



The Effect of Return on Asset and Return on Equity on *Murabahah* Financing at PT. Bank Muamalat Indonesia Tbk 2013-2022 Period

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Abstract

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This study aims to determine the effect of Return on Assets and Return on Equity on *murabahah* financing at PT. Bank Muamalat Indonesia Tbk for the period 2013-2022. The research method used is a quantitative, descriptive approach with secondary data analysis. Data analysis includes descriptive statistical analysis, classical assumption testing, and hypothesis testing. The results show that the multiple linear regression equation is $Y = 6.475 + 52.736X_1 - 1,991X_2$, indicating that Return on Assets has a positive influence on *murabahah* financing, while Return on Equity has a negative influence. The findings suggest that Return on Assets. and Return on Equity simultaneously do not have a significant effect on *murabahah* financing because the significance value is greater than 0.05. The regression model is able to explain 41.1% of the variation in *murabahah* financing, while the remaining 58.9% is explained by other factors not examined.

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1. Introduction

Islamic banking has grown rapidly as a significant financial sector in the Indonesian economy. Islamic banks are financial institutions that conduct business activities based on sharia principles, adhering to the principles of justice, balance, welfare, and universalism, while avoiding practices involving *gharar* (unlawful activity), *maysir* (risk), *usury* (riba), *zalim* (dealing), and *haram* (forbidden) transactions (Otoritas Jasa Keuangan, 2023) PT. Bank Muamalat Indonesia Tbk, as the first Islamic bank in Indonesia, has played a significant role in providing financial products and services in accordance with Sharia principles. One of the bank's flagship products is *murabahah* financing, a form of purchase and sale transaction with an installment system. According to data from the Financial Services Authority (Otoritas Jasa Keuangan/OJK), *murabahah* financing accounts for approximately 60 percent of total Islamic banking financing products, making it the most widely used financing instrument by Islamic financial institutions (Kementerian Agama Republik Indonesia, 2008)

Murabahah financing is implemented through an installment purchase mechanism with a fixed profit margin added to the bank. The unique feature of *murabahah* financing compared to the interest system in conventional banking is that the profit margin is constant and does not increase over time. However, banks may impose penalties on customers who are late in paying installments. The financial performance of Islamic banks, particularly those related to *murabahah* financing, can be measured through two key profitability ratios: Return on Assets (ROA) and Return on Equity (ROE). ROA is a ratio that shows the return on the total assets

used within the company and measures management effectiveness in managing investments. The higher the ROA, the more productive management is in utilizing assets to generate profits (Akram, 2019). On the other hand, ROE measures a company's ability to generate net income available to shareholders, reflecting the efficiency of the company's operations in generating profits for investors.

Historical data shows that PT. Bank Muamalat Indonesia Tbk's *murabahah* financing experienced significant fluctuations during the 2013-2022 period. From 2013 to 2017, *murabahah* financing showed a relatively stable trend, peaking at Rp 19,342.51 million in 2017. However, the 2018-2022 period showed a consistent decline, with the lowest value in 2022 at Rp 6,384.17 million. This decline was likely due to the unstable economic conditions and challenges faced by the financing sector during the COVID-19 pandemic (Kementerian Agama Republik Indonesia, 2008)

In contrast, the bank's ROA performance showed a more drastic downward trend. In 2013, ROA peaked at 1.37 percent, but then experienced a continuous decline until 2022, falling to just 0.09 percent. A similar pattern also occurred for ROE, which peaked at 32.87 percent in 2013 but dropped drastically to 0.53 percent in 2022. The decline in these two profitability indicators indicates challenges in asset and capital management that require further investigation. Previous research by Akram (2019) shows interesting results regarding the relationship between *murabahah* financing and profitability. In a study conducted at PT. Bank Syariah Mandiri from September 2016 to February 2019, it was found that *murabahah* financing had a positive effect on ROE with a coefficient of 0.317, but this relationship was not statistically significant on ROA.

The differences between the conditions of Bank Muamalat and previous research make this research relevant to be conducted. The research questions asked are: (1) How does ROA affect *murabahah* financing at PT. Bank Muamalat Indonesia Tbk for the 2013-2022 period? (2) How does ROE affect *murabahah* financing at PT. Bank Muamalat Indonesia Tbk for the 2013-2022 period? and (3) How do ROA and ROE simultaneously affect *murabahah* financing at PT. Bank Muamalat Indonesia Tbk for the 2013-2022 period?. The purpose of this study is to determine and analyze the effect of ROA and ROE on *murabahah* financing at PT. Bank Muamalat Indonesia Tbk during the 2013-2022 period, both partially and simultaneously. The findings of this study are expected to provide academic and practical contributions to developing an understanding of the dynamics of Islamic financing and provide input for bank management in optimizing *murabahah* financing strategies.

2. Literature Review

2.1. Return on Assets (ROA)

Return on Assets (ROA) is a ratio used to measure a company's ability to generate profits from investment activities. ROA is an indicator of a business unit's ability to generate returns on its assets. Simorangkir (2004) this ratio is used to measure management's ability to generate overall profits; the higher the ROA, the higher the company's profit level and the better its position in terms of asset utilization. According to Alias et al. (2016) ROA measures the overall effectiveness in generating profits through available assets; the power to generate profits from invested capital. ROA can be formulated as:

$$\text{ROA} = (\text{Net Profit} / \text{Total Assets}) \times 100\%$$

ROA reflects a company's return on all assets (or funding) invested in the company. A higher ROA indicates better company performance, as the return on investment is greater. According to Bank Indonesia circular letter No. 9/24/DPbS in 2007, the ROA assessment criteria for Islamic banks are: (1) Very Healthy: $\text{ROA} > 1.5\%$; (2) Healthy: $1.25\% < \text{ROA} \leq 1.5\%$; (3) Fairly Healthy: $0.5\% < \text{ROA} \leq 1.25\%$; (4) Less Healthy: $0\% < \text{ROA} \leq 0.5\%$; and (5) Unhealthy: $\text{ROA} \leq 0\%$. During the 2013-2022 period, the ROA of PT. Bank Muamalat Indonesia Tbk showed a significant decline, from 1.37% in 2013 to 0.09% in 2022.

2.2. Return on Equity (ROE)

Return on Equity (ROE) is a ratio that measures a company's ability to generate profits available to its shareholders. ROE is also influenced by the size of the company's debt; if the proportion of debt is large, this ratio will be high. Kasmir (2014) ROE is a measure of profitability from the shareholder's perspective, measuring how much profit is due to the shareholders themselves.

The formula for finding Return on Equity (ROE) is:

$$\text{ROE} = (\text{Net Profit} / \text{Equity}) \times 100\%$$

ROE calculations exclude debt from the efficiency calculation, so companies with significant debt are excluded from this indicator. An increase in ROE is typically accompanied by an increase in the company's share price. A higher ROE reflects a company's success in generating profits from its equity, indicating that the company is effectively and efficiently using shareholder capital to generate profits. The ROE assessment criteria according to Islamic banking regulations are: (1) Very Healthy:

ROE > 15%; (2) Healthy: $12.5\% < \text{ROE} \leq 15\%$; (3) Fairly Healthy: $5\% < \text{ROE} \leq 12.5\%$; (4) Less Healthy: $0\% < \text{ROE} \leq 5\%$; and (5) Unhealthy: $\text{ROE} \leq 0\%$. Similar to ROA, the ROE of PT. Bank Muamalat Indonesia Tbk also experienced a significant decline, from 32.87% in 2013 to 0.53% in 2022.

2.3. Murabahah Financing

Financing broadly means financing or spending, namely, funds disbursed to support planned investments, whether undertaken by the individual or by others. In the narrow sense, financing is defined as funding provided by financial institutions, such as Islamic banks, to customers (Hanafi & Halim, 2016). *Murabahah* is etymologically derived from the word *ribhun* (profit). Terminologically, *murabahah* is defined as a sales principle where the selling price consists of the cost of the goods plus an agreed-upon profit (*ribhun*). It is a sale and purchase agreement for specific goods, in which the seller states the purchase price to the buyer and then sells the goods to the buyer with a specified profit requirement.

In Islamic jurisprudence, *murabahah* is a specific form of sale where the seller states the acquisition cost of the goods, including the price and other costs incurred to acquire the goods, and the desired profit margin. *Bai' al-murabahah* is the principle of *bai'* (sale and purchase) where the selling price consists of the cost of the goods plus an agreed profit margin (*ribhun*). In Islamic banking, *murabahah* is applied in the deferred payment sale scheme, namely the purchase of goods by the bank for customers to meet production needs with payment deferred in the short term. In this transaction, the goods are delivered immediately after the contract while

payment is made in installments. The *murabahah* financing mechanism involves the customer, the bank that provides funds, and the goods supplier.

The *murabahah* contract has a clear legal basis in Islam. The Qur'an in Surah An-Nisa', verse 29, states that trade must be conducted on a mutually agreeable basis (taradhin) without coercion or deception (Antonio, 2001). The National Sharia Council-Indonesian Ulema Council fatwa No. 04/DSN-MUI/IV/2000 on *Murabahah* explains that this contract is permitted under Islamic law because it fulfills all the pillars and conditions of sale and purchase (Suwiknyo, 2010).

2.4. Previous Research and Research Hypothesis

Research conducted by Akram (2019) on "The Effect of *Murabahah* Financing on ROA and ROE of PT. Bank Syariah Mandiri for the Period September 2016-February 2019" found that *murabahah* financing has a significant effect on ROA with a t-value of 5.116 and a significance level of 0.000. The regression coefficient of 0.027 indicates that the greater the *murabahah* financing, the greater the company's ROA. However, different results were found for ROE, where *murabahah* financing did not have a significant effect on ROE (Hanafi & Halim, 2016).

Based on the literature review and previous research, the hypothesis of this research is:

H1: ROA has a significant effect on *murabahah* financing at PT. Bank Muamalat Indonesia Tbk for the 2013-2022 period.

H2: ROE has a significant effect on *murabahah* financing at PT. Bank Muamalat Indonesia Tbk for the 2013-2022 period.

H3: ROA and ROE simultaneously have a significant effect on *murabahah* financing at PT. Bank Muamalat Indonesia Tbk for the 2013-2022 period.

3. Method

The type of research used in this study is quantitative descriptive research (Janie, 2012). The approach used is secondary data analysis, utilizing data collected and published by PT. Bank Muamalat Indonesia Tbk through its annual financial reports for the 2013–2022 period. This approach allows the researcher to describe the relationship between financial performance indicators and *murabahah* financing based on empirical data that has been documented by the bank. The study aims to identify the relationship between Return on Assets (ROA), Return on Equity (ROE), and *murabahah* financing through statistical analysis using quantitative methods to ensure objectivity and accuracy in the interpretation of data.

This research was conducted at PT. Bank Muamalat Indonesia Tbk, located at the bank's head office in Jakarta. The study period covered ten years, from 2013 to 2022, with data drawn from the bank's annual financial reports (Antonio, 2001). The data used in this study is secondary data sourced from the financial statements of PT. Bank Muamalat Indonesia Tbk for the 2013–2022 period. Data were collected through documentation, including the bank's annual financial statements, sustainability reports, and other financial data publications (Andri, 2009). The population in this study consists of all financial reports of PT. Bank Muamalat Indonesia Tbk from 2013 to 2022, while the research sample includes the annual

financial reports of the same period, resulting in a total of ten annual observations used as units of analysis (Munawir, 2002).

The operational definition of the variables includes the dependent variable, *murabahab* financing, which is measured from the total *murabahab* financing distributed by the bank in millions of rupiah, as stated in the bank's annual financial report. The independent variable, Return on Assets (ROA), is calculated using the formula $ROA = (\text{Net Profit} / \text{Total Assets}) \times 100\%$, and is expressed as a percentage. Meanwhile, Return on Equity (ROE) is calculated using the formula $ROE = (\text{Net Profit} / \text{Equity}) \times 100\%$, and is also expressed as a percentage. These definitions are used to ensure the consistency and comparability of the research variables throughout the study period.

The data analysis technique used in this study consists of three main stages. The first stage is descriptive statistical analysis, which aims to provide a general overview of the characteristics of the data, including the maximum, minimum, mean, and standard deviation of each research variable (Alhusin, 2003). The second stage is the classical assumption test, which ensures that the regression model used meets the statistical prerequisites for multiple linear regression analysis (Janie, 2012). The tests include normality, multicollinearity, heteroscedasticity, and autocorrelation tests to verify the reliability of the regression model. The final stage is hypothesis testing, conducted to test the significance of the influence of the independent variables on the dependent variable (Granja et al., 2020). The testing involves multiple linear regression, the T-test for partial significance, the F-test for simultaneous significance, and the coefficient of determination (R^2) to measure the

extent to which the independent variables explain the variation in *murabahah* financing.

4. Results

The results of the descriptive statistical analysis show the characteristics of the data from the three research variables:

Table 1. Descriptive Statistics of Variables

Variable	Mean	Minimum	Maximum	Standard Deviation
ROA (%)	0.23%	0.02%	1.37%	0.405%
ROE (%)	4.43%	0.20%	32.87%	10.05%
Murabahah Financing (Rp millions)	10,001	4,290	13,560	3,274

ROA variable: The ROA value has an average of 0.23%, with a minimum value of 0.02% and a maximum value of 1.37%. The standard deviation of 0.405% indicates a fairly high level of variability in ROA during the study period. ROE variable: The average ROE value was 4.43%, with a minimum value of 0.20% and a maximum value of 32.87%. The standard deviation of 10.05% indicates a very high level of variability, primarily due to the very high ROE value in 2013 (32.87%) compared to subsequent years. *Murabahah* Financing Variables: *Murabahah* financing had an average of Rp 10,001 million, with a minimum value of Rp 4,290 million and

a maximum value of Rp 13,560 million. The standard deviation of Rp 3,274 million indicates moderate variability in murabahah financing during the study period.

The results of the normality test using the One-Sample Kolmogorov-Smirnov Test show a Kolmogorov-Smirnov Z value of 0.570 with an Asymp. Sig. (2-tailed) of 0.901, which is greater than $\alpha = 0.05$. As shown in Table 2, these results indicate that the residuals are normally distributed, meeting the normality assumption for regression analysis. The results of the multicollinearity test show that the Tolerance value for both independent variables is 0.006, which is smaller than 0.10. In contrast, the VIF value is 168.689, which is much greater than 10. These results indicate the occurrence of multicollinearity between the independent variables, although this is still acceptable in certain contexts because both variables (ROA and ROE) are conceptually related to the measurement of bank profitability.

The Glejser test results show a significance value for ROA of 0.866 and ROE of 0.803, both greater than $\alpha = 0.05$. These results indicate that the residual variance is constant and there is no heteroscedasticity in the regression model. The Durbin-Watson Test results show a DW value of 1.05. With $n = 10$ and $k = 2$, the Durbin-Watson table values are $dl = 0.697$ and $du = 1.641$. Since $dl < DW < du$, the test results cannot provide a definite conclusion. Therefore, an additional autocorrelation test was conducted using the Run Test, which produced an Asymp. Sig. (2-tailed) value of $0.737 > \alpha = 0.05$, indicating there is no autocorrelation in the regression model :

Table 2. Classical Assumption Test Results

Test	Value	Criteria	Result
Normality (K-S Z)	0.570	> 0.05	✓ Normal
Multicollinearity (VIF)	168.689	< 10	✗ Multicollinearity
Heteroscedasticity (Glejser ROA)	0.866	> 0.05	✓ No Heteroscedasticity
Autocorrelation (DW)	1.05	$0.697 < DW < 1.641$	✓ No Autocorrelation

The results of the multiple linear regression analysis produce the following regression equation:

$$Y = 6.475 + 52.736X_1 - 1.991X_2$$

Where:

Y = Murabahah Financing

X₁ = Return on Assets (ROA)

X₂ = Return on Equity (ROE)

Interpretation of regression coefficients: The constant of 6.475 indicates that if ROA and ROE are zero, *murabahah* financing will be 6.475 (in the same units). The ROA coefficient of 52.736 indicates that every one unit increase in ROA will cause an increase in *murabahah* financing of 52.736 units, assuming other independent variables are constant. The ROE coefficient of -1.991 indicates that every one unit increase in ROE will cause a decrease in *murabahah* financing of 1.991 units, assuming other independent variables are constant.

A partial t-test was conducted to test the significance of the influence of each independent variable on the dependent variable:

Table 3. Regression Coefficients and t-test Results

Variable	t-value	t-table	Significance	Result
ROA	1.731	2.365	0.127	Not Significant
ROE	-1.621	-2.365	0.149	Not Significant

ROA variable: The calculated t-value is $1.731 < t\text{-table of } 2.365$, with a significance value of $0.127 > \alpha = 0.05$. Despite having a positive influence, ROA does not have a significant effect on *murabahab* financing partially. ROE variable: The calculated t-value is $-1.621 > t\text{-table of } -2.365$ (in absolute value: $1.621 < 2.365$), with a significance value of $0.149 > \alpha = 0.05$. ROE has a negative influence and does not have a significant effect on *murabahab* financing partially.

The simultaneous F-test shows a calculated F-value of $2.440 < F\text{-table of } 4.74$, with a significance value of $0.157 > \alpha = 0.05$. As presented in Table 4, these results indicate that ROA and ROE simultaneously have no significant effect on *murabahab* financing at PT. Bank Muamalat Indonesia Tbk for the 2013-2022 period. The R Square (coefficient of determination) value of 0.411 indicates that ROA and ROE can explain 41.1% of the variation in *murabahab* financing. Meanwhile, 58.9% of the variation in *murabahab* financing is explained by other factors not examined in this study, such as macroeconomic conditions, monetary policy, industry competition, and other factors.

Table 4. Simultaneous Test and Model Fit Results

Test	Value	Criteria	Result
F-test	2.440	> 4.74	Not Significant
R ²	0.411	41.1%	Moderate Fit

The results of the study indicate that ROA has a positive effect on *murabahah* financing, with a regression coefficient of 52.736. This means that an increase in ROA will be followed by an increase in *murabahah* financing. This finding is logical because when banks achieve higher levels of profitability on their assets, they typically have greater capacity and confidence to increase financing distribution, including *murabahah* financing. However, despite its positive effect, the effect of ROA on *murabahah* financing is not statistically significant, with a significance value of $0.127 > \alpha = 0.05$. This insignificant effect can be attributed to several factors:

Decline period: During the 2013-2022 study period, PT Bank Muamalat Indonesia Tbk's ROA experienced a consistent decline from 1.37% to 0.09%. This dramatic decline in ROA may not be strong enough to drive significant changes in *murabahah* financing in the short term. **Policy factors:** Banks may adopt conservative financing policies regardless of changes in ROA, prioritizing financing quality over volume. This is particularly relevant given the challenges faced by the banking sector during the COVID-19 pandemic. **Dominant external factors:** Variations in *murabahah* financing may be more influenced by external factors such as macroeconomic conditions, customer demand for credit, and government policies compared to changes in the bank's internal ROA.

The results show that ROE hurts *murabahah* financing, with a regression coefficient of -1.991. This means that an increase in ROE will be followed by a decrease in *murabahah* financing. This finding is surprising because a higher ROE should reflect greater efficiency in utilizing shareholder capital. However, the negative influence of ROE on *murabahah* financing can be explained through several mechanisms:

Profit from other sources: High ROE doesn't always come from *murabahah* financing alone; it can also come from other revenue sources, such as fees, commissions, or investments. When a bank generates higher profits from non-financing sources, it may not need to increase *murabahah* financing to maintain a high ROE. Focus on asset quality: A high ROE may reflect the bank's strategy to focus on asset quality and reduce risk, which may be reflected in a reduction in the volume of riskier *murabahah* financing. Operational efficiency: A high ROE may also reflect increased operational efficiency of the bank, which may not always correlate with increased financing volume.

However, like ROA, the effect of ROE on *murabahah* financing is also statistically insignificant with a significance value of $0.149 > \alpha = 0.05$. This insignificance indicates that variations in ROE during the study period are not strong enough to explain changes in *murabahah* financing statistically. The F-test results show that ROA and ROE simultaneously have no significant effect on *murabahah* financing, with an F-count value of $2.440 < \text{F-table of } 4.74$ and a significance value of $0.157 > \alpha = 0.05$. This insignificance of simultaneous influence indicates that

these two profitability variables, although theoretically relevant, are not strong enough to explain variations in *murabahah* financing during the study period.

The coefficient of determination (R^2) of 0.411 indicates that only 41.1% of the variation in *murabahah* financing can be explained by ROA and ROE, while 58.9% is explained by other factors. This finding indicates that *murabahah* financing at PT. Bank Muamalat Indonesia Tbk is more influenced by external factors than by the bank's internal profitability. Other factors that may influence *murabahah* financing include:

Macroeconomic conditions: GDP growth, inflation, and financial market conditions can influence the demand for financing and bank credit distribution policies. Monetary policy: Interest rates, market liquidity, and Central Bank policies can influence banks' willingness to disburse financing. Industry competition: The competitive strategies of other banks in the Islamic banking industry can influence Bank Muamalat's financing allocation. Regulation and supervision: Authorities' policies related to asset quality, non-performing financing ratios, and capital requirements can influence banks' decisions in disbursing financing. Customer demand: Customer preferences for certain types of financing may change over time, affecting the proportion of *murabahah* financing in the bank's financing portfolio.

6. Conclusion

Based on the results of research on the influence of ROA and ROE on *murabahah* financing at PT. Bank Muamalat Indonesia Tbk for the period 2013-2022, the following conclusions can be drawn: ROA has a positive effect on

murabahah financing, but this effect is not statistically significant. This indicates that while increased profitability on assets is expected to drive increased financing, this relationship is inconsistent or insufficiently strong throughout the study period. ROE has a negative effect on murabahah financing, and this effect is also not statistically significant. This negative effect likely reflects banks' strategies that focus on efficiency and asset quality rather than financing volume expansion.

ROA and ROE did not significantly influence murabahah financing simultaneously. The regression model was only able to explain 41.1% of the variation in murabahah financing, indicating that other factors outside of ROA and ROE had a more dominant influence. The results of this study align with previous research by Akram (2019), which found a complex relationship between murabahah financing and bank profitability indicators. The insignificant effect of ROE on murabahah financing may be due to various risks inherent in murabahah financing, including credit risk from customer delays and defaults.

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