < t-table (1.65909) then Ha1 is rejected while H0 is accepted which indicated no influence on Y variable.

b. The significance probability value of 0.4947 > 0.05 (α: 5%) then Ha1 is rejected while H0 is accepted, meaning it was not statistically significant.

c. Thus, it can be concluded that the Fintech variable (X8) had no influence and was not significant to the ROA variable (Y).

3.1.5. Simultaneous Test (F Statistical Test)

The F test is used to determine whether the independent variables have a joint (simultaneous) effect on the dependent variable. The degree of confidence used for the F test in this study was 0.05 (α = 5%). If the sig. value obtained <0.05 then the independent variables together (simultaneously) affect the dependent variable. The results of the F test in this study can be seen in Table 10 as follows:

Table 10. F-test

F-statistic	32.03134
Prob (F-statistic)	**0.000000**

Based on table 10 above, the result obtained is the F-statistic value of 0.000, this showd that the value is <0.05, thus simultaneously the variables FDR (X1), BOPO (X2), DPK (X3), SIZE (X4), INFLATION (X5), INTEREST (X6), LESS (X7), GDP (X8), and FINTEK (X9) jointly affected the variable ROA (Y).

3.2. Discussion
3.2.1. Effect of FDR on Profitability (ROA)

The independent variable FDR produced a t statistic value of 0.224136 and a probability value of 0.8232. This shows that ROA is not influenced by FDR. The results of this test are not in accordance with the initial hypothesis where FDR was proposed to have a positive effect on ROA. Research Fitriana & Musdholifah (2017) which concluded that FDR has no significant effect on ROA in Islamic Banks, shows that with the high number of financing disbursements, banks do not automatically increase bank income, among others, due to non-current financing or commonly called non-performing loans (NPF) so that operating costs increase for problem financing reserves, so that an increase in FDR had no impact on increasing ROA.

3.2.2. The Effect of BOPO on Profitability (ROA)

The independent variable BOPO of Islamic Banks produced a t-statistic value of -8.422702 and a probability value of 0.000. This shows that every 1 per cent increase in BOPO will reduce ROA by 0.091270. This result is in line with the initial hypothesis where BOPO negatively affected ROA. The high value of the BOPO ratio indicates that the bank has not been able to manage its resources to run its business efficiently. In accordance with Bank Indonesia regulations, the ideal BOPO ratio value is between 50% - 75%. In the period of this study, it can be seen that the average value of the BOPO ratio is 89.63%, which means that the current condition of islamic banking is still healthy. The high value of BOPO is also caused by the high cost of funds raised and the low interest income from investing funds (Agam & Pranjoto, 2021).

3.2.3. Effect of third party fund on profitability (ROA)

The independent variable Deposit to asset of Islamic Commercial Bank yielded a t statistic value of 4.111711 and a probability value of 0.0001. This shows that ROA is influenced by Deposit to Asset, which indicates that every 1 per cent increase in Deposit to asset will increase ROA by 2.988954. According to Risma Mellaty & Kartawan (2021), Third Party Funds, which are the largest composition of funds in Islamic banks, have a very important function for national Islamic banking institutions. Because DPK is the main cog of Islamic banking in carrying out its function as an intermediary institution. Based on the research results, the DPK variable had a

positive and significant effect on the ROA variable, which means that any increase in DPK reflects a large ROA value. In addition, the higher the growth of DPK obtained by the bank shows the higher the level of public trust in the bank. This increase in DPK can affect the level of profitability of Islamic banks if the bank can carry out its operational activities properly. This is in line with the results of research Wulandari & Shofawati (2017) that stated DPK growth partially has a significant effect on ROA on BPRS in Indonesia in 2011-2015.

3.2.4. The effect of Size growth on ROA

The independent variable Size growth of Islamic Banks produced a t statistic value of -1.948851 and a significance probability of 0.0548731 <0.05 (α: 5%). Consequently, Ha1 is accepted while H0 is rejected, indicating significant result. This shows that ROA is influenced by Size growth. The results of this test are in accordance with the initial hypothesis where Size had a positive effect on the company's ROA. The results of research Setiawati & Veronica (2020) which stated that companies with large assets are able to generate greater profits if followed by the results of their operational activities, so it can be concluded that large company size can increase bank ROA, so size has a positive relationship with ROA. However, this efficiency is highly dependent on its operational activities. In this study, the level of bank efficiency was not analyzed, but based on the results of research Khalimah & Gunanto (2022) the results of efficiency calculations using the DEA method, that Islamic Commercial Banks in 2016 had perfect / full efficiency levels, but in 2017-2020 there were 4 Islamic Commercial Banks that experienced inefficiency.

3.2.5. The effect of exchange rate growth on profitability (ROA)

The test results showed that the independent variable exchange rate growth of Islamic Banks produced a t statistic value of 1.320638 and a probability value of 0.1903. This shows that ROA is not influenced by exchange rate growth. The results of this study are reinforced by Hastasari (2019) that foreign exchange transactions in Islamic Banks are not as large as conventional banks, so that the increase in exchange rate changes has no effect on the ROA of Islamic Banks.

3.2.6. Effect of Inflation on Profitability (ROA)

The independent variable Inflation produced a t statistic value of -0.489395 and a probability value of 0.6259. This result indicates that the ROA of Islamic banks is not influenced by inflation. The results of this test are in accordance with the results of research Nasikin et al. (2021), that Inflation has a negative and insignificant effect on Return On Asset (ROA). This is because Islamic banks do not use an interest system but use a profit-sharing system thus the money managed by Islamic banks is not too influential if there is an increase in inflation.

3.2.7. Effect of GDP growth on Profitability (ROA)

The independent variable GDP growth produced a t statistic value of -0.099295 and a probability value of 0.9211. This shows that the probability value is greater than alpha of 5 per cent, which indicates that the proposed hypothesis that stated GDP has a positive effect on ROA of Islamic Banks is not proven. Several studies that reported similar findings to this study suggest that GDP has no effect on the profitability of Islamic banks (Sangjaya et al., 2022; Saputri, 2021; Arpinto Ady, 2020). This shows that positive GDP growth in accordance with macroeconomic theory will have an impact on increasing people's income, which is followed by an increase in savings. From this result it was concluded that people do not automatically increase their funds in Islamic Banks.

3.2.8. The effect of interest rates on profitability (ROA)

The independent variable BI rate produced a t statistic value of 1.320638 and a probability value of 0.1903. This shows that the probability value is greater than alpha of 5 per cent, which further indicates that the interest rate variable has no significant effect on the ROA variable of Islamic banks in Indonesia. Islamic banking does not refer to interest rates but profit-sharing. However, in practice, the determination of the profit-sharing ratio will be adjusted to the prevailing interest rate. The increase in interest rates will usually directly affect the level of profit sharing of deposits, while the adjustment of the new financing profit sharing will be done afterwards, so that in a certain period the difference between the profit sharing of financing and deposits becomes less. The results of this study are in line with the findings Fadillah & Paramita (2021) that stated interest rates (BI rate) have no significant effect on Islamic bank ROA in 2014-2018.

3.2.9. Effect of Fintech on Profitability (ROA)

The independent variable Ln Fintech produced a t statistic value of -0.686001 and a probability value of 0.4947. This shows that the ROA of Islamic banks is not influenced by Ln Fintech growth. Based on consumer theory, this shows that Fintech can serve new channels because these companies reach new target markets, the existence of Fintech in the current financial era acts as a complement for Islamic banks.

The presence of Fintech as a complementary that can be balanced by Islamic Banks. The growth of Fintech companies that experienced high growth was able to reduce the dominance of banks so as to encourage Islamic banks to carry out their operational activities efficiently by utilizing information technology. On the other hand, Islamic banks have taken action to respond to these challenges, one of which is by collaborating with peer to peer lending Fintech companies.

Cooperation between banks and Fintech can provide benefits, among others for banks, partnerships can generate profits through expansion by developing new customer segments, products, and services through new technologies that create new revenue opportunities by using new technologies that are able to increase efficiency. This is important as banks are often associated with a lack of innovation either due to their stable market position or because they are subject to complex and onerous government regulations (Anagnostopoulos, 2018). Fintech can mainly benefit from the reputation of banks but also from new sources of finance and infrastructure (Drasch et al., 2018). Digital innovation can drive financial inclusion for the banking sector to improve its relationship with customers and improve performance, for this reason digitalization can provide opportunities for Islamic Banks to improve interactions with customers and potential customers.

4. CONCLUSION

Based on the results of data analysis and discussion of all previous research variables, the results of this study when viewed partially the FDR variable (X1), INFLATION (X5), FUNDS (X6), LESS (X7), GDP (X8), FINTEK (X9) had no effect on ROA (Y). However, the variables BOPO (X2), DPK (X3) and SIZE (X4) had an effect on ROA (Y), where the value obtained based on the probability is 0.0000 (X2), 0.0153 (X3) and 0.0548 (X4). However, when viewed simultaneously, the independent variables jointly affected the dependent variable.

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