

THE IMPACT OF FINANCING QUALITY, LIQUIDITY AND OPERATIONAL EFFICIENCY ON BPRS PROFITABILITY IN NTB

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Abstract

This study examines the challenges faced by Islamic banking in Indonesia, particularly Sharia People's Financing Banks (BPRS), in maintaining profitability amidst rising financing risks and operational cost pressures. The research aims to analyze the impact of Non-Performing Financing (NPF), Financing to Deposit Ratio (FDR), and Operating Expenses to Operating Income Ratio (BOPO) on profitability, measured by Return on Assets (ROA), at three BPRS in West Nusa Tenggara from Q1 2020 to Q3 2025. A panel data regression approach with a Fixed Effect model and bootstrap standard error estimation was employed. The results show that NPF and BOPO have a significant negative effect on ROA, while FDR has an insignificant impact. The study contributes new insights into the relationship between financing quality, operational efficiency, and profitability, offering practical recommendations for risk management and cost efficiency in Islamic microfinance institutions.

Keywords: NPF, FDR, BOPO, ROA

Abstrak

Penelitian ini mengkaji tantangan yang dihadapi oleh perbankan syariah di Indonesia, khususnya Bank Pembiayaan Rakyat Syariah (BPRS), dalam menjaga profitabilitas di tengah risiko pembiayaan yang meningkat dan tekanan biaya operasional. Tujuan penelitian ini adalah untuk menganalisis pengaruh Non-Performing Financing (NPF), Financing to Deposit Ratio (FDR), dan Biaya Operasional terhadap Pendapatan Operasional (BOPO) terhadap profitabilitas yang diukur dengan Return on Assets (ROA) pada tiga BPRS di Nusa Tenggara Barat selama periode 2020Q1 hingga 2025Q3. Pendekatan yang digunakan adalah regresi data panel dengan model Fixed Effect dan estimasi kesalahan standar bootstrap. Hasil penelitian menunjukkan bahwa NPF dan BOPO berpengaruh negatif signifikan terhadap ROA, sementara FDR tidak berpengaruh signifikan. Penelitian ini memberikan kontribusi baru dalam memahami hubungan antara kualitas

pembiayaan, efisiensi operasional, dan profitabilitas, serta memberikan rekomendasi praktis untuk pengelolaan risiko dan efisiensi biaya pada lembaga keuangan mikro syariah.

Kata Kunci: *NPF, FDR, BOPO, ROA*

INTRODUCTION

Islamic banking in Indonesia, especially Sharia People's Financing Banks (BPRS), faces significant challenges in maintaining its profitability amid rising financing risks and pressure on operational costs. Although BPRS plays a strategic role in supporting the micro, small, and medium enterprises (MSMEs) and household sectors, research that explores the factors that affect BPRS profitability at the regional level is still relatively limited. Most previous studies have tended to focus on large Islamic banks or macroeconomic factors, while the internal dynamics that occur in BPRS at the regional level, which have specific characteristics and challenges, have not been explored in depth (Astuti, 2023; Mulyani et al., 2020).

This study examines three Sharia People's Financing Banks (BPRS) located in West Nusa Tenggara, namely BPRS Tulen Amanah, BPRS PNM Compliant with Amal Amali, and BPRS Dinar Ashri. The main objective of this study is to analyze the influence of the variables Non-Performing Financing (NPF), Financing to Deposit Ratio (FDR), and Operating Costs to Operating Income (BOPO) on profitability as measured by the Return on Assets (ROA) indicator. Through this approach, the research aims to provide a deeper understanding of the factors that affect the financial performance of BPRS at the local level, particularly in the context of financing risk management, liquidity, and operational efficiency that are directly related to the sustainability of the profitability of these institutions in the region (Astuti, 2023; Fitriana et al., 2024a).

Although a number of studies have discussed various factors that affect the profitability of Islamic banks, studies that specifically examine the influence of these variables on Sharia People's Financing Banks (BPRS) with a panel data approach and a Fixed Effect model at the regional level are still very limited (Lestari, 2025; Natasya, 2025). Therefore, this study aims to fill this gap by providing a deeper insight into the dynamics of BPRS' profitability in West Nusa Tenggara. This research is expected to make a significant contribution to financing risk management, cost efficiency, and

operational policies in Islamic microfinance institutions, which in turn will support the sustainability and performance of BPRS in the region.

The main contribution of this study is to provide new insights into the relationship between financing quality, operational efficiency, and profitability in Sharia People's Financing Banks (BPRS), as well as to offer practical recommendations for managers and policymakers in improving the performance of BPRS at the local level. By using quarterly secondary data and a more in-depth analytical approach, this research is expected to make a significant contribution to the development of financing risk management policies and cost efficiency at BPRS. In addition, the results of this study are also expected to be a relevant reference to strengthen the position of BPRS in the Islamic banking industry in general, as well as support efforts to improve the performance of the Islamic microfinance sector in Indonesia.

RESEARCH METHODS

This study uses an explanatory quantitative approach with panel data regression to analyze the influence of NPF, FDR and BOPO on ROA. The design of the activities was carried out in order: *First*, Compiling the data from the Panel, *Second*, checking the structure and completeness of the data, *Third*, perform descriptive statistics and preliminary tests, *Fourth*, choose the best panel model, *Fifth*, conduct diagnostic tests and *Sixth* Estimating the final model with a more reliable error standard according to the results of the assumption test (Hsiao, 2007). The scope of this research is on three BPRS in West Nusa Tenggara, BPRS Tulen Amanah, BPRS PNM Obey Beramal Amali and BPRS Dinar Ashri with an observation period of 2020Q1–2025Q3. The research data is in the form of secondary data with financial ratios that include ROA, NPF, FDR and BOPO. The software tools used by stata and spreadsheets for data structuring. Technical analysis using panel regression (Cameron et al., 2008; Cameron & Miller, 2015; Drukker, 2003).

The data collection technique is carried out through documentation, namely collecting quarterly financial ratio data from publications/reports available for each BPRS during the research period. The operational definition of a variable is defined as ROA, the dependent variable is the profitability ratio that indicates the ability of the asset to

generate profit, NPF is the ratio of non performing financing to total financing (an indicator of financing quality/risk), FDR is the ratio of financing to third-party funds (liquidity and intermediation indicator) and BOPO is the ratio of operating costs to operating income (an efficiency indicator) (Athanasoglou et al., 2008). All variables are measured in the form of ratios/percentages per quarter.

The estimated empirical models are as follows:

$$ROA_{it} = \alpha + \beta_1 NPF_{it} + \beta_2 FDR_{it} + \beta_3 BOPO_{it} + \mu_i + \varepsilon_{it}$$

Description:

ROA_{it} : Return on Assets

α : constant (intersep).

β_1 : the coefficient of influence on $.NPF ROA$

NPF_{it} : Non Performing Financing

β_2 : the coefficient of influence on $.FDR ROA$

FDR_{it} : Financing to Deposit Ratio

β_3 : the coefficient of influence on $.BOPO ROA$

$BOPO_{it}$: ratio of Operating Expenses to Operating Income

μ_i : Bank specific individual securities (*fixed effect*)

ε_{it} : error term

Indeks : unit cross-section (bank) $.i(i = 1,2,3)$

Index : time dimension (quarterly). $t(t = 2020Q1, \dots, 2025Q3)$

With the following models and hypotheses:

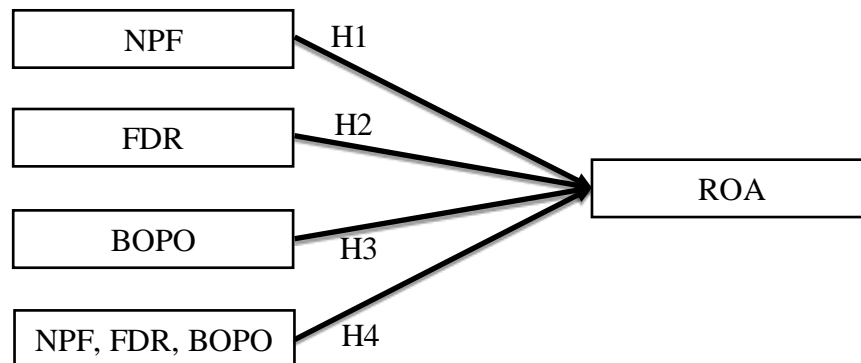


Figure 1. Conceptual Framework Model

Hipotesis:

H1: NPF has a negative effect on ROA in BPRS.

H2: FDR has a positive effect on ROA in BPRS.

H3: BOPO has a negative effect on ROA in BPRS.

H4: NPF, FDR, and BOPO simultaneously have a significant effect on ROA in BPRS.

RESULTS AND DISCUSSION

To perform the regression of the panel data in Stata, the selection of between *Common Effect Model* (CEM) *Fixed Effect Model* (FEM) is based on the significance of individual effects. The first test indicator Chow test is carried out before establishing the exact model between the types *Common Effect Model* (CEM) or type *Fixed Effect Model* (FEM) (LLC, 2021b). The standard test read is F test that all $u_i = 0$ on the output *Common Effect Model*. The zero hypothesis states that there are no individual effects (the whole $u_i = 0$) so CEM is adequate. The decision was taken by comparing the probability values: if the $Prob > F < 0.05$, then the null hypothesis is rejected and the FEM is more precise, if the $Prob > F \geq 0.05$, then the null hypothesis fails to be rejected and the CEM is judged sufficient.

Table 1. Chow Test Model Results

| Test | Statistics | df | Prob. |
|---------------------------|------------|--------|--------|
| F test that all $u_i = 0$ | 14,86 | (2,41) | 0,0000 |

Source: Data processed, 2025

Based on table 1, the test results show $F(2.41) = 14.86$ with a $Prob > F = 0.0000$. A probability value smaller than 0.05 indicates the rejection of the null hypothesis, so the individual effect of the difference in specific characteristics between banks is proven to be significant. Thus, a more appropriate model to use is FEM and further analysis is feasible to proceed at the FEM or REM selection stage through the Hausman test.

The Hausman test on Stata is the standard for choosing between FEM and REM by testing the consistency of the estimator (LLC, 2023). The zero hypothesis states that the coefficient difference between FEM and REM is not systematic so that REM is consistent and efficient, while the alternative hypothesis states that REM is inconsistent because individual effects correlate with explanatory variables, so FEM is more precise.

The decision is taken from the probability value of the test, if the $\text{Prob} > \chi^2 < 0.05$, then the null hypothesis is rejected and the FEM is selected, if the $\text{Prob} > \chi^2 \geq 0.05$, then the null hypothesis fails to be rejected and REM can be used.

Table 2. Hausman Test Results

| Test Summary | Chi-Sq.Statistic | Chi-Sq. d.f. | Prob. |
|-------------------------|------------------|--------------|--------|
| Hausman test (FE vs RE) | $\chi^2 = 18.07$ | 2 | 0,0001 |

Source: Data processed, 2025

Based on Table 2, the Hausman test value shows $\chi^2 = 18.07$ with $df = 2$ and $\text{Prob.} = 0.0001 (< 0.05)$. These results indicate that the null hypothesis is rejected, so the difference in coefficients between the FEM and REM models is systematic. Thus, *the Fixed Effect Model* (FEM) is considered more appropriate to be used because the individual effects of the specific characteristics of the bank have the potential to correlate with the explanatory variables, so that REM is inconsistent for the data of this study.

The next standard is multicollinearity testing where Stata generally refers to *Variance Inflation Factor* (VIF) as a measure of how strong an independent variable is described by another independent variable (LLC, 2021a; O'Brien, 2007). Interpretations following the general threshold of the VIF value < 10 often also use a tighter limit < 5 indicates no interfering multicollinearity, while $VIF \geq 10$ indicates strong multicollinearity that can magnify standard errors and weaken the significance of the coefficient. As a preliminary check, correlation between independent variables can also be used, absolute correlations close to 0.80–0.90 are usually considered high multicollinearity signals.

Table 3. Multicollinearity Test Results

| Variabel | NPF | FDR | BOPO |
|----------|---------|---------|---------|
| NPF | 1,0000 | -0,4448 | 0,4838 |
| FDR | -0,4448 | 1,0000 | -0,2615 |
| BOPO | 0,4838 | -0,2615 | 1,0000 |

Source: Data processed, 2025

Based on Table 3, the correlation between independent variables is at a moderate level and does not approach the high threshold of 0.80–0.90. The NPF–FDR correlation =

-0.4448 , $NPF-BOPO = 0.4838$, and $FDR-BOPO = -0.2615$ indicates the absence of too strong linear relationships between the explanatory variables. Therefore, the model can be stated to be not subject to annoying multicollinearity, so that the coefficient estimation and significance testing are relatively more stable to interpret.

In the *Fixed Effect Model* (FEM) panel model, the heteroscedasticity diagnostic standard in Stata is *the Modified Wald Test For Groupwise Heteroskedasticity*. The zero hypothesis expresses a constant variance of error between units (homoskedastis). If the p-value < 0.05 , then the null hypothesis is rejected and it is concluded that there is heteroscedasticity of different error variance between banks.

Table 4. Heteroscedasticity Test Results

| Test | Test Statistics | df | Prob. |
|---|------------------|----|--------|
| Modified Wald test (<i>Groupwise Heteroskedasticity</i>) | $\chi^2 = 10.37$ | 3 | 0,0157 |

Source: Data processed, 2025

Based on Table 4, the results of *the Modified Wald test* show $\chi^2 = 10.37$ with $df = 3$ and Prob. = 0.0157 (< 0.05). This means that the null hypothesis (constant residual variance between units) is rejected, so that there is *groupwise heteroscedasticity* in the *Fixed Effect Model* (FEM). The implication is that the use of conventional standard errors has the potential to produce invalid inferences, so that a more robust standard error adjustment is needed at the final estimation stage.

In panel data regression, the most common autocorrelation test standard in Stata testing is *the Wooldridge test for autocorrelation* in panel data. The null hypothesis states that there is no first order autocorrelation in residuals. The decision criterion if the p-value < 0.05 , then the null hypothesis is rejected so that there is an autocorrelation if the p-value ≥ 0.05 , then there is no evidence of autocorrelation. The autocorrelation detected means that the error of the current period correlates with the previous period, so the conventional error standard is potentially biased.

Table 5. Autocorrelation Test Results

| Test | Test Statistics | df | Prob. |
|--|-----------------|--------|--------|
| Wooldridge test (autocorrelation panel) | F = 32,753 | (1, 2) | 0,0292 |

Source: Data processed, 2025

Based on Table 5, the results of the Wooldridge test show F = 32.753 with df(1.2) and Prob. = 0.0292 (< 0.05). Thus, the null hypothesis is rejected and it can be concluded that there is a first-order autocorrelation in the residual data panel. This condition indicates that there is an error correlation between times that can cause standard errors to become biased if not addressed, so it is necessary to use an inference procedure that is more resistant to the violation of these assumptions.

If heteroscedasticity and autocorrelation are detected, the standard practice in Stata is to use a more robust estimator or standard error so that the coefficient inference remains valid. In this study, due to assumption violations occurring and small panel size, final estimates were made on FEM models with *bootstrap standard errors*. Bootstrap estimates standard errors based on repeated resampling so that it is more stable against abnormalities, heteroscedasticity and autocorrelation, so that the decision of coefficient significance becomes more reliable than standard errors.

Table 6. Estimated Results of Panel Data Regression (FEM) with Bootstrap Standard Errors

| Variabel | Coeficin | Bootstrap Std. Error | z-stat | p-value | 95% CI (Lower) | 95% CI (Upper) |
|-----------|----------|----------------------|--------|---------|----------------|----------------|
| NPF | -0,15499 | 0,04868 | -3,18 | 0,001 | -0,25039 | -0,05958 |
| FDR | 0,00482 | 0,00810 | 0,60 | 0,551 | -0,01105 | 0,02070 |
| BOPO | -0,10282 | 0,03391 | -3,03 | 0,002 | -0,16929 | -0,03635 |
| Konstanta | 12,71464 | 2,51335 | 5,06 | 0,000 | 7,78856 | 17,64072 |

Source: Data processed, 2025

Based on Table 6, the final estimate using FEM with *bootstrap standard errors* showed that NPF had a negative and significant effect on ROA ($\beta = -0.15499$, $p = 0.001$), FDR had a positive but insignificant effect ($\beta = 0.00482$, $p = 0.551$), and BOPO had a

negative and significant effect ($\beta = -0.1028, p = 0.002$). These findings confirm that the profitability (ROA) of the three BPRS is more sensitive to financing quality and operational efficiency than the variation in liquidity (FDR) in the observation period, after taking into account time control and standard error correction via bootstrap.

The feasibility of the model simultaneously in the panel estimation as well as when using bootstrap is seen from the shared test statistics, generally in the form of *Wald chi-square* and its p-value. The zero hypothesis states that all the coefficients of the major independent variables together are equal to zero. With the criterion that if the p-value < 0.05 , then the null hypothesis is rejected so that the model is declared feasible and the independent variable simultaneously affects the dependent variable, on the other hand, if the p-value ≥ 0.05 , the model is considered insignificant together.

Table 7. Results of the Simultaneous Model Feasibility Test

| Test | F | df | p-value |
|------------------------------|-------|--------|---------|
| Simultan (NPF, FDR, BOPO) | 26,87 | (3,41) | 0,0000 |

Source: Data processed, 2025

Based on Table 7, the simultaneous test yielded $F = 26.87$ with $df (3.41)$ and $p\text{-value} = 0.0000 (< 0.05)$. This means that the null hypothesis that states the coefficients of NPF, FDR and BOPO together equal to zero is rejected. Thus, the model is declared fit because the main independent variables simultaneously have a significant effect in explaining the variation in ROA in the model used.

The partial test was carried out by assessing the significance of each independent variable coefficient through the probability value (p-value) on the estimated output. The zero hypothesis states that the coefficient of a given variable is equal to zero. If the p-value < 0.05 , the coefficient is considered significant so that the research hypothesis for that variable is supported. The interpretation of the direction of influence is based on the coefficient sign, the negative coefficient indicates the opposite relationship while the positive coefficient indicates the codirectional relationship with the assumption of another constant variable. The coefficient quantity expresses the change in ROA due to the increase of one unit of explanatory variable in the same unit and period.

Table 8. Partial Test Results

| Variabel | Coefficin (β) | Std. Error | t-stat | p-value |
|----------|-----------------------|------------|--------|---------|
| NPF | -0,15499 | 0,03099 | -5,00 | 0,000 |
| FDR | 0,00482 | 0,00580 | 0,83 | 0,411 |
| BOPO | -0,10282 | 0,01770 | -5,81 | 0,000 |

Source: Data processed, 2025

Based on Table 8, partial testing showed that NPF had a significant negative effect on ROA ($t = -5.00$, $p = 0.000$), while FDR was insignificant ($t = 0.83$, $p = 0.411$). In addition, BOPO had a significant negative effect on ROA ($t = -5.81$, $p = 0.000$). Economically, these results indicate that increased non performing financing and high operating expenses relative to operating income tend to depress the bank's ability to generate profits, while the FDR variation in this sample is not statistically strong enough to explain the change in ROA.

In the *Fixed Effect Model* (FEM) panel model, the relevant coefficient of determination for interpretation is usually Within R-squared because it describes the proportion of ROA variation within each bank over time that can be explained by independent variables in the model. In addition to Within R-squared, it displays Between and Overall R-squared. For the *Fixed Effect Model* (FEM), the main focus is on Within because the identification of the *Fixed Effect Model* (FEM) effect is sourced from intra unit variations. The greater the value of Within R-squared, the greater the model's ability to explain the dynamics of the ROA within each bank during the observation period.

Table 9. Determination Coefficient Results

| R-squared | Value |
|-------------------|--------|
| Within R-squared | 0,8157 |
| Between R-squared | 0,5604 |
| Overall R-squared | 0,5957 |

Source: Data processed, 2025

Based on Table 9, the value Within R-squared = 0.8157 shows that about 81.57% of the variation in ROA within each bank over time can be explained by the variables

NPF, FDR, BOPO. Meanwhile, Between R-squared = 0.5604 and Overall R-squared = 0.5957 provide an overview of the model's ability to explain interbank variation and total variation. Overall, the high within values confirm that the model has a strong elucidation of ROA dynamics at the bank level during the observation period.

The Effect of *Non Performing Financing (NPF)* on *Return on Assets (ROA)*.

The results of the partial test showed that NPF had a significant negative influence on ROA ($t = -5.00$, $p = 0.000$). This indicates that an increase in NPF leads to a decrease in ROA, which confirms that the quality of financing greatly affects the bank's ability to generate profits. The increase in NPF reflects the increasing risk of non-current financing, resulting in higher reserve costs and smaller profit margins. These findings are in line with financing risk management theory in Islamic banking, which emphasizes the importance of controlling financing quality to maintain bank profitability (Abedifar et al., 2013; Susanto et al., 2020)

These findings are in line with Harjanti & Farhan (2021), Kholis & Kurniawati (2018), Riduwan (2021), Susiana & Basuki (2017), Syaputra & Rialdy (2023) The results of the study show consistently that *Non Performing Financing (NPF)* has a negative and significant effect on *Return on Assets (ROA)* in Islamic financial institutions, both BPRS and Islamic banks in general. In substance, their findings confirm that an increase in non performing financing will decrease banks' ability to generate profits from their assets as it encourages increased reserve costs (CKPN) of collection and recovery costs and the loss of effective profit-sharing margin revenue. Thus, *Non Performing Financing (NPF)* is positioned as a key indicator of financing risk that most directly suppresses profitability, so strengthening the quality of financing and risk management is the main prerequisite for maintaining ROA stable and sustainable.

The Effect of *Financing to Deposit Ratio (FDR)* on *Return on Assets (ROA)*.

Partial tests for FDR showed that FDR had no significant effect on ROA ($t = 0.83$, $p = 0.411$). This suggests that although the intermediation rate (FDR) increases, it does not automatically contribute to increased profitability. An increase in FDR that is not

accompanied by good financing quality and cost efficiency is not enough to increase ROA. In the context of BPRS NTB, FDR's influence on ROA is conditional, which means that FDR's role in increasing profitability will only be seen if NPF can be properly controlled and BOPO is managed efficiently (Fitriana et al., 2024a; Riduwan, 2021b).

Audina & Rialdy (2024), Fitriana et al., (2024), Ichsan & Reswanty (2021), Riduwan (2021) This study found that *Financing to Deposit Ratio* (FDR) had no significant effect on *Return on Assets* (ROA), although in some directional studies the coefficient is positive. These findings show that the high disbursement of financing compared to third-party funds does not automatically increase profitability, as ROA is more determined by the quality of risk financing/NPF, cost structure and operational efficiency (BOPO), and the ability of banks to manage liquidity mismatches. It can be said that FDR is more reflective of the intensity of intermediation, but its impact on profit becomes conditional and will only encourage ROA if the financing disbursed is of good quality and operational costs are controlled.

The Effect of Operating Costs of Operating Income (BOPO) on *Return on Assets* (ROA).

The results of the partial test showed that BOPO had a negative and significant effect on ROA ($t = -5.81$, $p = 0.000$). This shows that operational efficiency has a very important role in determining the profitability of BPRS. The larger the ratio of operating costs to operating income, the less room for profitability generated by the bank. These findings are in line with the theory of cost efficiency in banking, which considers that operational cost control is an important factor in increasing bank profitability (Berger & Humphrey, 1997). In the context of BPRS, these results highlight the importance of efficient cost management to maintain profitability performance in smaller banks.

Astuti (2022), Ichsan & Reswanty (2021), Maryama et al., (2023), Rafidah (2023) and Yuliana & Listari (2021) This study is consistent that BOPO has a negative and significant effect on ROA, so that operational efficiency is a key factor in explaining the profitability of Islamic banks and BPRS. In essence, when operating costs increase faster than operating income, profit margins narrow and the asset's profitability decreases, so ROA is depressed. These findings confirm that profitability is not only determined by

financing expansion, but is strongly influenced by banks' ability to control operating expenses, improve productivity and improve business process efficiency so that operating income can generate more optimal profits.

The Simultaneous Effect of NPF, FDR, and BOPO on Return on Assets (ROA).

Simultaneous feasibility tests showed that NPF, FDR, and BOPO together had a significant influence on ROA with $F = 26.87$ and $p\text{-value} = 0.0000 (< 0.05)$. This shows that these variables together can explain the variation in ROA in BPRS in NTB. However, further analysis showed that the influence of NPF and BOPO was more dominant than that of FDR, indicating that the quality of financing and operational efficiency had more influence on profitability compared to the level of intermediation. In this context, the theory of risk efficiency dominance can be applied, which suggests that the bank's profitability is more influenced by the management of financing risk and operational costs than by the increase in the amount of financing disbursed (Dietrich & Wanzenried, 2011).

Astuti (2022), Fitriana et al., (2024), Ichsan & Reswanty (2021), Susiana & Basuki (2017) and Syaputra & Rialdy (2023). The study generally found that NPF, FDR and BOPO simultaneously have a significant effect on ROA, so the combination of financing quality, liquidity/intermediation and operational efficiency indicators is a relevant framework to explain the profitability of Islamic banks and BPRS. These significant results together show that ROA is not formed by a single factor, but by the linkage between banks' ability to maintain healthy financing (controlled NPF), manage intermediation and liquidity functions (proportional FDR), and reduce cost inefficiencies (low BOPO). Thus, the study's fifth collective findings confirm that increased profitability is more effectively achieved through integrated improvements in financing risk management and cost control, supported by disciplined liquidity management to keep intermediation performance productive without increasing risk.

CONCLUSION

This study makes a new contribution by using quarterly data from three BPRS in West Nusa Tenggara, providing a deeper understanding of the dynamics of BPRS

performance at the regional level, which has not been extensively researched before. These findings confirm that BPRS' profitability is more influenced by financing quality (NPF) and operational efficiency (BOPO) than financing volume (FDR). The practical implication of these findings is that BPRS in West Nusa Tenggara should prioritize improving financing quality and cost efficiency to ensure sustainability of profitability and long-term performance.

In addition, the results of this study provide significant policy implications, namely the importance of strengthening the regulatory framework that supports risk management practices and efficiency in BPRS operations. Policies that focus on financing risk management and cost control will help increase the competitiveness and resilience of the Islamic microfinance sector in Indonesia. This policy is very important to maintain sustainability and increase the contribution of BPRS to the local economy, especially in supporting MSMEs and communities in the West Nusa Tenggara region.

This study has limitations related to the limited use of quarterly data as well as the period passed by BPRS in West Nusa Tenggara which is influenced by global and regional economic fluctuations. External factors such as economic crises or unstable macroeconomic conditions may affect the results of this study. Therefore, further research needs to consider these contextual factors more deeply, as well as use more comprehensive data and longer periods to obtain more representative results.

REFERENCES

- Abedifar, P., Molyneux, P., & Tarazi, A. (2013). Risk in Islamic banking. *Review of Finance*, 17(6), 2035–2096. <https://doi.org/10.1093/rof/rfs041>
- Astuti, R. P. (2022). Pengaruh CAR , FDR , NPF , Dan BOPO Terhadap Profitabilitas Perbankan Syariah. *Jurnal Ilmiah Ekonomi Islam*, 8(03), 3213–3223.
- Astuti, R. P. (2023). Pengaruh CAR, FDR, NPF, dan BOPO terhadap profitabilitas perbankan syariah. *Jurnal Ilmiah Ekonomi Islam*, 8(3). <https://doi.org/10.29040/jiei.v8i3.6100>
- Athanasoglou, P. P., Brissimis, S. N., & Delis, M. D. (2008). Bank-specific, industry-specific and macroeconomic determinants of bank profitability. *Journal of International Financial Markets, Institutions and Money*, 18(2), 121–136. <https://doi.org/10.1016/j.intfin.2006.07.001>

- Audina, U., & Rialdy, N. (2024). Pengaruh BOPO , NPF , FDR Terhadap ROA Unit Usaha Syariah Di Indonesia 2021-2023. *Jurnal Ilmiah Ekonomi Bisnis Dan Akuntansi*, 1(2), 103–111.
- Berger, A. N., & Humphrey, D. B. (1997). Efficiency of financial institutions: International survey and directions for future research. *European Journal of Operational Research*, 98(2), 175–212. [https://doi.org/10.1016/S0377-2217\(96\)00342-6](https://doi.org/10.1016/S0377-2217(96)00342-6)
- Cameron, A. C., Gelbach, J. B., & Miller, D. L. (2008). Bootstrap-based improvements for inference with clustered errors. *The Review of Economics and Statistics*, 90(3), 414–427. <https://doi.org/10.1162/rest.90.3.414>
- Cameron, A. C., & Miller, D. L. (2015). A Practitioner's Guide to Cluster-Robust Inference. *Journal of Human Resources*, 50(2), 317–372. <https://doi.org/10.3368/jhr.50.2.317>
- Dietrich, A., & Wanzenried, G. (2011). Determinants of bank profitability before and during the crisis: Evidence from Switzerland. *Journal of International Financial Markets, Institutions and Money*. <https://doi.org/10.1016/j.intfin.2011.09.006>
- Drukker, D. M. (2003). Testing for serial correlation in linear panel-data models. *The Stata Journal*, 3(2), 168–177. <https://www.stata-journal.com/article.html?article=st0039>
- Fitriana, D., K, K. C. Y., & Sopingi, I. (2024a). Pengaruh Dana Pihak Ketiga dan Financing to Deposit Ratio terhadap Profitability Bank Syariah. *Jurnal Ekonomi, Manajemen Dan Perbankan*, 10(01), 31–38.
- Fitriana, D., K, K. C. Y., & Sopingi, I. (2024b). Pengaruh Dana Pihak Ketiga dan Financing to Deposit Ratio terhadap Profitability Bank Syariah. *Jurnal Ekonomi, Manajemen Dan Perbankan*, 10(01), 31–38.
- Harjanti, W., & Farhan, A. (2021). The Effect of FDR , NPF and Liquidity Ratio on Profitability of Islamic Banks in Indonesia. *Budapest International Research and Critics Institute-Journal (BIRCI-Journal)*, 4(4), 13600–13608.
- Hsiao, C. (2007). Panel data analysis—advantages and challenges. *TEST*, 16(1), 1–22. <https://doi.org/10.1007/s11749-007-0046-x>
- Ichsan, N., & Reswanti, R. R. A. (2021). Pengaruh Fdr, Npf, Car, Dan Bopo Terhadap Roa Pada Bank Pembiayaan Rakyat Syariah (Bprs). *Jurnal Ekonomi Rabbani*, 1(2), 145–157.
- Kholis, N., & Kurniawati, L. (2018). Pengaruh pembiayaan bagi hasil, Non Performing Financing (NPF) dan Biaya Operasional Pendapatan Operasional (BOPO) terhadap Return On Assets (ROA) pada bank umum syariah. *Jurnal Ekonomi & Keuangan Islam*, 4(2), 75–80. <https://doi.org/10.20885/JEKI.vol4.iss2.art3>
- Lestari, E. P. (2025). The effect of NPF, FDR, and BOPO on profitability (ROA) of Bank NTB Syariah. *ADILLA: Journal of Sharia Economics*, 8(2), 49–50.

- LLC, S. (2021a). *Stata 17 Base Reference Manual: vif—Variance inflation factors*. StataCorp LLC.
- LLC, S. (2021b). *Stata 17 Base Reference Manual: xtreg—Fixed-, between-, and random-effects, and population-averaged linear models*. Stata Press.
- LLC, S. (2023). *hausman — Hausman specification test*. StataCorp LLC. <https://www.stata.com/manuals/rhausman.pdf>
- Maryama, S., Kusumawati, B., Utami, S. S., Ermalina, & Artha, T. (2023). Macroeconomic Factors Affecting Financial Performance in Islamic Banks and Conventional Banks : A Comparative Analysis. *Budapest International Research and Critics Institute-Journal (BIRCI-Journal)*, 6(3), 1520–1533.
- Mulyani, L. T., Wibowo, S., & Putra, M. A. (2020). Determinants of profitability in Sharia Microfinance: Evidence from BPRS in Indonesia. *Jurnal Ekonomi Dan Keuangan Syariah*, 7(2), 102–117. <https://doi.org/https://doi.org/10.33096/jeks.v7i2.1112>
- Natasya, P. A. (2025). Analysis of the effect of FDR, BOPO, ROA and inflation on Islamic Rural Banks (BPRS) during 2020–2023. *Jurnal JAIEF*.
- O'Brien, R. M. (2007). A caution regarding rules of thumb for variance inflation factors. *Quality & Quantity*, 41(5), 673–690. <https://doi.org/10.1007/s11135-006-9018-6>
- Rafidah. (2023). Indonesian Islamic Bank Return on Assets Analysis: Moderating Effect of Musyarakah Financing. *Al-Uqud: Journal of Islamic Economics*, 7(2), 200–216.
- Riduwan. (2021a). Pengaruh Financing To Deposit Ratio (FDR), Non Performing Financing (Npf) Dan Capital Adequacy Ratio (CAR) Terhadap Profitabilitas (Roa) Perbankan Syariah Di Indonesia. *Jurnal Masharaf Al-Syariah: Jurnal Ekonomi Dan Perbankan Syariah*, 6(2), 518–534.
- Riduwan. (2021b). Pengaruh Financing to Deposit Ratio (FDR), Non Performing Financing (NPF) dan Capital Adequacy Ratio (CAR) terhadap Profitabilitas (ROA) Perbankan Syariah di Indonesia. *Jurnal Masharaf Al-Syariah: Jurnal Ekonomi Dan Perbankan Syariah*, 6(2), 518–534.
- Susanto, A. A., Octavio, D. C. D., & Wardani, Y. (2020). Credit Risk and Profitability in Islamic Banking: Evidence from Indonesia. *Economica: Jurnal Ekonomi Islam*, 11(2). <https://doi.org/10.21580/economica.2020.11.2.5027>
- Susiana, P. M., & Basuki, A. T. (2017). Analisis Pengaruh Capital Adequacy Ratio, Non-Performing Financing, Operational Efficiency Ratio, dan Inflasi Terhadap Profitabilitas (ROA) pada Bank Pembiayaan Rakyat Syariah 2013:01-2016:08 Metode Vector Auto Regression (VAR). *Journal of Economics Research and Social Sciences*, 1(2), 90–100.
- Syaputra, F. D., & Rialdy, N. (2023). Pengaruh Non Performing Financing Dan Pembiayaan Bagi Hasil Terhadap Profitabilitas Di Bank Syariah. *Ekonom : Jurnal Ekonomi Dan Bisnis*, 3(2), 97–102.

Yuliana, I. R., & Listari, S. (2021). Pengaruh CAR, FDR, Dan BOPO Terhadap ROA Pada Bank Syariah Di Indonesia. *JIAKES Jurnal Ilmiah Akuntansi Kesatuan*, 9(2), 309–334. <https://doi.org/10.37641/jiakes.v9i2.870>