

## PROFITABILITY OF ISLAMIC COMMERCIAL BANKS IN INDONESIA: DETERMINANTS AND IMPLICATIONS

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### ABSTRACT

The performance of Islamic Commercial Banks (*BUS*) in Indonesia is faced with significant challenges related to global economic fluctuations, the COVID-19 pandemic, and the industrial transformation of the merger of Bank Syariah Indonesia (*BSI*). This observation aims to guess the profitability factor (*ROA*) of *BUS* focusing on macroeconomic variables (*Inflation*, *GDP*, *BI7DRR*) and internal bank variables (*CAR*, *BOPO*, *NPF*, and *FDR*) within 2019-2023. Quantitative methods are suitable to be applied using multiple linear regression analysis with secondary panel data from 11 *BUS* samples, annual financial data of *BSI* before and after merging, resulting in 55 sample results then processed with IBM SPSS 29 tools. It was found that *GDP* and *CAR* have a significant positive effect on *ROA*. *BOPO* and *NPF* have a significant negative effect on *ROA*. *Inflation*, *BI7DRR*, and *FDR* have no significant Impact on *ROA*. The resulting presentation of 87.3% of the above variables affects profitability, while the rest is generated from variables outside the study. These findings reinforce the importance of controlling asset quality, capital strengthening, and operational efficiency in increasing *BUS* profitability in Indonesia. The government also needs to make strong regulations for the sustainability of Islamic financial institutions, especially Islamic banking. This research practically provides recommendations to policymakers to strengthen regulations related to asset quality, and operational efficiency. The inclusion of *BSI* analysis before and after the merger, can provide broad, unique, and impactful insights into restructuring in the context of Islamic banking in Indonesia.

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## 1 Introduction

Islamic Commercial Banks are a choice for Muslim and non-Muslim customers to carry out transactions so they are experiencing very rapid development in Indonesia 10.9% by 2023, along with an increase in the development of the Islamic economy which can certainly increase the contribution of Islamic banking to the national economy, but in reality this development is still inferior to Malaysia 36.6% which is not included in the 10 countries with the majority of the world's Muslim population, This advantage can be influenced by several factors, such as government support, clear regulations, and the development of supporting infrastructure (Hidayat & Kassim 2023).

As an integral part of the national financial system, Islamic banks performed well during the 1998 monetary crisis, the fact that Islamic banking is more stable than conventional banking shows that sharia principles can support economic stability. But of course, Islamic banks have faced significant challenges in recent years in the macroeconomic and internal bank sectors. The COVID-19 pandemic and rising inflationary pressures have underscored the importance of the sector's resilience (R. Hidayat et al., 2021). The pandemic has not only had an economic impact but also tested the ability of Islamic banks to be competitive and stable. In addition, global inflationary pressures stemming from the presence of geopolitical dynamics further complicate the situation. Indeed, these challenges emphasize the need for a thorough evaluation of the macroeconomic and internal bank factors that affect the profitability of Islamic banks in Indonesia during the 2019-2023 period:

**Table 1. Development of Macroeconomic Variables in Indonesia**

Year	Inflation %	GDP %	BI7DRR %
2019	2.72	4.97	5.51
2020	1.68	2.19	3.88
2021	1.87	5.03	3.52
2022	5.51	5.01	3.70
2023	2.61	5.02	6.00

Source: bi.go.id, BPS

Not only that, changes in Islamic banking regulations, such as spin-off policies that require Sharia Business Units (*UUS*) from conventional banks to become independent entities, also affect *BUS* financial performance in the operational strategy and financial management of Islamic banks, this policy not only creates opportunities for strengthening institutional autonomy, but can also pose challenges to ensuring sustainable profitability (Panca & Sudrajad, 2023). In addition, the *BSI* merger initiative is an important milestone in industry restructuring, but it also raises an assessment of the sustainability of profitability and operational efficiency of Islamic banks in Indonesia. Internal conditions of *BUS* in Indonesia experienced fluctuating conditions in 2019-2023.

**Table 2. 2019-2023 *BUS* Internal Development**

Year	ROA %	CAR %	BOPO %	NPF %	FDR %
2019	1,73	20,59	84,45	3,23	77,91
2020	1,4	21,64	85,55	3,13	76,36
2021	1,55	25,71	84,33	2,59	70,12

2022	2	26,28	77,28	2,35	75,19
2023	1,88	25,41	78,31	2,1	79,06

Source: SPS OJK, 2023

Based on Law No. 21 of 2008 concerning Islamic banking, truth, justice, transparency, and accountability must always be emphasized in Islamic economics as a reference for achieving the welfare of mankind (Nungcahyani & Wahyudi, 2024). The main ratio used to measure this is the profitability ratio measured using Return on Assets (ROA) which measures the level of efficiency of the company, the increasing ROA value reflects the better the level of performance of a company, while decreasing ROA will reduce the level of performance of a company (Mursyid dan Hadri Kusuma, 2021). This study aims to fill the gap by investigating the determinants and implications of BUS profitability in Indonesia.

Previous research related to the determinants of BUS profitability certainly produced a lot of conflicting gaps. Like Inflation, according to signal theory, external information such as inflation can provide important signals about a company's financial performance. (Toto Sugihyanto, 2021) found a positive relationship between inflation and ROA of Islamic banks, while (Maulidah et al., 2024; Haddad et al., 2022) reported a positive signal between inflation and ROA of Islamic banks. Similarly, GDP is an assessor of national economic growth, according to signal theory if the level of GDP rises it will bring a good level of profitability for a company. (O. Saputri & Hannase, 2021; Gunanto, 2023) stated that there is a positive relationship between GDP and ROA of Islamic banks, while (Sangjaya et al., 2022; Mashamba & Chikutuma, 2023) stated that there is a negative relationship between GDP and ROA.

BI7DRR is a reference interest rate issued by Bank Indonesia which is often debated in Islamic bank performance indicators because it is not by Islamic sharia principles. in signal theory interest rates are also important information for a company. According to signal theory, the increasing BI7DRR will make a negative signal for the company. (Dewi & Sudarsono 2021) mentioned the results in his research that BI7DRR has a positive effect on ROA of Islamic banks, while (Prastiwi 2022; Maulidah, et.al 2024) stated that BI7DRR has a negative effect on Islamic bank ROA.

Internal bank indicators are also an important aspect in measuring the profitability of Islamic banks at present, such as CAR is a capital adequacy ratio, in signal theory the increasing value of the CAR ratio will have a positive impact on the company, (Gazi et al., 2021; Maulidah et al., 2024) stated that CAR shows a positive relationship to ROA, while (Yuniar & Yuningsih, 2023) shows a negative relationship between CAR and ROA of Islamic banks. *BOPO* is a measure of a company's efficiency where according to signal theory the smaller the *BOPO* value, the more efficient the company will be in running its business model. (Haddad et al., 2022; Yuniar & Yuningsih, 2023) in his research stated that *BOPO* positively affects the ROA of Islamic banks, while (Basri et al., 2024; Maulidah et al., 2024) stated that *BOPO* affects ROA negatively.

The NPF ratio is the value of the ratio of non-performing financing, where according to the signal theory the lower the NPF value, the better the performance of the company. (Gunanto, 2023; Maulidah et al., 2024) stated the result that NPF has a positive effect on ROA of Islamic banks, while temporary (Yuniar & Yuningsih, 2023; Dwinanda

& Tohirin, 2021) stated that NPF has a negative effect on Islamic bank ROA. FDR is one of the important indicators in assessing the profitability of Islamic banks, which aims to measure the amount of financing provided by banks with the amount of deposits received, in signal theory the increasing value of FDR will bring a positive signal for Islamic banks. (Muhammad Yusuf & Rahmadani Hidayat, 2022; Gazi et al., 2024) stated that FDR has a positive effect on ROA of Islamic banks, while (Dwinanda & Tohirin, 2021; Yuniar & Yuningsih, 2023) stated that FDR has a positive effect on ROA of Islamic banks. The existence of evidence of this inconsistency emphasizes the need for further analysis, especially within the scope of Islamic Commercial Banks with the latest research period data, namely 2019-2023.

Research related to ROA needs to be explored further, such as financial health, compliance with sharia principles, and the role in community economic development due to changes in regulations from policymakers from year to year. This study also includes the pre-merger and post-merger annual financial statements of Bank Syariah Indonesia (BSI) as a research sample as a novelty, this is because *BSI* is one of the largest contributors to *BUS* assets in Indonesia. Financial data from 3 separate entities are calculated and combined using the pro forma method which is then analyzed together with post-merger data, of course the main contribution of this research is still rarely explored, making it relevant for academics in understanding the dynamics of Islamic bank performance. For policymakers this research provides valuable insights for the evaluation of the effectiveness of the *BSI* merger as a model in encouraging the advancement of Islamic Banks in Indonesia.

## 2 Literature Review

Signal Theory exists in Research related to work marketing signals created by Spence (1973). Investors can use signal theory to obtain information related to a company's financial management (Bafera & Kleinert 2023). External parties will use management data to make decisions about how to divide their income. In its application, signal theory strongly emphasizes transparency and effective communication from banks such as disclosure of financial performance and sharia compliance to build customer and investor trust to increase profitability (Meldona et al., 2020). In the Indonesian context, the use of signaling theory in research related to *BUS* profitability has increasingly highlighted the sharia compliance aspects of Islamic banking consolidation regulations, fiscal intensiveness, and demographic changes. However, in Indonesia the level of iteration, sharia inclusion is still very low, and competition with conventional banks and product diversification is still very lacking. Key factors such as macroeconomic stability, operational efficiency. Regulatory compliance, technology, and management quality greatly affect the financial performance of *BUS* with strategic implications for strengthening the competitiveness of the global Islamic banking industry using maqashid sharia sustainability values.

The Study conducted by (Asep Kholidul Mufid, 2023) Measuring the determinants of profitability with panel data regression of Islamic banks in *OKI* countries shows the results that internal and macroeconomic variables have a simultaneous effect during the observation period in *OKI* countries. It is mentioned that this observation is still limited to the evaluation of the plus value of Islamic banking in the context of the country because it only focuses on the consolidation of banks in a country, Islamic banks perform well in the

global crisis because the operations of Islamic banks tend to be stable, and there are other business opportunities such as Sukuk, and investment. The Study conducted (Senan et al., 2021) From 2005-2016 in Yemen Islamic Bank stated that CSR, inflation, asset size, and bank age affect profitability.

Using LLC and IPS panel unit root tests, the study examined the internal and macroeconomic factors that can affect the profitability of Bahrain Islamic banks (Abou Elseoud et al., 2020). The results showed that bank size and inflation directly affect ROA, GDP has a negative effect, and CAR has a positive effect. The sample consisted of six Islamic banks, or 35% of Bahrain Islamic banks, over the seven years 2013–2019. (Gazi et al., 2024) chose the years 2010–2022 to investigate the profitability metrics of Islamic banks in Bangladesh using panel data from 8 Islamic banks using the linear regression approach (OLS) and GMM. It was discovered that while bank internal factors have a positive and negative impact on profitability, GDP does not affect on the profitability of Bangladeshi Islamic banks, while inflation and interest rates have a favorable impact. Throughout the year, Bangladeshi Islamic banks faced accusations of fraud in their branches, a decline in their financial performance, and changes to their board of directors.

Signal theory states that Return on Assets (ROA) is a measure of the bank's efficiency in managing its assets, increasing the value of ROA, increasing the bank's performance. (Mursyid & Hadri Kusuma, 2021):

$$ROA = \frac{Net\ Income}{Total\ Assts} \times 100\%$$

### **Inflation**

Inflation is defined as a continual increase in the prices of products and services over a specific period, leading to a decrease in the purchasing power of money, which subsequently impacts the nation's economy (Astiyah & Suseno, 2010) In signal theory, the higher the inflation, the negative impact on ROA:

$$Inflation = \frac{CPI\ Current - CPI\ Previous}{CPI\ Previous} \times 100\%$$

Some of the results of previous research, researched by (Ningsih et al., 2022; Maulidah, et.al 2024; Haddad et al. 2022) obtained the result that the inflation variable negatively affects the profitability of Islamic banking, but research researched by (Sugihyanto, Toto 2021) obtained the result that the Inflation variable affects the profitability of Islamic banking positively.

**H1: Inflation negatively affects *BUS* Profitability**

### **Gross Domestic Product (GDP)**

The total value of production of goods and services in a country within a certain period, which also serves to assess the economic growth of a country (Gunanto, 2023), is the definition of GDP. Signaling theory states that the higher the GDP, the more positive the impact on ROA:

$$GDP = C + I + G (X - M)$$

According to research (O. Saputri 2021; Nadzifah & Sriyana 2020; Gunanto 2023), it explains that the GDP variable affects Islamic banking profitability positively, while research research by (Mashamba & Chikutuma 2023; Sangjaya, et.al 2022) found that the GDP variable does not affect Islamic banking profitability.

**H2: GDP positively affects *BUS* profitability**

### **BI 7 Days Repo Rate (BI7DRR)**

BI7DRR is the benchmark interest rate set by Bank Indonesia to control monetary policy, later changes in BI7DRR will affect bank interest rates, Inflation, and GDP. In signal theory, the more BI7DRR increases, the more negative impact it will have on ROA. Research researched (Irfan 2020; Prastiwi 2022; Maulidah, et.al 2024) states that the interest rate variable affects Islamic banking profitability negatively and significantly, while research researched (Dewi & Sudarsono 2021) states that the BI7DRR variable affects Islamic banking profitability positively and significantly.

**H3: BI7DRR negatively affects *BUS* Profitability**

### **Capital Adequacy Ratio (CAR)**

In short, CAR is the ratio of bank capital adequacy that serves to absorb risks and losses, CAR increases the bank's ability to manage risk. Based on signal theory if CAR increases, the bank's ability to manage risk also increases:

$$CAR = \frac{\text{Capital}}{\text{Risk-Weighted Assets}} \times 100\%$$

Research conducted by (Dwinanda & Tohirin 2021; Jadah et al. 2020; Gazi et al. 2021) state that the CAR variable affects Islamic banking profitability positively and significantly. Meanwhile, research (Yuniar & Yuningsih 2023) states that the CAR variable affects Islamic banking profitability negatively and significantly.

**H4: CAR positively affects the *BUS* Profitability**

### **Operating Expenses Operating Income (BOPO)**

The efficiency ratio which in signal theory is explained if the lower the BOPO, the more efficient the bank will be in managing risk:

$$BOPO = \frac{\text{Total Operating Expenses}}{\text{Total Operating Income}} \times 100\%$$

Research conducted by (Yuniar & Yuningsih 2023; Muhammad Yusuf & Rahmadani Hidayat 2022; Haddad et al. 2022) state that the BOPO variable affects Islamic banking profitability positively and significantly, while research researched (Maulidah, et.al 2024; Basri, et.al 2024) found that the BOPO variable affects Islamic banking profitability negatively and significantly.

**H5: BOPO negatively affects the *BUS* Profitability**

### **Non-Performing Finance (NPF)**

The ratio of non-performing financing which is explained in signal theory if NPF increases, there are many financing problems:

$$NPF = \frac{\text{Non-Performing Financing}}{\text{Total Financing}} \times 100\%$$

Research conducted by (Maulidah, et. al 2024; Gunanto 2023) stated that the NPF variable affects Islamic banking profitability positively and significantly, while research researched by (Yuniar & Yuningsih 2023; Dwinanda & Tohirin 2021) states that the NPF variable affects Islamic banking profitability negatively and significantly.

**H6: NPF negatively affects the *BUS* Profitability**

### Financing to Deposit Ratio (FDR)

Measurement of the amount of financing provided by the bank with the amount of deposits received, explained in signal theory if FDR rises then it is good for bank profitability:

$$FDR = \frac{\text{Total Financing}}{\text{Third-Party Funds}} \times 100\%$$

Research conducted by (Muhammad Yusuf & Rahmadani Hidayat 2022; Gazi et al. 2024) states the results that FDR negatively affects the Islamic banking profitability, while the research studied (Dewi Setiawati 2024) states that the FDR variable does not affect Islamic banking Profitability.

### H7: FDR positively affects the *BUS* Profitability

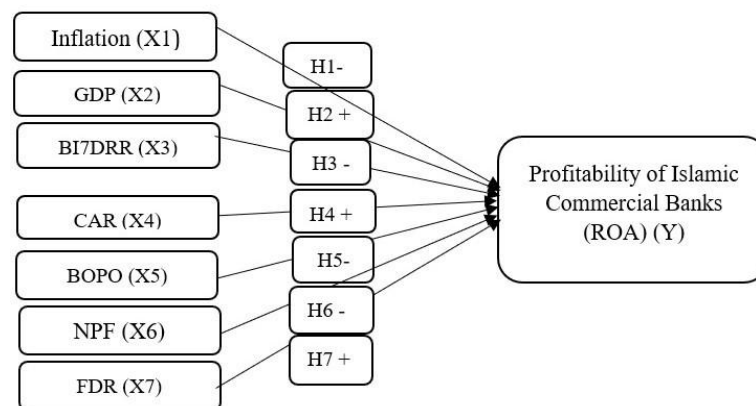


Figure 1. Thinking Framework

## 3 Research Methods

Quantitative this type of research, the data collection technique is secondary data is a data collected and obtained by a researcher who comes from the results of financial reports. (Sugiyono, 2021). In the secondary data collection technique taken with documentation techniques then using IBM SPSS 29 software as data processing. The independent variables in this study are macroeconomic indicators (Inflation (X1), GDP (X2), BI7DRR (X3)), as well as internal bank indicators (CAR (X4), BOPO (X5), NPF (X6) and FDR (X7)) on Profitability (ROA) (Y) as the dependent variable.

This research is focused on the type of Islamic banking, namely Islamic Commercial Banks (*BUS*). Data is taken from *BUS* financial reports on an annual basis for 2019-2023, as well as reports on macroeconomic variables obtained from routine Bank Indonesia web reports, the Central Statistics Agency (*BPS*) on an annual basis. In 2023 there were 13 *BUS* operating, but after using the purposive sampling technique, 11 *BUS* were obtained that met the criteria, while the sampling criteria for the object of research were:

- BUS* operating in the 2019-2023 period, which are recorded in *BPS* and *OJK* data.
- BUS* routinely publishes audited annual financial reports starting in 2019-2023 on the bank's website and the *OJK* page.
- BUS* in the pre-merger and post-merger criteria operating from the 2019-2023 period.

Based on these requirements, there are 11 Islamic Commercial Banks (*BUS*) that meet the criteria, namely: *Bank Victoria Syariah*, *Bank Aceh Syariah*, *Bank BPD Nusa Tenggara Barat Syariah*, *Bank Muamalat*, *Bank Mega Syariah*, *Bank BCA Syariah*,

*Bank BTPN Syariah, Bank Panin Dubai Syariah, Bank Syariah Bukopin, Bank Jabar Banten Syariah, Bank Syariah Indonesia.* BSI pre-merger financial data was obtained using that combines the data of 3 pre-merger BSI Banks. The data processing uses the multiple linear regression analysis formula which has the formula:

$$ROA = \alpha_i + \beta_1 \text{ Inflation} + \beta_2 \text{ GDP} + \beta_3 \text{ BI7DRR} + \beta_4 \text{ CAR} + \beta_5 \text{ BOPO} + \beta_6 \text{ NPF} + \beta_7 \text{ FDR} + e$$

## 4 Results and Discussion

### 4.1. Result

#### 4.1.1. Classical Assumption Test

Testing is done before entering into hypothesis testing, there are 4 stages (Sahir, 2021)

##### a. Normality Test

Predict Use the normality test function to predict and determine whether the study data is normally distributed. The Kolmogorov-Smirnov normalcy test table shows the findings of the normalcy test used in this investigation:

**Table 3. Normality Test Results**  
**One-Sample Kolmogorov-Smirnov Test**

		Unstandardized Residual
N <sup>s</sup>		55
Normal Parameters <sup>bs</sup>	Mean <sup>s</sup>	.0000000
	Std. Deviation <sup>s</sup>	2.11780241
Most Extreme <sup>s</sup> Differences <sup>l</sup>	Absolute <sup>s</sup>	.257
	Positive <sup>s</sup>	.257
	Negative <sup>s</sup>	-.176
Test Statistic <sup>l</sup>		.257
Asymp. Sig. (2-tailed) <sup>c</sup>		.200

Source: IBM SPSS 29 (Data processed September 2024)

There is a significance value of  $0.200 > 0.05$ , meaning that the research is normally distributed.

##### b. Multicollinearity Test

Predicting the similarity value between independent variables in a research model is a function of the multicollinearity test:

**Table 4. Multicollinearity Test Results**

	Collinearity Statistics <sup>l</sup>	
	Tolerance <sup>l</sup>	VIF <sup>3</sup>
INFLATION	0.677	1.477
GDP	0.630	1.588
BI7DRR	0.772	1.295
CAR	0.814	1.228
BOPO	0.746	1.341



NPF	0.755	1.324
FDR	0.838	1.194

Source: IBM SPSS 29 (Data processed September 2024)

There It was found that all VIF values of each variable were smaller than  $<10$ , and the Tolerance value  $> 0.100$ , therefore all of the variables in this study passed the multicollinearity test.

### c. Heteroscedasticity Test

Ascertain whether or not there is an inequality of variance of an observation as a function of heteroscedasticity:

**Table 5. Heteroscedasticity Test Results**  
Coefficients

Unstandardized Coefficients			Standardized Coefficients	T	Sig. <sup>2</sup>
B	Std. Error		Beta		
(Constant)	6.895	2.909		2.371	.022
INFLATION	-.004	.315	-.002	-.013	.990
GDP	.145	.156	.168	.927	.359
BI7DRR	-.283	.396	-.117	-.715	.478
CAR	.004	.020	.030	.190	.850
BOPO	-.001	.015	-.014	-.082	.935
NPF	-.001	.208	-.016	-.096	.924
FDR	.006	.017	.050	.320	.750

Source: IBM SPSS 29 (Data processed September 2024)

The results in the Sig column of the Park Test of each variable value  $> 0.05$ , therefore, all research variables pass the Heteroscedasticity test.

### d. Autocorrelation Test

Seeing whether or not there is a correlation from one year to the previous year is a function of autocorrelation. In this study, the autocorrelation test was obtained through the Durbin-Watson test:

**Table 6. Autocorrelation Test Results**  
Model Summary<sup>b</sup>

R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson <sup>1</sup>
.943 <sup>a</sup>	.890	.873	50.93543	1.960

Source: IBM SPSS 29 (Data processed September 2024)

Obtained from the Durbin Watson test results above, the resulting DW value is 1.960, the dU value is 1.8607, the 4-dU value is 2.1393, dL is 1.2940 resulting from the  $dU < dW < 4-dU$  formula where the value is  $1.8607 < 1.960 < 2.1393$  which indicates that these results do not occur autocorrelation problems from each variable, it is concluded that all the variables of this study pass the Autocorrelation test.

#### 4.1.2. Multiple Linear Regression Analysis

The results of the panel data test show how each independent variable affects the dependent variable, which is the purpose of this analysis. The coefficient in column B can be found in the data processing research findings above:

**Table 7. Multiple Linear Regression Analysis Results Coefficients<sup>a</sup>**

	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B <sup>1</sup>	Std. Error	Beta		
(Constant) <sup>4</sup>	9.377	2.495		4.068	0,000
INFLATION	-0.280	0.270	-0.117	-0.119	0.906
GDP	0.249	0.134	0.086	2.098	0.041
BI7DRR	-0.234	0.340	-0.072	-0.827	0.412
CAR	0.001	0.017	0.006	3.430	0.001
BOPO	-5.336	0.013	-0.785	-7.368	0,001
NPF	-10.483	0.178	-0.048	-2.673	0.010
FDR	0.022	0.015	0.151	1.482	0.145

Source: IBM SPSS 29 (Data processed September 2024)

Each independent variable which can be formulated as follows:

$$\text{ROA} = 9.377 - 0.280 \text{ Inflation} + 0.249 \text{ GDP} - 0.231 \text{ BI7DRR} + 0.001 \text{ CAR} - 0.097 \text{ BOPO} - 0.080 \text{ NPF} + 0.022 \text{ FDR} + e$$

From the figures obtained, the panel data regression equation can be explained if the constant value is 9.377, which means that if the independent variable is 0, then profitability (ROA) will be 9.377. Inflation is worth -0.280, BI7DRR is worth -0.231, BOPO is worth -0.097, and NPF is worth -0.080, which illustrates that if inflation, BI7DRR, BOPO, and NPF increase by 1%, then BUS ROA decreases by the value of the above variables. While GDP is worth 0.249, CAR is worth 0.001, and FDR is worth 0.022, stating that if these variables increase by 1%, ROA will increase.

#### 4.1.3. Hypothesis Test

##### a. Coefficient of Determination test

Observing The purpose of this test is to determine how strongly each dependent variable influences the dependent variable on its own. In this instance, it can demonstrate the degree to which the dependent variables (Inflation, GDP, BI7DRR, CAR, BOPO, NPF, and FDR) impact the independent variable (ROA BUS). Adjusted R Squared is the value of the coefficient of determination.

**Table 8. Coefficient of Determination Results Model Summary<sup>b</sup>**

R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
.943 <sup>a</sup>	.890	.873	50.93543	1.960

Source: IBM SPSS 29 (Data processed September 2024)

The Adjusted R Squared value is 0.873. means that the dependent variable in the model influence the independent variable (ROA) by 87.3% while the remaining 12.7% comes from the impact outside the research variable.

#### b. F-Test

The significance F value is 0.001 < 0.05, and the value of  $F > F$  table is  $10,174 > 2.24$ . This means that the research variables affect ROA simultaneously.

**Table 9. F Test Results**

ANOVA					
Sum of Squares		Df	Mean Square	F <sup>a</sup>	Sig. <sup>3</sup>
Regression	367.009	7	52.430	10.174	0,001 <sup>b</sup>
Residual	242.195	47	5.153		
Total	609.204	54			

Source: IBM SPSS 29 (Data processed September 2024)

#### c. T-Test

This test's purpose is to reveal the somewhat significant relationship between the independent and dependent variables. The dependent variable has a considerable impact on the independent variable if the probability value is < 0.05.

**Table 10. T-Test Results**

Independent Variable (X)	t-table	T-Count	Sig.	Partial Effect
Inflation	1.67722	-0.119	0.906	Not Significant
GDP	1.67722	2.098	0.041	Significant (+)
BI7DRR	1.67722	-0.827	0.412	Not Significant
CAR	1.67722	3.430	0.001	Significant (+)
BOPO	1.67722	-7.368	<,001	Significant (-)
NPF	1.67722	-2.673	0.010	Significant (-)
FDR	1.67722	1.482	0.145	Not Significant

Source: IBM SPSS 29 (Data processed September 2024)

The results of the t-test can be concluded that there is a positive influence between GDP and CAR with BUS profitability for the 2019-2023 period, there is also a negative influence between the BOPO and NPF variables on BUS profitability for the 2019-2023 period, while the Inflation, BI7DRR, and FDR variables have no effect on BUS profitability for the 2019-2023 period in Indonesia.

## 4.2. Discussion

### Impact of Inflation on the Profitability

The inflation (X1) value is  $0.906 > 0.05$  and the t-value is  $-0.119 < 1.67722$ . This shows that the inflation variable has no impact on the profitability of Islamic Commercial Banks in Indonesia from 2019-2023, which means that H1 is rejected. The results of this study are in line with the findings of previous studies (Maulidah, et.al 2024; Selayan, et.al 2023; Jarbou et al., 2024). This indicates that the existence of the inflation phenomenon

will not increase and reduce the quality of BUS profitability in Indonesia. This is because the products they offer, such as Musyarakah and Mudharabah, and sukuk tend to be more flexible. In the context of signal theory, the absence of the effect of inflation on ROA can be a positive signal for investors and other stakeholders because this system makes Islamic banks more resilient to fluctuating conditions.

These findings imply that Islamic banks can focus on profit sharing-based products, emphasize Islamic value-based differentiation, expand the market based on inflation resistance, and increase Islamic financial literacy and inclusion in the community. However, research conducted by (Asep Kholidul Mufid, 2023) in Malaysia states that the profitability of Islamic banks there is directly affected by inflation due to their sensitivity to sharia-based monetary policy.

### **Impact of GDP on the Profitability**

The GDP (X2) value is  $0.041 < 0.05$  and the t value  $2.098 > 1.67722$ , the results showed that the GDP variable influenced the profitability of Islamic Commercial Banks positively and significantly for the 2019-2023 period, meaning that H2 was accepted. The results of this study are researched by (Gunanto 2023; Syarifa, Nasution et.al 2023). The increase in GDP is also evidence of the cause of increasing the wealth or income of each individual, as well as business groups which can certainly increase investment or saving patterns in the scope of Islamic banking, especially BUS in Indonesia, which in turn will increase the profitability of Islamic banks.

Of course, this result is in line with the signal theory which states that if GDP increases, ROA will also increase, and has a positive impact because Islamic banks can follow economic growth and can contribute to the level of financial inclusion through sharia principles. good economic growth reflects economic stability which can increase demand for financing. because bank capital will be greater in raising funds so it will have the potential to get large profits as well. This implication can be felt by all of us, such as the great potential of GDP on BUS ROA, so that Islamic banks will grow in developing countries. Regulations must be made by economic growth information. The results of this study are also similar in Malaysia where Malaysia has a Sharia Advisory Council institution that provides more strategic direction than similar institutions in Indonesia.

### **Impact of BI7DRR on the Profitability**

The BI7DRR (X3) value is  $0.412 > 0.05$  and the t value is  $-0.827 > 1.67722$ , the result shows that the BI7DRR variable on profitability does not affect, which means H3 is rejected. The study results are in line with the study researched by (Gunanto 2023; Prastiwi 202), Based on signal theory, this is seen as a positive signal because Islamic banks have resilience to changes in market interest rates. However, it is not in line with signal theory. This can also occur because Islamic banking in its system adheres to a profit-sharing system so that the benchmark interest rate is not the main influence in the ups and downs of BUS profitability in Indonesia for the 2019-2023 period.

In sharia principles, there should be no elements of usury or interest in the system, the level of public trust in Islamic banking in Indonesia will also increase. BUS implementation in developing countries must pay attention to internal bank factors, and is

sometimes also hampered by regulations and operations that are more dominant in developing countries. While interest rates have a strong signal in developed countries to affect the performance of Islamic banks, because they have not fully relied on mature sharia principles. In the future, Islamic banks should simply focus on managing asset-based financing products such as murabaha or musyaraka by Islamic principles, and adopt a business model that prioritizes financial inclusion. In Malaysia, interest rates are utilized to adjust the offering of Islamic-based products such as sukuk and capital markets. Of course, this difference reflects a more advanced regulatory infrastructure and government involvement to support the growth of the Islamic banking sector.

### **Impact of CAR on the Profitability**

The CAR value ( $X_4$ ) is  $0.001 < 0.05$  and the t-value is  $3.430 > 1.6772$ , it is found that the CAR variable affects the profitability of Islamic Commercial Banks for the 2019-2023 period positively and significantly, which means that  $H_4$  is accepted. The results of this study are researched (Maulidah, et.al 2024; Gunanto 2023). The increase in CAR will cause the ROA level of the BUS to also increase, with the higher CAR level of a BUS it will have a positive impact on the management of operational management and in the distribution of financing. This result is also by the signal theory, namely if CAR increases, the better the level of performance and profitability of the BUS. This research reflects that it has sufficient reserves to deal with uncertainty. Islamic banks must manage risk-based assets and financing to strengthen their position in the face of economic uncertainty and regulatory changes. When compared to developed countries that implement Islamic banking, it will be much more pronounced due to the existence of clear regulations. In various countries, the role of CAR in Islamic banks is also very important in profitability (Mohd et al., 2024; Asep Kholidul Mufid, 2023).

### **Impact of BOPO on the Profitability**

The BOPO value ( $X_5$ ) is  $0.001 < 0.05$  and the t value is  $-7.368 > 1.67722$ , there are results that the BOPO variable negatively and significantly affects profitability which means that  $H_5$  is accepted, the results of this study are researched by (Yuniar & Yuningsih 2023; Dwinanda & Tohirin 2021). If the BOPO ratio rises, the ROA value will be lower if it is not offset by an increase in operating income and the company's margins will be depressed, the company's operational efficiency will lead to reduced assets. A good BOPO value is below 75%, the lower the BOPO value, the better the company's efficiency level, the results of this study are in line with signal theory which indicates that high operating costs give a bad signal to the market about the ability of bank management to manage resources. Malaysia is also the same as BUS profitability has a negative effect on ROA, in developing countries, this may occur due to the lack of efficient infrastructure (Asep Kholidul Mufid, 2023; Mohd et al., 2024). In the results of this study, it is hoped that investors will be careful about BUS. Banks need to use technology and improve internal processes to reduce BOPO, which will have a positive impact on ROA and their overall performance.

### Impact of NPF on the Profitability

The NPF value is (X6) is  $0.010 < 0.05$  and the t value is  $-2.673 > 1.67722$ , there are results that the NPF variable affects profitability negatively and significantly which means that H6 is accepted, the results of this study are by the study researched by (Yuniar & Yuningsih 2023; Dwinanda & Tohirin 2021) This can happen if the value of non-performing financing increases which can reduce the profitability value of *BUS* in Indonesia, and vice versa if the NPF level is small, it will be able to increase the ROA profitability value of *BUS* in Indonesia. These results are in line with especially signal theory when applied to Islamic banking which has unique characteristics in risk management. The implications that can be taken in this result are to improve risk analysis, portfolio diversification, and increase the efficiency of the collection process. In Malaysia NPF also has a negative effect on *BUS* profitability but is more controlled in Malaysia due to a stronger supervisory system (Asep Kholidul Mufid, 2023; Mohd et al., 2024).

### Impact of FDR on the Profitability

The FDR value is (X7) is  $0.145 < 0.05$  and the t value is  $1.482 < 1.67722$ , there are results that the FDR variable does not affect on profitability, meaning that H7 is rejected, and no matter how much the FDR value changes, it will not have an impact on the rise and fall of profitability, it can be seen in Figure 1. In 2019-2023 the FDR value is high but does not lead to a definite ROA condition. The ineffectiveness of this variable may be due to the business orientation of Islamic banks which is not only in the financing sector but also in the investment sector, Fee Based Income. The results of this study are in line with the study researched by (Muhammad Yusuf & Rahmadani Hidayat 2022; F. K. Dewi & Sudarsono 2021). The results of this study are not in line with the signal theory that the ratio of financing to third-party funds can have a positive effect on ROA. in the study it is stated that within the research period the company is assumed to obtain stable deposits and the company by maintain liquidity by the proportion of funds disbursed and incoming funds. The results of this study imply that we must focus on the quality of financing, diversify products, and conduct liquidity management. In Malaysia, the value of FDR tends to affect profitability, although many data vary in results (Asep Kholidul Mufid, 2023; Mohd et al., 2024).

## 5 Conclusion

This study makes a significant contribution regarding the various factors that affect the profitability of Islamic Commercial Banks in Indonesia. It was found that Inflation, BI7DRR, and FDR variables do not influence ROA. This shows that the stability of monetary policy does not affect the profitability of Islamic Commercial Banks in Indonesia because operationally Islamic banking does not adhere to the interest system in its governance, good financing management also illustrates the results of this study so that it makes the variable ineffectiveness. Meanwhile, the GDP and CAR variables have a positive and significant effect on ROA, because income and capital adequacy are important players in determining profitability, with these results it is hoped that policymakers can develop strategies to attract investors or customers to invest their funds

in Islamic Commercial Banks, the better the GDP and CAR in a company means that ROA will increase and will send a positive signal of the company to the public.

Conversely, the BOPO and NPF variables affect ROA negatively and significantly, which means that the higher the BOPO and NPF, the lower the level of profitability of Islamic commercial banks in Indonesia. By focusing on efficiency, capital resilience, and risk management, Islamic commercial banks in Indonesia can increase their competitiveness and take advantage of the high market growth potential in the future. Of course, sharia compliance incentives, sukuk development, increasing Islamic financial literacy and government synergy related to macroeconomic and sharia policies need to be emphasized. The results of this study are expected to be used as one of the decision-making tools for interested parties, and it is hoped that this research can be used as a reference for future researchers to add other variables and coverage of other objects at the national and international levels on a larger scale.

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