

# The Effect of Sale-and-Purchase Financing and Profit-Sharing Financing on the Return on Assets (ROA) at Sharia Commercial Banks for the 2023–2024 Period

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**Abstract:** This research is inspired by the importance of improving the profitability of Sharia Commercial Banks amid rapid industry growth, yet they still face challenges in financial performance. The purpose of this research is to examine the impact of sale-purchase financing and profit-sharing financing on profitability levels, which is calculated using Return on Assets (ROA). The variables used include murabahah, istisna, mudharabah, and musyarakah financing as independent variables. This research adopts a quantitative method using by applying panel data regression analysis. The data utilized comprises secondary data presented as quarterly financial statements from Sharia Commercial Banks for the 2023–2024 period, obtained from the Financial Services Authority (OJK) and the respective banks' publications. The analytical model employed is the Fixed Effects Model, following model determination tests along with classical assumption testing. The results indicate that, individually, murabahah, istisna, and musyarakah financing do not have a significant effect on ROA. Murabahah and musyarakah financing exhibit a negative relationship, while istisna shows a positive relationship. Meanwhile, mudharabah financing exerts a favorable and statistically substantial influence on ROA. Simultaneously, all types of financing variables have a statistically significant impact on profitability. The adjusted coefficient of determination (Adjusted R<sup>2</sup>) value of 90.4% demonstrates that the variations in ROA are accounted for by these four financing variables, whereas the remaining is impacted by additional factors not included in the study by the model. The conclusion of this study is that profit-sharing-based financing, particularly mudharabah, makes a significant role in improving Islamic banks' profitability, whereas other financing methods have not yet demonstrated a significant individual impact. Hence, Islamic banks are required to optimize the management of profit-sharing-based financing to improve financial performance.

**Keywords:** Murabahah, Istisna, Mudharabah, Musyarakah, ROA

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## 1. INTRODUCTION

In recent years have seen a good trend in the growth of Indonesia's Islamic banking industry, which is seen through an increase of assets, the number of clients, and advancements in Sharia-based financial products. This is supported by Law No. 21 of 2008 concerning Islamic Banking, which serves as the legal foundation for the operations of Islamic banking in Indonesia. Based on data published by the Financial Services Authority (OJK), total Islamic banking assets have continued to see significant growth, reaching Rp892 trillion in 2023 and projected to rise to Rp980,30 trillion in 2024 [1][2]. Nevertheless, this growth has not yet been fully accompanied by optimal profitability. This is reflected in the *Return on Assets (ROA)* of Sharia Commercial Banks, which remains lower than that of conventional banks—1.84% versus 2.12% in 2023 and 1.78% versus 2.09% in 2024 [3]. This situation indicates that the expansion in business scale has not yet been fully matched by efficiency in asset management and financing. The development of Sharia Commercial Banks' profitability can also noticeable in the following table 1:

*Table 1. Development of Sharia Commercial Banks' ROA Profitability for the 2020–2024 Period*

Tahun	2020	2021	2022	2023	2024
ROA (%)	1,40	1,55	2,00	1,88	<b>2,07</b>

*Source: OJK Sharia Banking Statistics for the period December 2020 to December 2024*

Based on Table 1, information from the Financial Services Authority of Indonesia (OJK) indicated that the ROA of Islamic Commercial banks has increased from 2020 to 2024, rising from 1.40% in 2020 to 2.07% in 2024. Although there was a decline in 2023, this trend indicates that asset management by Islamic banks is becoming increasingly efficient in addressing various challenges to maintain profitability stability.

As an intermediary institution, the primary revenue stream for Islamic banks comes from funding activities, including both sale-and-purchase-based transactions such as murabahah and istishna', and profit-sharing-based transactions such as mudharabah and musyarakah. The growth of these financing activities is shown in table 2 below:

*Table 2. Development of Sharia Commercial Bank Financing for the Period 2020–2024 (in billions of rupiah)*

Pembiayaan	2020	2021	2022	2023	2024
<b>Murabahah</b>	136.990	144.180	183.286	191.795	193.852
<b>Istisna</b>	21	4	3	2	1
<b>Mudharabah</b>	4.098	3.629	3.623	5.198	6.608
<b>Musyarakah</b>	92.279	95.986	121.389	154.152	191.641

*Sumber: Statistik Perbankan Syariah OJK untuk Periode Desember 2020 hingga Desember 2024*

Based on Table 2, statistics released by the Financial Services Authority (OJK) show that financing by Islamic Commercial Banks experienced positive development throughout the period from 2020 to 2024. Murabahah financing continued to increase from 136,990 in 2020 to 193,852 in 2024, although its growth rate began to plateau after 2022. Musyarakah financing nearly doubled from Rp92.279 billion to Rp191.641 billion. On the other hand, Mudharabah financing showed gradual growth, especially in 2023–2024, while Istisna' financing experienced a drastic decline from Rp21 billion in 2020 to Rp1 billion in 2024. This indicates that the financing preferences of Islamic banks are dominated by sales and partnership contracts, rather than other types of contracts.

Although financing is the main source of revenue for Islamic banks, the contribution of each type of financing to the bank's profitability has not yielded consistent results. Several previous studies have produced varied results, where murabahah and mudharabah financing have a positive effect on profitability. [4], [5]. On the other hand, musyarakah financing tends to show negative effects or does not have a significant impact [6]. Meanwhile, istishna' financing does not have a significant impact on ROA, either partially or simultaneously [7], [8].

Differences in the findings of this study indicate that there is a gap in the research that requires further investigation, especially by using the latest data and a broader scope of research objects. Therefore, the aim of this study is to use quantitative methods through panel data analysis techniques to analyze the impact of profit-sharing and sales financing on the profitability of Islamic Commercial Banks in Indonesia during the 2023-2024 period.

The use of the most recent data period after the economic recovery, as well as simultaneous and partial testing of the four main financing forms—murabahah, istisna', mudharabah, and musyarakah—which cover all Islamic Commercial Banks in Indonesia, is what makes this research innovative. Therefore, it is expected that this study can provide an empirical contribution to the development of Islamic banking literature and serve as a reference source for practitioners who wish to improve profitability performance through more optimal financing management.

## 2. THEORETICAL FOUNDATION

### 2.1 Signal Theory

*Signal theory argues that companies convey data information to external parties as a signal regarding the company's condition. In this context, profitability is important in assessing bank performance. [9]. Signal theory suggests that companies should send signals to external parties through*

the disclosure of accounting data information, such as financial statements that reflect the results desired by the owners, or promotional materials and other information that highlight the company's advantages compared to its competitors. These signals reflect the success or failure of management in meeting the expectations of the owners, with financial statements containing accurate and relevant information for both internal and external users.[10].

## **2.2 Islamic Banking Performance Framework**

To enhance contributions in the academic field, the findings of this research can be incorporated into the framework of Islamic Banking Performance, which has many dimensions. Research from various sources around the world indicates that the performance of Islamic banks cannot be assessed solely based on profit indicators, but must also consider aspects of Sharia compliance, operational efficiency, and governance practices[18]. Approaches such as Sharia Conformity and Profitability (SCnP) and the Maqashid Sharia Index assert that there is a potential trade-off between achieving profit and fulfilling Sharia objectives, so performance evaluation must be conducted in an integrated manner[19]. Furthermore, empirical evidence shows that the relationship between Sharia compliance and profitability is not always linear. This is influenced by various internal factors such as intellectual capital and management efficiency[20]. In this context, profit-sharing based financing, such as mudharabah, has a stronger connection with the real sector and theoretically can improve the quality of bank performance in the long term. However, its implementation still faces a dilemma between potential returns and risks, so its effectiveness is highly dependent on the quality of risk management and bank governance.

## **2.3 Return On Assets**

*Return On Assets (ROA) is a financial ratio that measures a company's ability to generate profit from all of its total assets. According to Bank Indonesia standards, an ROA of more than 1.5% is considered good. However, an ROA of less than 1.5% indicates that the bank's performance is poor.*[11]. An economist named Hery stated that a higher return on assets indicates that the net profit earned is greater for every rupiah invested in total assets.

## **2.4 Murabahah Financing**

Murabahah is defined by PSAK 102 as a sales transaction contract for products with a selling price equivalent to the purchase price plus a pre-agreed profit margin. Murabahah is a concept implemented through the sale of goods with installment/credit payments, such as the purchase of motor vehicles, cars, and mortgages, with an additional profit margin determined for the bank.[12].

## **2.5 Istisna Financing**

Istisna is a sales contract in the form of an order for the manufacture of a specific product characterized by terms agreed upon by the buyer (mustashni') and the seller (producer, shani'). In Istisna' financing, this contract is specifically intended for a sale and purchase agreement in the form of an order, where the transaction object consists exclusively of manufactured products, such as the construction of houses, buildings, biodiesel processing machines, and so on.[13].

## **2.6 Mudharabah Financing**

"Mudharabah" comes from the word "dharb," which means 'journey' or "to travel." In the Quran, the root of the word mudharabah, dha-ra-ba, appears fifty-eight times, although it does not explicitly refer to the concept of mudharabah. According to Wahbah Zuhayli, one of the meanings of mudharabah is to travel throughout the earth (al-sir fi al-ardh)[14]. Terminologically, mudharabah financing is a cooperation agreement between the capital provider (shahibul maal) and the fund manager (mudharib) to run a business based on a profit-sharing system. Mudharabah has become a popular financing method because it aligns with Sharia principles and is relevant for the development of MSMEs (Micro, Small, and Medium Enterprises). Nevertheless, its implementation still faces various challenges, such as limited public understanding and the importance of optimal risk management.[15].

## **2.7 Musyarakah Financing**

Musyarakah comes from the term al-syirkah, referring to "ikhtilath," or the combination of two or more elements that are difficult to distinguish from each other. According to PSAK 106, profit from musyarakah financing is shared according to the proportion agreed upon by both parties, while the amount of loss is allocated based on the amount of capital invested.[16]. The objects of musyarakah financing include business capital and business activities (labor/'amal)[17].

**3. METHOD**

**3.1. Type of Research, Population, and Sample**

This research uses a quantitative research design with an associative approach. The data used are secondary data obtained through the financial reports of Islamic Commercial Banks (BUS) for the period 2023-2024. In this study, sampling was conducted using a purposive sampling method, with the following criteria:

1. Islamic Commercial Banks registered in the financial report database of the Financial Services Authority (OJK) during the period 2023-2024.
2. Islamic Commercial Banks that published complete quarterly financial reports during that period.
3. Islamic Commercial Banks that produced financial ratios such as ROA and offered murabahah, istisna', mudharabah, and musyarakah financing.

*Table 3. Sample Selection Procedure*

Description	Quantity
Islamic Commercial Banks registered in the financial report database of the Financial Services Authority (OJK) during the period 2023-2024.	13
Islamic Commercial Banks that published complete quarterly financial reports during that period.	13
Islamic Commercial Banks that produced financial ratios such as ROA and offered murabahah, istisna', mudharabah, and musyarakah financing.	4
<b>The number of banks that are the research sample</b>	<b>4</b>

*Source: Data Processed by Researchers 2025*

Based on the table above, a sample of four Sharia Commercial Banks was obtained: Bank Muamalat Indonesia, Bank Jabar Banten Syariah, Bank Syariah Indonesia, and Bank KB Bukopin Syariah, which meet the criteria as samples. Therefore, the total sample used in the research analysis is 32 observation data.

**3.2. Data Collection Techniques**

This study uses secondary data obtained from the Central Bureau of Statistics (BPS), the Financial Services Authority (OJK), and quarterly reports of Sharia Commercial Banks, which are available on the official websites of each bank.

**3.3. Operational Definition of Variables**

To measure and identify certain variables in the field with clear and concise explanations, and to avoid ambiguous interpretations, operational definitions of variables can be used. The operational systematics of the variables can be explained through the following table:

*Table 4. Operational Definition of Variables*

Variable	Operational Definition	Source	Unit
Variable dependen Profitability Return On Asset (ROA) (Y)	ROA shows a bank's ability to generate net profit by using all of its assets. The higher the ROA value indicates that the bank is more efficient in managing its assets to generate profit.	Central Statistics Agency (BPS)	Ratio
Variable independen	Murabahah (X <sub>1</sub> )	Financial Services Authority (OJK)/Statistics/Banking/Financial Publication Report	Ratio
	Istisna (X <sub>2</sub> )	Financial Services	Ratio

		bank acts as the seller and the customer as the buyer. The ordered goods will be produced according to the criteria specified by the customer. The customer is allowed to make payments after the goods are received in stages according to the agreement established initially. The proportion of Istisna financing to the total bank financing is seen from the quarterly reports of Islamic Commercial Banks in the cash balance sheet report.	Authority (OJK)/Statistics/Banking/Financial Publication Report	
	Mudharabah ( $X_3$ )	Mudharabah financing is a cooperative contract between a bank and a customer in a business. The capital is 100% provided by the bank, and the customer is only responsible for managing these funds. If profits are earned, they will be distributed according to the profit-sharing ratio agreed upon at the beginning, and if losses occur, they are entirely the responsibility of the bank (without any negligence on the part of the customer). The proportion of Mudharabah financing to the total bank financing is seen from the quarterly report of the Islamic Commercial Bank in the cash balance sheet report.	Financial Services Authority (OJK)/Statistics/Banking/Financial Publication Report	Ratio
	Musyarakah ( $X_4$ )	Musyarakah financing is a cooperation agreement between a bank and one or more customers in a business. Each party contributes capital to run the joint business and has the right to earn profits according to the portion or profit-sharing ratio agreed upon. If the business incurs losses, all parties are jointly responsible without causing harm to any party. The proportion of Musyarakah financing to the bank's total financing is seen from the quarterly report of the Sharia Commercial Bank on the cash balance sheet report.	Financial Services Authority (OJK)/Statistics/Banking/Financial Publication Report	Ratio

**3.1. Data Analysis Techniques**

This research employs panel data modeling to perform multiple linear regression analysis. The researchers chose the Eviews software to analyze their data, which includes panel data regression techniques. There are three types of panel data regression approaches: the Common Effects Model (CEM), the Fixed Effects Model (FEM), and the Random Effects Model (REM). To conduct the panel data regression test, the model was selected using the Chow test and the Hausman test. Furthermore, the analysis utilized classical assumption tests, model specification tests, multiple linear regression, and hypothesis testing.

1. Classical Assumption Tests
  - a. Normality Test

Whether the residuals are normally distributed can be determined using a normality test. The Jarque-Bera (JB) test can be used to assess the normality of a regression model, provided that the residuals follow a normal distribution. According to the rules, a significance level  $> 0.05$  indicates acceptance of the null hypothesis because the data are normally

distributed; if the significance level is  $< 0.05$ , the null hypothesis is rejected because the data are not normally distributed[21] .

b. Multicollinearity Test

A multicollinearity test is performed to verify whether the independent variables in the regression model have a correlation with each another. In an ideal regression model, there should not be any relationship among these explanatory variables. Independent variables are said to be non-orthogonal when a correlation exists among them. Explanatory variables with a correlation coefficient of zero are known as orthogonal variables. The tolerance value and the variance inflation factor (VIF) reflect the degree of relationship between the independent variables within the regression model, so they can be used to detect the presence of multicollinearity. If the VIF value is  $< 10$  or the tolerance value is  $> 0.01$ , then multicollinearity does not occur. Conversely, if the VIF value is  $> 10$  or the tolerance value is  $< 0.01$ , multicollinearity is considered to be present [21] .

c. Heteroscedasticity Test

A heteroscedasticity test is conducted to determine whether the residuals in a regression model vary from one observation to another. The Glejser test is one method for detecting heteroscedasticity. There is no heteroscedasticity if the significance level is  $> 0.05$ , and there is heteroscedasticity if the significance level is  $< 0.05$ [8] .

d. Autocorrelation Test

The autocorrelation test is used to determine whether there is a correlation between the residuals of one observation and those of another in a regression model. A prerequisite that must be met is the absence of autocorrelation in the regression model. The autocorrelation test can be performed using the Durbin-Watson (DW) test to determine the presence or absence of autocorrelation. Decisions regarding the presence or absence of autocorrelation are made using the DW table criteria at a 5% significance level, as follows:

- a. If  $d < dL$ , there is positive correlation
- b. If  $dL < d < dU$ , no conclusion can be drawn
- c. If  $dU < d < 4-dU$ , there is no positive or negative correlation
- d. If  $4-dU < d < 4-dL$ , no conclusion can be drawn
- e. If  $d > 4-dL$ , there is a negative correlation

2. Model Specification Test

a. Chow Test

The Chow test is utilized to determine whether the *common-effects model* (OLS) or the fixed-effects model is the most suitable for panel data estimation. If the p-value exceeds than 0.05,  $H_0$  is accepted while  $H_1$  is rejected, meaning the *common-effects model* is selected. Conversely, if the probability value is less than 0.05,  $H_0$  is rejected and  $H_a$  is accepted, indicating the *fixed-effects model* is selected [22] .

b. Hausman Test

The Hausman test is applied to determine whether the fixed-effects or random-effects model is the most suitable for estimating panel data. If the *chi-square* probability value is below than 0.05, then  $H_0$  is accepted and  $H_a$  is rejected, meaning the fixed-effects model is selected. On the other hand, if the *chi-square* probability value is above than 0.05, then  $H_0$  is rejected while  $H_a$  is accepted, indicating that the random-effects model is more appropriate [23] .

c. Test of Simultaneous Effect Significance (F-Test)

The test of simultaneous effect is aims to assess whether the independent variables jointly or simultaneously affect the dependent variable[4]. The criteria for the F-test are defined as follows: if the computed F-value is significant ( $F_{calc} > F_{tab} < 0.05$ ), then  $H_0$  is rejected while  $H_1$  is accepted, which indicates that the independent variables simultaneously affect the dependent variable. Conversely, if the computed F-value is not significant ( $F_{calc} < F_{tab} > 0.05$ ), then  $H_0$  is accepted and  $H_1$  is rejected, indicating that the independent variables do not simultaneously affect the dependent variable[21].

d. Coefficient of Determination ( $R^2$ ) Test

The fit of the regression model is assessed using  $R^2$  is the coefficient of determination. The results indicate the degree to which the dependent variable is influenced by the

independent variables, whereas the remaining variation is attributed to other factors beyond the model. The coefficient of determination varies between zero and one. A closer the coefficient value is to one, the more the independent variables explain the variation of the dependent variable.

3. Multiple Linear Regression

Regression analysis is employed to assess the degree of association between independent variables and the dependent variable. This analysis is called simple linear regression when there is a single independent variable and one dependent variable; conversely, when there are multiple independent or dependent variables, it is known as multiple linear regression. Which is an analysis that is used to determine the direction and influence involving more than one independent variable. The multiple regression equation may be expressed as shown below:

$$Y = \alpha + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + e$$

Explanation:

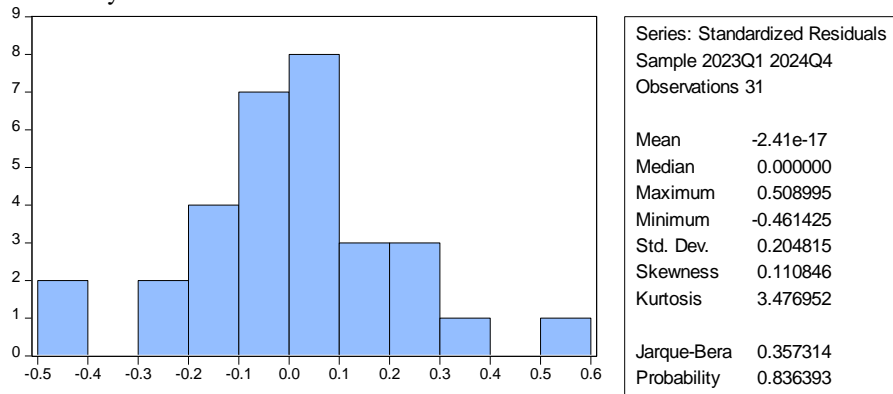
- Y = ROA (Return on Assets)                       $\alpha$  = constant
- X1 = Murabahah variable                          $\beta$  = coefficient of determination
- X2 = Istishna variable                             e = error term
- X3 = Mudharabah variable
- X4 = Musyarakah variable

4. Hypothesis Testing (t-Test)

The degree of association between the independent and dependent variables is determined using regression analysis[4]. In this study, the researcher used a partial test (t-test). To perform a t-test, the computed t-value is contrasted with the significance threshold (P-value) of < 0.05 or the crucial t-value. If the degree of relevance is less than 0.05, the regression model indicates that the independent variable partially influences the dependent variable. If the significance level is > 0.05, then the independent variable does not partially influence the dependent variable[23].

**4. RESULT**

1. Normality Test



(Source: *Eviews Data Analysis, 2025*)

Based on the results of the test of the effects of murabahah, isthisna, mudharabah, and musyarakah on ROA as shown above, it can be seen that the Jarque-Bera value of 0.3573146 is greater than 0.05; therefore, the information is distributed normally, indicating that the data meets the criteria for normalcy.

2. Multicollinearity Test

	LOG_X1	LOG_X2	LOG_X3	LOG_X4
LOG_X1	1,000000	-0,696813	0,902890	0,835581
LOG_X2	-0,696813	1,000000	-0,737204	-0,689786
LOG_X3	0,902890	-0,737204	1,000000	0,928123
LOG_X4	0,835581	-0,689786	0,928123	1,000000

(Source: *Eviews Data Analysis, 2025*)

Based on the results of the multicollinearity test, it is found that there are several relatively high correlation values. The correlation between murabahah financing (LOG\_X1) and mudharabah (LOG\_X3) is 0.902890, and between mudharabah (LOG\_X3) and musyarakah (LOG\_X4) is 0.928123. These correlation values are around the commonly used threshold of 0.95, thus statistically indicating that there is no multicollinearity among the independent variables. However, in panel data regression analysis using the Fixed Effects Model (FEM), correlations among independent variables can still be tolerated as long as they do not cause inconsistent estimates and the results of hypothesis testing can still be interpreted properly. Moreover, not all independent variables show high correlations across the board, so this situation does not lead to serious multicollinearity or perfect multicollinearity. Therefore, the estimation results can still be used with caution in interpretation.

3. Heteroscedasticity Test

Dependent Variable: ABS\_RES  
 Method: Panel Least Squares  
 Date: 25/08/12 Time: 15:11  
 Sampel: 2023Q1–2024Q4  
 Periods Included: 8  
 Cross-sections included: 6  
 Total panel (ubbalanced) observations: 31

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0,560935	7,433236	-0,075463	0,9406
LOG_X1	-0,330516	0,217502	-1,519598	0,1435
LOG_X2	0,184359	0,265027	0,695623	0,4943
LOG_X3	-0,228111	0,348191	-0,655131	0,5195
LOG_X4	0,561369	0,952161	0,589573	0,5618

(Source: *Eviews Data Analysis, 2025*)

Based on the table above, since all X variables have a p-value > 0.05, there is no heteroscedasticity.

4. Autocorrelation Test

Dependent Variable: LOG\_Y  
 Method: Panel Least Squares  
 Date: 12/08/25 Time: 14:12  
 Sample: 2023Q1 2024Q4  
 Periods included: 8  
 Cross-sections included: 6  
 Total panel (unbalanced) observations: 31

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-2,754848	10,79589	-0,255176	0,8011
LOG_X1	-0,056533	0,315896	-0,178961	0,8597
LOG_X2	0,350477	0,384920	0,910520	0,3729
LOG_X3	1,106708	0,505706	2,188443	0,0401
LOG_X4	-0,632783	1,382901	-0,457577	0,6520

(Source: *Eviews Data Analysis, 2025*)

Based on the results of the autocorrelation test above, the Durbin-Watson statistic in the output is 2.034610; k=4; n=31 we obtain

$$dL = 1.1602 \quad 4 - dL = 2.8398$$

$$dU = 1.7352 \quad 4 - dU = 2.2648$$

$$dU < d < 4 - dU$$

$$1.7352 < 2.034610 < 2.2648$$

The test findings indicate that the DW value falls within the range  $dU < d < 4 - dU$ , namely  $1.7352 < 2.034610 < 2.2648$ . Thus, it can be concluded that there is no autocorrelation.

5. Chow Test

*Common Effect Model* (CEM) selected (Prob > 0.05)

*Fixed Effect Model* (FEM) selected (Prob < 0.05)

Redundant Fixed Effects Tests  
Equation: UJICHOW  
Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	7,504469	(5,21)	0,0004
Cross-section Chi-square	31,771473	5	0,0000

(Source: *Eviews Data Analysis, 2025*)

The results show a chi-square probability of  $0.0000 < 0.05$ . Therefore, according to the decision criteria, the *Fixed Effects Model* (FEM) is used in this model. Since the Chow Test selected the *Fixed Effects Model* (FEM), a further test using the Hausman Test is required to determine whether to use the *Fixed Effects Model* (FEM) or the *Random Effects Model* (REM).

6. Hausman Test

*Random Effects Model* (REM) selected (Prob > 0.05)

*Fixed Effects Model* (FEM) selected (Prob < 0.05)

Correlated Random Effects - Hausman Test  
Equation: UJIHAUSMAN  
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	37,478474	4	0,0000

\*\* WARNING: estimated cross-section random effects variance is zero.

(Source: *Eviews Data Analysis, 2025*)

The results show a chi-square probability of  $0.0000 < 0.05$ . Therefore, according to the decision criteria, the *Fixed Effects Model* (FEM) is used in this model. Since the Hausman test selected the *Fixed Effects Model* (FEM), no further testing is required.

7. F-Test

Cross-section fixed (dummy variables)			
R-squared	0,904317	Mean dependent var	-0,409945
Adjusted R-squared	0,863309	S.D. dependent var	0,662129
S.E. of regression	0,244800	Akaike info criterion	0,278950
Sum squared resid	1,258472	Schwarz criterion	0,741526
Log likelihood	5,676282	Hannan-Quinn criter.	0,429738
F-statistic	22,05265	Durbin-Watson stat	2,034610
Prob(F-statistic)	0,000000		

(Source: *Eviews Data Analysis, 2025*)

Based on the F-test table above, the calculated F-value is 22.05265 with a probability (*F-statistic*) of 0.000000, which is less than 0.05. The next step is to compare the calculated F-value with

the F-table value. If the calculated F-value is greater than the critical F-value, it can be concluded that the independent variables simultaneously have a significant effect on the dependent variable.

This study uses a significance level of  $\alpha = 0.05$ , with degrees of freedom  $df1 = k - 1$ , which is  $4 - 1 = 3$  (where  $k$  is the number of independent variables), and  $df2 = n - k$ , which is  $31 - 4 = 27$  (where  $n$  is the number of observations). Based on these criteria, the F-table value is  $\pm 2.96$ . Thus, the calculated F-value of 22.05265 is greater than the F-table value of 2.96 ( $22.05265 > 2.96$ ). Therefore,  $H_0$  is rejected and  $H_1$  is accepted. This indicates that the financing variables murabahah, istishna', mudharabah, and musyarakah collectively (simultaneously) have a significant effect on profitability (ROA).

8. Coefficient of Determination ( $R^2$ ) Test

Cross-section fixed (dummy variables)			
R-squared	0,904317	Mean dependent var	-0,409945
Adjusted R-squared	0,863309	S.D. dependent var	0,662129
S.E. of regression	0,244800	Akaike info criterion	0,278950
Sum squared resid	1,258472	Schwarz criterion	0,741526
Log likelihood	5,676282	Hannan-Quinn criter.	0,429738
F-statistic	22,05265	Durbin-Watson stat	2,034610
Prob(F-statistic)	0,000000		

(Source: *Eviews Data Analysis, 2025*)

Based on the results of the coefficient of determination test above, it is known that the Adjusted R-squared value is 0.904317 or 90.4%, meaning that the variation in ROA can be explained by the combination of the Murabahah, Istishna', Mudharabah, and Musyarakah variables. Meanwhile, the remaining 9.6% is explained by other variables not included in this research model.

9. Multiple Linear Regression

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-2,754848	10,79589	-0,255176	0,8011
LOG_X1	-0,056533	0,315896	-0,178961	0,8597
LOG_X2	0,350477	0,384920	0,910520	0,3729
LOG_X3	1,106708	0,505706	2,188443	0,0401
LOG_X4	-0,632783	1,382901	-0,457577	0,6520

(Source: *Eviews Data Analysis, 2025*)

Regression Equation

$$\text{LOG\_Y} = \text{C}(1) + \text{C}(2)*\text{LOG\_X1} + \text{C}(3)*\text{LOG\_X2} + \text{C}(4)*\text{LOG\_X3} + \text{C}(5)*\text{LOG\_X4} + [\text{CX}=\text{F}]$$

$$\text{LOG\_Y} = -2.75484817343 - 0.0565329363633*\text{LOG\_X1} + 0.350477196477*\text{LOG\_X2} + 1.10670829374*\text{LOG\_X3} - 0.632783179533*\text{LOG\_X4} + [\text{CX}=\text{F}]$$

The panel regression equation above can be interpreted as follows:

1. The constant term of -2.75484817343 means that, in the absence of the murabahah, istishna', mudharabah, and musyarakah variables, the ROA variable is -2.75484817343.
2. The beta coefficient for the murabahah variable X1 is -0.0565329363633; if all other variables remain constant and X1 increases by 1 unit, the ROA variable Y will decrease by 0.0565329363633, and conversely, if all other variables remain constant and the X1 variable decreases by 1 unit, the Y NPF variable will increase by 0.0565329363633.
3. The beta coefficient value for the X2 istishna variable is 0.350477196477, indicating that if all other variables remain constant and istishna financing increases by 1 unit, then ROA Y will increase by 0.350477196477.
4. The beta coefficient value for the X1 mudharabah variable is 1.10670829374, indicating that every 1-unit increase in mudharabah financing, assuming all other variables remain constant, will increase ROA by 1.10670829374.

5. The beta coefficient value of the musyarakah variable X1 is -0.632783179533, indicating that if musyarakah financing increases by 1 unit and other variables remain constant, ROA will decrease by 0.632783179533.

10. t-Test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-2,754848	10,79589	-0,255176	0,8011
LOG_X1	-0,056533	0,315896	-0,178961	0,8597
LOG_X2	0,350477	0,384920	0,910520	0,3729
LOG_X3	1,106708	0,505706	2,188443	0,0401
LOG_X4	-0,632783	1,382901	-0,457577	0,6520

(Source: *Eviews Data Analysis, 2025*)

The following are the results of the t-test:

1. Murabahah

The probability value of  $0.8597 > 0.05$ , so the murabahah variable has no effect on ROA. The coefficient value of -0.056533 indicates a negative relationship between the inflation variable and ROA. Thus, it can be concluded that murabahah has no effect and there is a negative relationship with ROA in Islamic banks.

2. Istisna

The probability value of  $0.3729 > 0.05$ , so the istisna variable does not affect NPF. The coefficient value of 0.350477 indicates a positive relationship between the istisna variable and ROA. Thus, it can be concluded that istisna' has no effect and there is a positive relationship with ROA in Islamic banks. Consequently, H2, which states that istisna' has a positive effect on ROA, is not supported.

3. Mudharabah

The probability value of  $0.0401 < 0.05$  indicates that the mudharabah variable has an effect on ROA. With a coefficient of 1.106708, this indicates a positive relationship between the mudharabah variable and ROA. Therefore, it can be concluded that mudharabah has a positive and significant effect on ROA in Islamic banks. Thus, H3, which states that mudharabah has a positive effect on ROA, is supported.

4. Musyarakah

Since the probability value of 0.6520 is greater than 0.05, the musyarakah variable has no effect on ROA. The coefficient value of -0.632783 indicates a negative relationship between the musyarakah variable and ROA. Therefore, it can be concluded that musyarakah has no effect and exhibits a negative relationship with ROA in Islamic banks. Consequently, H4, which states that musyarakah affects ROA, is not supported.

**DISCUSSION**

1) The Effect of Murabahah Financing on Profitability

Murabahah financing, which dominates the portfolio of Islamic financial institutions, does not show a significant impact on ROA, indicating the limitations of a fixed-margin-based model in increasing profits. The characteristics of a fixed mark-up make returns less sensitive to market fluctuations, thus posing a risk of margin decline, especially when funding costs rise. Furthermore, an increase in financing that is not accompanied by operational efficiency or margin improvement can result in stagnation or even a decrease in profitability levels. High price competition among banks also further compresses profit margins. Therefore, the dominance of murabahah reflects a trade-off between stability and profitability, where preference for low-risk instruments actually hampers the potential for long-term returns.

This finding is in line with previous research which shows that debt-like financing instruments in Islamic banking tend to generate lower profitability levels compared to profit-sharing based financing.[24],[25] ,[26] .

2) The Effect of Istisna Financing on Profitability

Istisna financing, which does not have a significant impact on ROA, indicates the existence of limitations in project-based contracts in generating short-term profits. The stage-completion mechanism creates a timing mismatch between revenues and costs, so the profit contribution for the current period becomes limited, especially at the beginning of the project. In addition, the relatively small proportion of istisna' in the overall financing portfolio indicates a weak scale effect, so its impact is not statistically detected. Associated risks, such as project completion risk and counterparty default risk, also result in cautious behavior from banks, which potentially suppresses the rate of return. Therefore, this insignificance more reflects a combination of structural limitations, utilization level, and risk management practices, rather than the low economic potential of istisna' itself.

This finding is in line with international research indicating that istisna financing generally does not have a significant impact on profitability due to its relatively limited use and the nature of income that is not directly realized in the short term.[7] ,[8],[27]. Furthermore, the literature also emphasizes that the project-based revenue recognition mechanism in the istisna' contract (percentage of completion) causes the contribution to financial performance to be slowe[28].

3) The Effect of Mudharabah Financing on Profitability

Mudharabah financing has a positive and significant effect on ROA, in line with the profit and loss sharing (PLS) framework that allows banks to obtain upside returns from real business performance. The flexible ratio mechanism has the potential to generate higher risk-adjusted returns compared to financing based on fixed margins. Nevertheless, these findings need to be interpreted cautiously. Theoretically, mudharabah is vulnerable to agency problems such as moral hazard and asymmetric information, which can limit the realization of profits. In addition, these positive results may be influenced by selection bias, where financing tends to be allocated to customers with more controlled risk profiles. The limitations of sample size and observation period, as well as indications of multicollinearity, can also affect the stability of the estimates. Therefore, although mudharabah shows potential in increasing profitability, generalizing these findings requires caution and further validation through a more robust methodological approach.

These results are supported by global research indicating that profit-sharing systems have the potential for higher returns because they are based on actual business performance, although accompanied by greater risks.[5],[6],[29][30].

4) The Effect of Musyarakah Financing on Profitability

Musyarakah financing does not have a significant or negative impact on ROA because this can be explained by its characteristics as a joint venture scheme with a high level of capital risk and the presence of a double agency problem. Negative findings in musyarakah financing not only reflect high risk but also indicate potential inefficiencies in managing partnership-based financing. This can be related to issues of information asymmetry, moral hazard, and the complexity of monitoring in a profit-loss sharing scheme. Additionally, the predominance of murabahah financing, which is debt-like, shows that Islamic banks tend to avoid risk, but this strategy has the potential to limit the optimization of long-term profitability.

Thus, there is a trade-off between stability and profitability that needs to be managed strategically. In this contract, the bank and the customer share capital contributions while also being involved in the management of the business, which can potentially lead to conflicts of interest and moral hazard behavior that are difficult to control. This condition can ultimately result in a negative contribution to profitability (ROA).

In addition, previous research shows that partnership-based financing has more complex risks, especially those related to moral hazard and information asymmetry, which can ultimately pressure the bank's financial performance.[5] ,[6],[31].

**5. CONCLUSION**

The results of a panel data regression analysis conducted using the Fixed Effects Model (FEM) for Islamic Commercial Banks during 2023–2024 period, lead to the following conclusions:

1. Murabahah financing does not have a significant effect on profitability (ROA). The negative regression coefficient indicates that murabahah has a negative relationship with ROA; however, this effect is not statistically significant.

2. Istisna financing does not have a significant effect on ROA. Although the regression coefficient is positive, indicating a positive relationship with profitability, the effect of istishna' on ROA is not yet statistically robust.
3. Mudharabah financing has a positive and significant impact on ROA. This indicates that an increase in mudharabah financing can tangibly improve the profitability of Islamic banks, making mudharabah the most dominant variable influencing ROA.
4. Musyarakah financing does not have a significant effect on ROA and exhibits negative relationship. This indicates that an increase in musyarakah financing has not been able to drive an increase in profitability at Islamic banks during the study period.
5. Conversely, murabahah, istishna', mudharabah, and musyarakah financing have a significant impact on return on assets (ROA), which means that a combination of cost-plus financing and profit-sharing financing affects the overall profitability of commercial Islamic banks.
6. With an Adjusted R<sup>2</sup> value of 90.4% indicates that variations in ROA may be accounted by these four finance variables, while the remaining 9.6% is explained by other variables not included in the study model.

These findings indicate that Islamic banks should reconsider their financing structure strategies so that they not only prioritize low-risk agreements, but also optimize profit-sharing schemes that have been proven to contribute more significantly to profitability. From an academic perspective, this research adds knowledge by providing the latest empirical evidence on the comparative effectiveness of Islamic financing models in the post-pandemic period, which until now has still been relatively underexplored.

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