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Research Article

DO CONVENTIONAL AND ISLAMIC RURAL BANKS DIFFER IN FINANCIAL PERFORMANCE: EMPIRICAL EVIDENCE FROM BOGOR

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ABSTRACT

Background: Rural banks play an important role in supporting micro and small businesses in Indonesia. Despite operating under different banking principles, both conventional rural banks and Islamic rural banks face similar challenges in maintaining their financial performance. In Bogor, where both types of institutions are highly concentrated, comparing their financial performance becomes important to assess whether differences in banking type led to different financial outcomes.
Purpose: This study aims to examine whether banking type affects the financial performance of conventional rural banks and Islamic rural banks in Bogor, as measured by return on assets (ROA) and non-performing loans/financing (NPL/NPF).
Design/methodology/approach: This study employs a quantitative explanatory approach using panel data from five rural banks and five Islamic rural banks in Bogor over the period 2020–2024. The analysis uses panel data regression, with the random effect model selected as the most appropriate specification, to estimate the effect of banking type and internal as well as macroeconomic variables on financial performance.
Findings/Results: The results show that banking type does not have a statistically significant effect on either ROA or NPL/NPF. ROA is mainly influenced by internal factors, where the capital adequacy ratio has a positive and significant effect, while bank size and financing ratio have significant negative effects. Meanwhile, no independent variable is found to significantly affect NPL/NPF.
Conclusion: That profitability is more closely associated with internal financial conditions, while financing risk is more likely shaped by management quality and other factors beyond the model.
Originality/value (State of the art): This study contributes to the literature by providing direct local-level evidence on the comparative financial performance of rural banks and Islamic rural banks in Bogor using both profitability and risk indicators in a one-panel regression framework. It highlights that the distinction between conventional and Islamic banking types is less decisive than internal bank conditions in explaining performance differences.

ARTICLE INFO

Keywords:
conventional rural banks, financial performance, Islamic rural bank, banking type, panel data

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INTRODUCTION

Indonesia's banking system operates under a dual framework consisting of conventional and Islamic institutions. This dual structure reflects not only differences in legal and operational principles, but also differences in risk management, financial contracts, and performance orientation. In the rural banking segment, this distinction is represented by conventional rural banks and Islamic rural banks, both of which play an important role in providing financial access for micro, small, and medium enterprises (MSMEs). While both institutions function as financial intermediaries, their operating principles differ substantially, with

conventional institutions relying on interest-based mechanisms and Islamic institutions applying sharia-compliant contracts and profit-sharing arrangements (Pramesti et al.2023; Olson & Zoubi, 2008).

The development of rural banking in Indonesia has shown uneven dynamics. The conventional rural banking industry has experienced consolidation, with the number of institutions declining while total assets, loans, and third-party funds continue to grow. By contrast, Islamic rural banks remain fewer in number and more geographically concentrated, especially in Java, although they continue to show stable institutional growth. This contrast raises an important question as to whether differences in banking type are associated with different levels of profitability and financing risk. The issue becomes more relevant because increasing competition among rural banks may weaken lending standards and intensify operational pressures, making profitability and asset quality key indicators of institutional performance (Sarasyanti & Shofawati, 2020; Fathonie et al.2021).

Bogor provides a particularly relevant setting for this analysis. As an area with a relatively high concentration of both conventional and Islamic rural banks, Bogor reflects a competitive local banking environment in which the comparative financial performance of both types can be directly observed. In such an environment, return on assets (ROA) and non-performing loan/financing (NPL/NPF) are especially important because they capture the two core dimensions of bank performance: profitability and financing risk (Wijaya, 2019). A direct comparison between conventional and Islamic rural banks in Bogor is therefore expected to generate useful evidence on whether differences in banking type translate into different financial outcomes under similar market conditions.

Previous studies on rural and Islamic rural banks have produced mixed findings. Sarasyanti and Shofawati (2020) report that conventional rural banks tend to show better profitability and lower financing risk than Islamic rural banks, while Ismawati et al. (2024) find that mudharabah-based financing negatively affects the profitability of Islamic rural banks. In terms of financing risk, Widarjono et al. (2020) show that profit-and-loss-sharing financing structures are associated with higher non-performing financing, whereas diversification may reduce financing risk. Other studies also emphasize the role of internal bank characteristics. Harahap and Harahap (2019) find that capital adequacy affects Islamic rural bank assets but not necessarily profitability, while Muhammad et al. (2020) show that bank size is negatively associated with non-performing financing. Studies comparing Islamic and conventional banks more broadly also suggest that performance differences are not uniform across institutional settings, which reinforces the need for context-specific analysis (Sulub & Mohd Salleh, 2019; Kamarudin et al.2021).

The inconsistency in the existing literature indicates that the relationship between banking type and financial performance remains unresolved. Most previous studies either focus on national or provincial data, analyze only one type of institution, or examine financial performance through a limited set of indicators. Direct local-level comparison between conventional and Islamic rural banks operating in the same competitive environment remains limited. This creates a clear research gap, particularly in understanding whether banking type itself matters once internal financial conditions and local macroeconomic variables are considered simultaneously (Raharjo et al.2021; Fithria et al.2021).

Accordingly, the novelty of this study lies in providing a direct empirical comparison between conventional and Islamic rural banks in Bogor using both profitability and financing risk indicators within one panel regression framework. By combining ROA and NPL/NPF as dependent variables and incorporating internal as well as macroeconomic controls, this study offers more context-specific evidence on whether banking type remains a meaningful determinant of financial performance in a dense local banking market.

To address the identified gap, this study employs a quantitative explanatory approach using panel data (Muhajirin et al.2024). The study analyzes ten banks in Bogor, consisting of five conventional rural banks and five Islamic rural banks, observed over the period 2020–2024. Financial performance is measured using two main indicators, namely ROA and NPL/NPF. The key explanatory variable is banking type, while the control variables include capital adequacy ratio (CAR), bank size, financing-to-asset ratio (FIN), operating expense to operating income ratio (BOPO), regional gross domestic product (PDRB), and inflation (Harahap & Harahap, 2019; Muhammad et al.2020; Rahmad et al.2024).

Panel data regression is used because it allows the analysis to capture both cross-sectional and time-series variation across banks and years (Madany et al.2022; Mobonggi et al.2022). The study compares several panel specifications and adopts the random effect model as the most appropriate estimator. This approach enables the study to assess whether differences in banking type significantly influence profitability and financing risk after controlling for bank-specific and macroeconomic factors.

Based on the background and research gap above, this study aims to examine whether banking type matters for the financial performance of conventional and Islamic rural banks in Bogor. More specifically, the study seeks to analyze the effect of banking type on profitability as measured by ROA and on financing risk as measured by NPL/NPF. In addition, the study evaluates the role of internal bank variables and macroeconomic conditions in explaining differences in financial performance across the sampled institutions.

METHODS

This study employs a quantitative approach with an explanatory research design to examine whether banking type matters for the financial performance of conventional and Islamic rural banks in Bogor. The quantitative approach is appropriate because the study tests hypotheses using structured numerical data, particularly financial ratios and macroeconomic indicators. The explanatory design is used because the study aims to analyze causal relationships between the independent variables banking type, capital adequacy ratio (CAR), bank size (SIZE), financing-to-asset ratio (FIN), operating expense to operating income ratio (BOPO), regional gross domestic product (PDRB), and inflation and the dependent variables, namely return on assets (ROA) and non-performing loan/financing (NPL/NPF).

The study is conducted in Bogor City and Bogor Regency, West Java. This location is selected because it has an active concentration of both conventional and Islamic rural banks and because these institutions consistently publish financial statements for the 2020–2024 period. The study focuses on financial performance as measured by ROA and NPL/NPF. The data used in this study consist of secondary panel data combining cross-sectional and time-series dimensions. The cross-sectional dimension includes five conventional rural banks and five Islamic rural banks, while the time-series dimension covers the period from 2020 to 2024. The financial data are obtained from the official website of the Financial Services Authority (OJK), especially published banking statistics and bank financial reports. Additional supporting data are collected from Islamic Banking Statistics (SPS), Indonesian Banking Statistics (SPI), Bank Indonesia publications, and official publications of Statistics Indonesia (BPS) for Bogor.

The study uses two sampling approaches. For Islamic rural banks, the study applies a census approach because the total population is limited to five institutions, allowing all of them to be included as the sample. For conventional rural banks, purposive sampling is employed to ensure comparability across groups. Five conventional rural banks are selected based on two criteria: relative asset-scale balance and completeness of financial statement data during the observation period.

Data are collected through document-based retrieval from official institutional sources. The observation period spans from 2020 to 2024 to allow the application of panel data analysis across banks and years. This approach ensures consistency, comparability, and adequacy of the dataset for testing the influence of banking type and other determinants on financial performance.

This study consists of three categories of variables: the independent variable, the dependent variables, and control variables. The main independent variable is banking type, operationalized as a dummy variable to distinguish conventional and Islamic rural banks, where 0 indicates a conventional rural bank and 1 indicates an Islamic rural bank. The dependent variables are ROA, which measures profitability, and NPL/NPF, which measures credit or financing risk. The control variables include CAR, SIZE, FIN, BOPO, PDRB, and inflation. Operationally, FIN refers to the ratio of financing to total assets, indicating the proportion of bank assets allocated to financing activities. CAR measures the bank's capital adequacy in covering potential losses from risky assets. SIZE is measured by the logarithm of total assets. PDRB represents annual regional economic growth in Bogor, while inflation refers to the year-on-year increase in prices. ROA is defined as the profitability ratio measuring the bank's ability to generate earnings from total assets, whereas NPL/NPF

refers to the ratio of problematic credit or financing to total credit or financing.

The data are analyzed using panel data regression with R-Studio 4.5.1. Panel data regression is chosen because it combines time-series and cross-sectional characteristics, enabling the study to capture both inter-bank variation and year-to-year changes. In this study, panel data are formed from ten banks observed during the 2020–2024 period. This method is considered suitable because it provides more informative and efficient estimates for examining the relationship between banking type and financial performance, while also accounting for internal and macroeconomic control variables.

The analysis proceeds through several stages. First, descriptive statistics are used to identify the general characteristics and distribution of the variables, including minimum, maximum, mean, standard deviation, skewness, and kurtosis. Second, panel model selection is conducted through the Chow test, Hausman test, and Lagrange Multiplier test. The Chow test is used to compare the common effect model and fixed effect model, the Hausman test is used to compare the fixed effect and random effect models, and the Lagrange Multiplier test is used to compare the common effect and random effect models. These procedures are necessary to identify the most appropriate estimator for the data structure.

After the most suitable model is selected, panel regression is estimated for each dependent variable, namely ROA and NPL/NPF. The study also uses the coefficient of determination (R-square) to examine how much variation in the dependent variables can be explained by the included regressors. The empirical models can be expressed as follows:

ROA

$$ROA_{it} = \beta_0 + \beta_1 CAR_{it} + \beta_2 SIZE_{it} + \beta_3 Sistem_{it} + \beta_4 FIN_{it} + \beta_5 BOPO_{it} + \beta_6 PDRB_{it} + \beta_7 INF_{it} + \varepsilon_{it}$$

NPL/NPF

$$NPL/NPF_{it} = \beta_0 + \beta_1 CAR_{it} + \beta_2 SIZE_{it} + \beta_3 Sistem_{it} + \beta_4 FIN_{it} + \beta_5 BOPO_{it} + \beta_6 PDRB_{it} + \beta_7 INF_{it} + \varepsilon_{it}$$

where i represents the bank and t represents the year of observation.

The hypotheses in this study are formulated based on previous literature and the argument that differences in banking type, internal bank conditions, and macroeconomic factors may influence profitability and financing risk. Previous comparative studies suggest that conventional and Islamic rural banks may show differences in ROA and NPL/NPF because of their distinct operational principles and risk structures. Raharjo et al. (2021) find significant differences in financial performance between BPR and BPRS, while Sarasyanti and Shofawati (2020) report that conventional rural banks generally perform better in profitability and capital indicators. Other studies also indicate that capital adequacy, financing intensity, bank size, inflation, and operational efficiency may influence bank performance in different ways. Based on these arguments, the hypotheses are formulated as follows:

H1: Banking type has a positive effect on ROA.
H2: CAR has a positive effect on ROA.
H3: SIZE has a positive effect on ROA.
H4: FIN has a positive effect on ROA.
H5: PDRB has a positive effect on ROA.
H6: Inflation has a negative effect on ROA.
H7: BOPO has a negative effect on ROA.
H8: Banking type has a negative effect on NPL/NPF.
H9: CAR has a negative effect on NPL/NPF.
H10: SIZE has a negative effect on NPL/NPF.
H11: FIN has a negative effect on NPL/NPF.
H12: PDRB has a negative effect on NPL/NPF.
H13: Inflation has a positive effect on NPL/NPF.
H14: BOPO has a positive effect on NPL/NPF.

The conceptual framework of this study is developed from the dynamics of Indonesia's microbanking sector, where conventional and Islamic rural banks face pressures from internal, external, and regulatory factors that may affect financial performance (Figure 1). Internal variables such as CAR, SIZE, BOPO, and FIN are expected to influence profitability and financing risk. At the same time, macroeconomic factors such as regional economic growth and inflation may shape the external environment in which these institutions operate. Within this framework, banking type serves as the main institutional distinction between the two groups of banks. Conventional rural banks operate with an efficiency- and interest-based orientation, whereas Islamic rural banks apply sharia principles and specific contractual arrangements. The framework therefore assumes that

financial performance, represented by ROA and NPL/NPF, is determined by the interaction between banking type, internal bank characteristics, and macroeconomic conditions. This framework is used to guide the panel regression analysis and to evaluate whether banking type remains a meaningful determinant of financial performance after relevant controls are included.

RESULTS

Conventional and Islamic rural banks in Bogor play an important role in supporting micro and small enterprises because they provide easier access to financing than commercial banks and serve borrowers with smaller financing needs. In Bogor City and Bogor Regency, both types of institutions function as important pillars of local economic development, making their comparative financial performance highly relevant in a competitive local banking environment.

Table 1 shows that conventional rural banks tended to display more stable profitability during the 2020–2024 period, while Islamic rural banks showed greater volatility. The average ROA of conventional rural banks was 4.84% in 2020 and 5.20% in 2021 before moderating in the following years. By contrast, Islamic rural banks recorded an average ROA of 11.30% in 2020, largely driven by the exceptionally high ROA of BPRS Rif'atul Ummah, before declining in the subsequent period. These results indicate that conventional rural banks generally maintained more consistent profitability, whereas Islamic rural banks were more exposed to sharper year-to-year fluctuations. This pattern is in line with Sarasyanti and Shofawati (2020), who report stronger profitability in conventional rural banks, and Ismawati et al. (2024), who highlight the instability of profitability in Islamic rural banks.

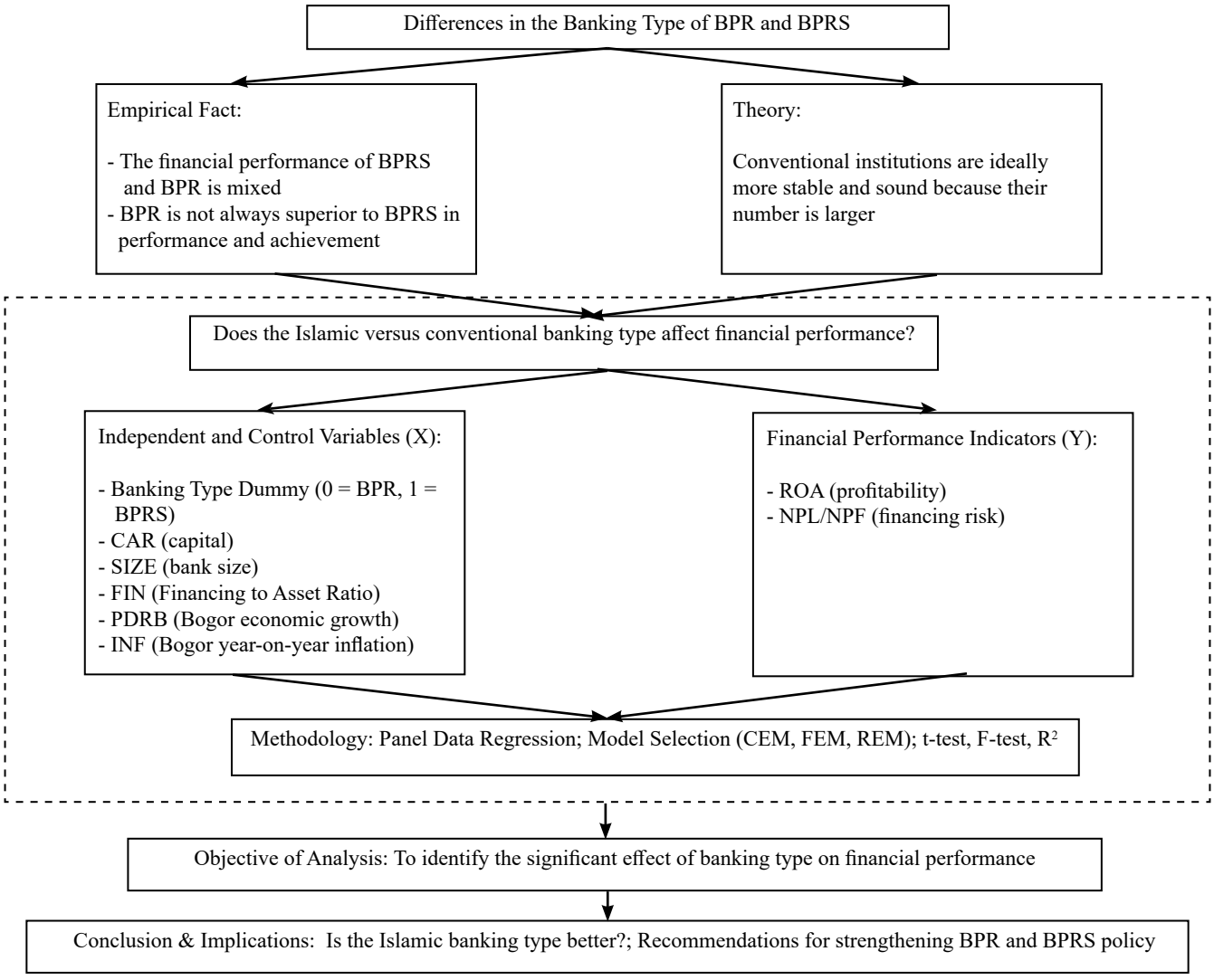

Figure 1. Framework of thought

Table 2 shows that both conventional and Islamic rural banks faced financing-risk pressures, although with different patterns. Conventional rural banks maintained relatively manageable NPL levels until 2021, but their average NPL rose sharply afterward. Islamic rural banks, by contrast, showed more irregular and extreme NPF movements that were heavily influenced by a few outlier institutions. This suggests that risk in Islamic rural banks was more sporadic and case-specific, while conventional rural banks experienced a more generalized rise in financing risk in the later years. This pattern is broadly consistent with Widarjono et al. (2020), who show that financing risk in Islamic rural banks is sensitive to financing composition, and Muhammad et al. (2020), who emphasize the role of internal factors in shaping NPF.

Table 3 shows that both groups of banks continued to expand during the observation period. Average bank size increased for both conventional and Islamic rural banks, indicating that the sampled institutions were able to broaden their operations and asset bases despite profitability and risk pressures. The growth of Islamic rural banks appears slightly more dynamic in the later years, indicating the continuing development of the local sharia banking market. These findings suggest that asset growth occurred in both banking groups, although expansion did not necessarily guarantee stronger profitability or lower financing risk.

Table 1. ROA of Conventional and Islamic Rural Banks in Bogor, 2020–2024

Name of Rural Bank	2020	2021	2022	2023	2024
BPR Bogor Jabar (Perseroda)	1.52	1.18	1.00	1.23	1.62
BPR Dana Mandiri	12.01	0.21	2.95	4.82	8.00
BPR Multi Artha Bersama	6.50	11.49	8.52	5.50	3.12
BPR Perumda BPR Bank Kota Bogor	1.94	6.55	2.69	2.84	2.82
BPR Surya Kencana	2.22	6.55	2.69	2.84	2.82
BPRS Amanah Ummah	3.65	2.99	2.73	2.87	2.39
BPRS Bogor Tegar Beriman (BTB)	1.36	8.04	3.08	1.28	5.06
BPRS Botani Bina Rahmah	14.90	1.32	3.35	3.05	1.75
BPRS HIK Insan Cita	3.24	1.34	2.01	1.65	0.91
BPRS Rif'atul Ummah	33.33	12.70	0.99	7.50	5.89
Average ROA of Conventional Rural Bank	4.84	5.20	3.57	3.45	3.68
Average ROA of Islamic Rural Bank	11.30	5.28	2.43	3.27	3.20

Table 2. NPL/NPF of Conventional and Islamic Rural Banks in Bogor, 2020–2024

Name of Rural Bank	2020	2019	2020	2021	2022	2023	2024
BPR Bogor Jabar (Perseroda)	7.52	5.39	6.14	7.28	23.25	24.41	27.69
BPR Dana Mandiri	0.56	0.82	0.69	1.13	1.72	7.81	4.25
BPR Multi Artha Bersama	8.49	10.04	7.13	6.93	1.50	3.44	4.46
BPR Perumda BPR Bank Kota Bogor	1.18	2.24	0.85	0.87	1.91	5.94	1.84
BPR Surya Kencana	9.93	2.24	0.85	0.87	1.91	5.94	1.84
BPRS Amanah Ummah	3.31	1.28	2.38	1.33	1.63	2.98	1.42
BPRS Bogor Tegar Beriman (BTB)	2.94	11.65	2.87	1.55	1.82	9.41	7.17
BPRS Botani Bina Rahmah	50.72	6.58	3.62	3.07	0.82	1.24	0.01
BPRS HIK Insan Cita	2.95	2.11	4.02	1.72	1.44	2.06	2.06
BPRS Rif'atul Ummah	10.82	9.52	11.54	4.78	30.23	49.50	20.74
Average ROA of Conventional Rural Bank	5.54	4.15	3.13	3.42	6.06	9.51	8.02
Average ROA of Islamic Rural Bank	14.15	6.23	4.89	2.49	7.19	13.04	6.28

Table 4 shows that conventional rural banks generally had stronger capital positions than Islamic rural banks. The average CAR of conventional rural banks remained very high throughout the period and even reached 50.84% in 2021, indicating strong capital buffers. Islamic rural banks also maintained relatively healthy capital levels overall, but their average CAR was generally lower and more volatile. These patterns show that capital strength remained an important supporting factor for both groups, although conventional rural banks had a more consistently superior capital position.

Taken together, the descriptive results indicate that rural banking in Bogor was characterized by a combination of asset growth, mixed profitability, and rising financing risk. Growth in assets was clearly visible, but this expansion was not always accompanied by stable profitability or healthy asset quality. This suggests that future strengthening of both conventional and Islamic rural banks depends not only on scale expansion, but also on stronger underwriting quality and more prudent risk management.

Table 3. Bank Size of Conventional and Islamic Rural Banks in Bogor, 2020–2024

Name of Rural Bank	2020	2019	2020	2021	2022	2023	2024
BPR Bogor Jabar (Perseroda)	25.27	25.41	25.39	25.36	25.35	25.46	25.40
BPR Dana Mandiri	26.02	26.32	26.24	26.24	26.73	26.45	26.32
BPR Multi Artha Bersama	22.85	23.09	23.17	23.22	23.43	23.79	23.82
BPR Perumda BPR Bank Kota Bogor	25.81	25.91	25.97	26.06	26.17	26.22	26.30
BPR Surya Kencana	23.89	23.91	25.97	26.06	26.17	26.22	26.30
BPRS Amanah Ummah	26.35	26.66	26.57	26.70	26.73	26.83	27.00
BPRS Bogor Tegar Beriman (BTB)	24.30	22.66	25.31	25.53	25.80	25.85	26.05
BPRS Botani Bina Rahmah	23.23	23.65	24.03	24.70	25.43	25.69	25.68
BPRS HIK Insan Cita	25.03	25.45	25.50	25.72	26.06	26.28	26.40
BPRS Rif'atul Ummah	22.76	22.89	23.30	23.57	23.67	23.53	24.09
Average Size of Conventional Rural Bank	24.77	24.93	25.35	25.39	25.57	25.63	25.63
Average Size of Islamic Rural Bank	24.33	24.26	24.94	25.24	25.54	25.64	25.84

Table 4. CAR of Conventional and Islamic Rural Banks in Bogor, 2020–2024

Name of Rural Bank	2020	2019	2020	2021	2022	2023	2024
BPR Bogor Jabar (Perseroda)	33.93	29.50	42.84	44.73	38.93	37.14	36.85
BPR Dana Mandiri	18.18	20.87	22.99	24.95	21.41	17.71	13.45
BPR Multi Artha Bersama	35.90	46.40	61.33	74.70	78.82	61.24	7.46
BPR Perumda BPR Bank Kota Bogor	57.40	56.73	56.63	54.90	49.68	52.05	48.61
BPR Surya Kencana	16.95	43.56	56.63	54.90	49.68	52.02	48.61
BPRS Amanah Ummah	14.98	26.66	19.43	21.52	21.02	20.87	18.91
BPRS Bogor Tegar Beriman (BTB)	69.45	54.50	58.74	69.53	30.62	26.30	11.69
BPRS Botani Bina Rahmah	25.40	15.81	18.53	45.48	35.83	24.83	20.36
BPRS HIK Insan Cita	14.49	13.53	16.33	16.16	15.36	15.24	14.85
BPRS Rif'atul Ummah	14.00	18.81	18.00	32.62	0.00	12.30	36.82
Average CAR of Conventional Rural Bank	32.47	39.41	48.08	50.84	47.70	44.03	31.00
Average CAR of Islamic Rural Bank	27.66	25.86	26.21	37.06	20.57	19.91	20.53

This study applies panel data regression to estimate the effects of banking type, internal banking variables, and macroeconomic factors on ROA and NPL/NPF. The analysis begins with model selection to determine whether the fixed effect model or random effect model is more appropriate for each equation. This step is followed by diagnostic testing to assess the presence of autocorrelation and heteroskedasticity, which may affect the validity of statistical inference. Table 5 shows that the Hausman test p-values for both ROA and NPL/NPF exceed 0.05, indicating that the random effect model (REM) is the most appropriate specification for both equations. The diagnostic tests further reveal that the ROA model is affected by heteroskedasticity, while the NPL/NPF model is affected by both heteroskedasticity and autocorrelation. These violations were addressed in RStudio using robust covariance estimation with vcovHC, so that the reported standard errors, t-statistics, and p-values are robust for inference. Accordingly, the final interpretation of the panel regression results is based on REM with robust standard errors.

Table 6 shows that the ROA model is jointly significant, with a probability value below 0.05 and an R-squared of 0.249. This indicates that 24.9% of the variation in profitability is explained by the variables included in the model, while the remaining variation is associated with other factors outside the regression framework. At the partial level, the hypothesis on banking type and profitability (H1) is not supported because banking type does not have a statistically significant effect on ROA. This means that the distinction between conventional and Islamic rural banks does not, by itself, explain profitability differences in Bogor. By contrast, H2 is supported, as CAR has a positive and significant effect on ROA, indicating that stronger capital adequacy improves profitability. H3 is not supported because SIZE, although significant, has a negative rather than positive coefficient. This suggests that larger bank size is associated with lower profitability, indicating that expansion of total assets does not necessarily improve returns. H4 is also not supported because FIN has a significant negative effect on ROA, whereas the hypothesis expected a positive effect. This implies that greater financing intensity may reduce profitability when financing expansion is not matched by sufficient asset quality and risk control. H5 is not supported because PDRB does not significantly affect ROA. Likewise, H6 is not supported because inflation does not show a significant negative effect on profitability. Finally, H7 is not supported in its original direction: BOPO is weakly significant at the 10% level, but its coefficient is positive rather than negative. Altogether, these results show that only H2 is fully supported in the ROA model, while H1, H3, H4, H5, H6, and H7 are rejected either because they are statistically insignificant or because the coefficient signs differ from the proposed hypotheses.

Table 5. Bank Size of Conventional and Islamic Rural Banks in Bogor, 2020–2024

Dependent Variable	Hausman p-value	Selected Model	Autocorrelation p-value	Heteroskedasticity p-value
ROA	0.9864	REM	0.6229	0.001638
NPL/NPF	0.9485	REM	0.03685	0.005151

Table 6. Random Effect Regression Results for ROA and NPL/NPF

Variables	ROA Model		NPL/NPF Model	
	Coefficient	p-value	Coefficient	p-value
(Intercept)	27.7851	0.0000	146.2333	0.1361
CAR	0.0421	0.0024	-0.1498	0.2751
SIZE	-0.6905	0.0029	-5.3917	0.1230
Dummy System	-1.6814	0.1361	-3.1340	0.6416
FIN	-0.0952	0.0174	-0.0404	0.7155
BOPO	0.0193	0.0626	0.0410	0.1512
PDRB	-0.1910	0.3998	0.6897	0.1974
INF	0.0082	0.9710	0.5235	0.4494

Table 6 also shows that the NPL/NPF model is jointly significant, with an adjusted R-squared of 0.137. This means that 13.7% of the variation in financing risk is explained by the variables included in the model, while most of the variation is related to other factors outside the model. However, none of the explanatory variables shows a statistically significant partial effect on NPL/NPF. As a result, H8 is not supported because banking type does not have a significant negative effect on NPL/NPF. H9 is also not supported because CAR is not significant, even though its coefficient is negative. H10 is not supported because SIZE is not statistically significant, despite having a negative sign. H11 is not supported because FIN does not significantly affect NPL/NPF. H12 is not supported because PDRB does not significantly reduce financing risk. H13 is not supported because inflation, although positively signed, is statistically insignificant. H14 is likewise not supported because BOPO does not significantly affect NPL/NPF, even though the coefficient is positive. These findings indicate that none of the hypotheses proposed for the NPL/NPF model is empirically supported in the Bogor sample. Financing risk therefore appears to be influenced more strongly by other factors beyond the observed internal and macroeconomic variables, particularly management quality, borrower behavior, and institutional conditions not fully captured in the model.

The regression results indicate that the determinants of profitability differ from the determinants of financing risk. In the ROA model, profitability is more responsive to internal financial conditions, especially capital adequacy, asset size, and financing allocation. In the NPL/NPF model, by contrast, the explanatory variables do not show statistically significant partial effects, suggesting that financing risk is shaped by more complex and less directly observable factors. Most importantly, the hypothesis that banking type matters for financial performance is not supported in either equation. Both H1 and H8 are rejected, which implies that differences in financial performance between conventional and Islamic rural banks in Bogor are better explained by internal managerial and operational conditions than by institutional type alone.

The result suggests that the financial performance of conventional and Islamic rural banks in Bogor is shaped more by internal managerial quality than by banking type itself. This is particularly visible in the role of capital adequacy. Stronger capital appears to support profitability because it strengthens the bank's internal resilience, improves public confidence, and gives management greater room to expand business activities in a healthier manner. This interpretation is consistent with Alifah (2014) and Prastiyaningtyas (2010), who also argue that stronger capital adequacy supports higher profitability. At the same time, capital adequacy does not seem to function as a direct mechanism for controlling financing risk. This supports the argument that capital serves more as a protective buffer than as an active instrument of risk prevention, in line with Cahyati (2020) and with Godlewski (2005), who emphasizes that the relationship between capital and risk is inherently complex.

A similar pattern emerges in the interpretation of bank size. In theory, a larger bank is usually expected to benefit from economies of scale, stronger diversification, and better operating efficiency. This expectation appears in the hypothesis development and is supported by Damayanti and Mawardi (2022), who associate larger size with stronger growth and efficiency. However, the findings in Bogor suggest that expansion in asset size does not automatically produce stronger performance. Instead, the results are more consistent with the idea of diseconomies of scale, as discussed by Sufian and Chong (2008) and Eichengreen and Gibson (2001), where increasing size may be accompanied by organizational rigidity, bureaucratic complexity, and weakening operational agility. This interpretation is reinforced by the discussion in the original draft that, in the BPR/BPRS context, growth in scale is not a guarantee of better performance and may even reduce the institutional flexibility that is central to serving local markets effectively.

The discussion of financing intensity and operating costs further strengthens the conclusion that managerial quality matters more than simple balance-sheet expansion. Financing-to-asset allocation is theoretically expected to support profitability because it reflects the use of productive assets, and this expectation is supported in the draft by Fithria et al. (2021). Yet the broader interpretation of the findings indicates that more aggressive financing expansion may reduce performance when it is not accompanied by prudent underwriting and monitoring. This is consistent with Sriawan et al. (2020), who highlight the profitability risks of excessive lending exposure, and with Berger and DeYoung (1997), who stress that deterioration in asset quality is fundamentally related to management quality

rather than to financing quantity alone. A comparable logic applies to BOPO. In standard banking theory, higher operating costs are typically associated with lower efficiency and weaker profitability, as reflected in Irawan et al. (2025), Rosandy (2022), and Suryadi et al. (2020). However, the result can also be interpreted through the perspective of Hakiim and Rafsanjani (2016), who argue that higher operating expenses may in some cases reflect strategic expansion rather than inefficiency. In the context of BPR and BPRS, this means that operational spending may represent investment in branches, staff, or infrastructure that supports future earnings. At the same time, the absence of a strong link between BOPO and financing risk supports the argument of Syahid (2016) and Permatasari (2019) that operating efficiency and risk management are related but ultimately distinct dimensions.

The limited explanatory role of macroeconomic variables also points to the importance of local institutional and managerial conditions. Theoretically, stronger regional growth should improve profitability and reduce financing risk by increasing economic activity and repayment capacity, as argued by Praja et al. (2023). Likewise, inflation is commonly expected to weaken profitability and worsen financing quality, as suggested by Asysidiq and Sudiyatno (2022), Barus and Erick (2017), and the literature summarized in the hypothesis section. However, the broader interpretation of the findings indicates that conventional and Islamic rural banks in Bogor are more strongly influenced by borrower selection, internal governance, and day-to-day operational practices than by regional macroeconomic movements alone. This interpretation is consistent with the draft's discussion of Herdian (2023), Saputra (2015), Anto and Wibowo (2012), Rosanna (2007), Nourma Atiqoh (2015), Tabrizi (2014), and Darmawan (2022), all of which point to the possibility that the impact of macroeconomic variables on smaller banking institutions is mediated by institutional context and local borrower relationships. In other words, BPR and BPRS appear to operate in a setting where internal discipline matters more than macroeconomic conditions in determining actual performance outcomes.

Perhaps the most important implication of the study is that banking type does not emerge as the decisive factor in explaining either profitability or financing risk. The original theoretical expectation was that conventional and Islamic rural banks would differ because they operate under different principles, financing contracts, and risk philosophies, and this expectation is reflected in Raharjo et al. (2021). Yet the overall evidence suggests that once both groups operate in the same local market and serve similar segments, their performance is shaped more by managerial effectiveness than by whether they are conventional or Islamic. This interpretation is consistent with Sulub and Mohd Salleh (2019) and Kamarudin et al. (2021), who show that profitability and productivity differences between conventional and Islamic banks are often overshadowed by differences in efficiency, leverage, and management quality. It also aligns with Abduh and Idrees (2013) and Olson and Zoubi (2008), who emphasize that sound banking practice is largely universal: healthy profitability and manageable risk depend less on institutional label and more on how well the institution manages capital, operational efficiency, financing quality, and risk governance. Taken together, the findings support the broader conclusion that the future strengthening of BPR and BPRS should focus not on the distinction between banking types, but on the quality of implementation of prudent, efficient, and well-governed banking practices.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

This study examines whether banking type matters for the financial performance of conventional and Islamic rural banks in Bogor during the 2020–2024 period. The findings show that banking type does not have a significant effect on either profitability or financing risk. This indicates that, although Islamic rural banks operate under more complex institutional arrangements and must comply with both banking regulations and sharia principles, such structural differences do not make their financial performance statistically better or worse than that of conventional rural banks. In this respect, the main determinants of performance are not the institutional labels of the banks, but the internal conditions and management quality of each institution. The study further shows that profitability, as measured by ROA, is more strongly associated with internal financial factors. Capital adequacy contributes positively to profitability, suggesting that stronger capital supports healthier and more resilient earnings performance. By contrast, bank size and financing intensity are associated with lower profitability, implying that asset expansion and more aggressive financing allocation do

not automatically improve financial outcomes. Instead, growth in scale and financing needs to be accompanied by sound risk management and operational discipline so that expansion does not weaken earnings.

In contrast, financing risk, as measured by NPL/NPF, is not significantly explained by the internal and external variables included in the model. This suggests that problematic financing in conventional and Islamic rural banks in Bogor is likely influenced by factors outside the regression framework, particularly management quality, internal policies, borrower behavior, and the effectiveness of risk control practices. Taken together, the findings imply that the financial condition of rural banking institutions in Bogor is better understood through managerial and operational capability than through the distinction between conventional and Islamic banking types.

Recommendations

Based on these findings, conventional and Islamic rural bank management should place greater emphasis on strengthening capital adequacy and maintaining sound operational discipline. The results suggest that profitability is more sensitive to internal balance-sheet management than to banking type, so efforts to improve performance should focus on better capital management, prudent financing allocation, and careful control of expansion strategies. Growth in assets and financing should not be pursued merely in quantitative terms, but should be accompanied by stronger risk assessment and operational efficiency so that expansion does not reduce profitability.

For regulators, particularly the Financial Services Authority, the findings suggest the importance of risk-based supervision that focuses not only on institutional distinctions between conventional and Islamic rural banks, but more importantly on capital strength, efficiency, and asset quality. Since profitability appears to be driven mainly by internal conditions, supervisory attention should be directed toward financing expansion, operational discipline, and the sustainability of growth strategies, especially among smaller banks that may be more vulnerable to inefficient or overly aggressive expansion.

For future research, further studies should explore additional determinants of financing risk beyond the variables included in this model. Given that NPL/NPF is not significantly explained by the observed internal and macroeconomic variables, future work may benefit from incorporating variables related to management quality, governance, borrower characteristics, and financing monitoring. A broader geographical scope, a longer period of observation, or alternative analytical approaches may also provide a more comprehensive understanding of the financial performance of rural and Islamic rural banks in Indonesia.

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