JIEFeS

Journal of Islamic Economics and Finance Studies

NPF of Islamic Rural Banks in Indonesia: Do Socio-Economic Factors and Bank Performance Matter?

Rifky Zahrul Aprilian*

State Islamic University Maulana Malik Ibrahim Malang, Indonesia

rifkyzahrulaprilian@gmail.com

Barianto Nurasri Sudarmawan

State Islamic University Maulana Malik Ibrahim Malang, Indonesia

barianto@uin-malang.ac.id

*Corresponding author

Abstract

This study focuses on the analysis of socio-economic factors and bank characteristics that affect non-performing financing (NPF) in Islamic Rural Banks (BPRS) in Indonesia. The main problem raised is the high level of NPF which can threaten the financial stability of BPRS, even though financial inclusion continues to increase. The study uses the Panel Data Regression method, utilizing a sample of 139 BPRS registered with the Financial Services Authority (OJK) during the period 2015-2024. The results of the study show that economic inequality and operational efficiency have a significant effect on NPF, while the unemployment rate, GDP, and Financing to Deposit Ratio (FDR) do not show a significant effect. Capital Adequacy Ratio (CAR) and Return on Assets (ROA) are proven to have a significant impact on reducing the risk of non-performing financing. This finding emphasizes the importance of managing these variables to support the sustainability of BPRS in supporting financial inclusion and preventing the risk of bankruptcy.

Keywords: Non-Performing Financing, Socioeconomic, Bank Characteristics, Financial Inclusion, BPRS.

Abstrak

Penelitian ini berfokus pada analisis faktor-faktor sosial ekonomi dan karakteristik bank yang memengaruhi pembiayaan bermasalah (Non-Performing Financing/NPF) pada Bank Pembiayaan Rakyat Syariah (BPRS) di Indonesia. Permasalahan utama yang diangkat adalah tingginya tingkat NPF yang dapat mengancam stabilitas keuangan BPRS, meskipun inklusi keuangan terus meningkat. Penelitian menggunakan metode Regresi Data Panel, dengan memanfaatkan sampel dari 139 BPRS yang terdaftar di Otoritas Jasa Keuangan (OJK) selama periode 2015-2024. Hasil penelitian menunjukkan bahwa ketimpangan ekonomi dan efisiensi operasional memiliki pengaruh signifikan terhadap NPF, sementara tingkat pengangguran, GDP, dan Financing to Deposit Ratio (FDR) tidak menunjukkan pengaruh signifikan. Capital Adequacy Ratio (CAR) dan Return on Assets (ROA) terbukti memiliki dampak signifikan dalam mengurangi risiko pembiayaan bermasalah. Temuan ini menegaskan pentingnya pengelolaan variabel-variabel tersebut untuk mendukung keberlanjutan BPRS dalam mendukung inklusi keuangan dan mencegah risiko kebangkrutan.

***Kata kunci:** Non-Performing Financing, Sosial Ekonomi, Karakteristik Bank, Inklusi Keuangan, BPRS.*

INTRODUCTION

Financial inclusion is one of the main priorities emphasized by the Indonesian government through Bank Indonesia and the Financial Services Authority (OJK). This effort aims to expand access to financial services for all segments of society, particularly the middle to lower-income groups (Kusuma et al., 2022). Financial inclusion seeks to ensure that every individual, regardless of social or economic status, can utilize financial services such as savings, credit, financing, and insurance (Sri Hartati, 2021). This initiative is expected to promote economic equality and improve overall community welfare (Lusiana et al., 2022).

In this context, Islamic Rural Banks (Bank Pembiayaan Rakyat Syariah or BPRS) play a strategic role in supporting financial inclusion, especially in reaching underserved communities and micro-entrepreneurs who often face difficulties accessing conventional banking services (Khoiriyah & Amalia, 2023). The Sharia People's Financing Bank (BPRS) in particular has an equally important role in increasing the financial inclusion index. As part of sharia banking that focuses on local communities, BPRS can more easily reach the lower classes and micro entrepreneurs who often cannot be served by commercial banks (Nugrohowati & Bimo, 2019). Through a more personal approach and flexible financial products, BPRS can help overcome the obstacles faced by the community in accessing financial services (Bongomin et al., 2019). Thus, BPRS has great potential in encouraging the achievement of broader and more equitable financial inclusion goals, as well as supporting government policies to improve the welfare of society as a whole (Akoijam, 2012). Sharia banking has a central role in participating in increasing the financial inclusion index through financing (Rifa'i, 2017). Sharia banking plays an active role in providing financing that is intended to help all groups, with fairness in providing financing will help all levels of society (Lal, 2019).

However, the advancement of financial inclusion also comes with challenges, one of which is the high risk of problematic financing, commonly referred to as Non-Performing Finance (NPF). NPF reflects the amount of financing that is troubled or in default, potentially affecting the financial stability of banking institutions, including BPRS (Hosen & Muhari, 2019). As financial inclusion increases, financing becomes more equitable, allowing a broader segment of society to access it. This also leads to a greater volume of financing provided by banks. However, with a more inclusive economy, the ratio of NPF tends to rise. Greater economic inclusivity leads banks to assume higher risks, as the volume of financing disbursed grows (Hamda & Nurasri Sudarmawan, 2023).

Furthermore, efforts to enhance financial inclusion in the banking sector indicate an increase in the financing risks faced by banks. Financial inclusion pressures banks to allocate more capital, reducing profits due to innovations aimed at simplifying access for the public (Shihadeh & Liu, 2019).

Data from OJK shows that the financial inclusion rate increased from 76.19% in 2019 to 88.70% in 2023. Unfortunately, during the same period, the NPF ratio

experienced a significant rise, reaching 9.11% in 2024. This suggests that the increase in financial inclusion is not always accompanied by adequate risk management, potentially threatening the sustainability of BPRS (Putri & Sudarmawan, 2023).

Several socioeconomic factors influence the NPF rate, including income inequality, unemployment rates, and Gross Domestic Product (GDP) growth, which often serve as key indicators affecting the public's ability to fulfill financing obligations (Ginting, 2017). High economic inequality, for instance, can widen the gap between those who are capable and those who are not, making lower-income groups more vulnerable to default risks (Kuncoro, 2019). Additionally, high unemployment rates reduce people's purchasing power and their ability to meet financial obligations (Devi & Juniwati, 2024).

Economic inequality has a significant impact on financing risks (Papadopoulos, 2019). From 2022 to 2023, the inequality rate increased significantly to 0.388%. This was due to the economic recovery in 2023, which allowed many individuals to access banking products and improve their financial situations. However, for those with lower incomes, the lack of collateral and financial resources made it increasingly difficult to secure financing, thus exacerbating inequality. Broadly speaking, inequality causes rural communities, especially those in lower-income groups, to struggle in accessing financing from conventional banks due to insufficient collateral and capital. As a result, these groups rely more heavily on BPRS, which tends to provide financing with more inclusive terms tailored to local economic conditions (Nur'aisyah et al., 2020). In addition to inequality, a novel aspect of this study is the inclusion of unemployment as a variable. One reason for problematic financing in banking is the increased NPF rate, which correlates with rising unemployment rates. High unemployment in a country lowers the output of goods and services, thereby reducing the population's ability to meet financial obligations (Devi & Juniwati, 2024).

Moreover, banking performance metrics such as the Capital Adequacy Ratio (CAR), Operating Efficiency Ratio (OER), Financing to Deposit Ratio (FDR), and Return on Assets (ROA) play critical roles in determining a bank's ability to manage problematic financing. CAR, which reflects a bank's capital adequacy, determines the extent to which the bank can absorb financing risks (Miranti & Oktaviana, 2022). OER represents the bank's operational efficiency in managing its operational costs, while FDR indicates the bank's liquidity levels. ROA, on the other hand, reflects the bank's ability to generate profits from its assets. A balance among these indicators is crucial to maintaining a bank's financial health and ensuring its operational sustainability.

Based on the above background, this study aims to identify and analyze the factors that influence the NPF level in BPRS by combining socio-economic variables and banking performance. New variables such as economic inequality and unemployment rates are included to provide new insights. Thus, the contribution of this study is to provide clarity on banking problems in Islamic Banks and to improve previous studies conducted by Wibowo & Saputra, (2017); Sudarsono, (2018) and Nugrohowati & Bimo, (2019).

LITERATURE REVIEW

The Influence of Inequality on Non-Performing Financing

Inequality arises because natural resources and factors of production vary across regions, resulting in differences in regional development levels, ultimately creating a gap in welfare between regions (Kuncoro, 2019). Income inequality occurs due to disparities in economic prosperity between the rich and the poor, as reflected in the differences in income earned. An important aspect of measuring the equity of income distribution in a region or country is through the analysis of income distribution (Ahmed & Shadmani, 2024).

Inequality causes rural communities, particularly those in the lower-middle-income group, to face difficulties accessing financing from commercial banks. This lack of access makes them more dependent on BPRS, which tends to provide financing with more inclusive terms tailored to the economic conditions of the local community (Papadopoulos, 2019). However, this dependency brings about increased risks for BPRS, as, under conditions of high inequality, the ability of communities to meet their financial obligations becomes more vulnerable. Economic instability and reduced income levels caused by inequality increase the risk of defaults or bad credit, thereby contributing to a rise in NPF rates at BPRS.

H1: Inequality has an effect on Non-Performing at BPRS in Indonesia.

The Influence of Unemployment Rates on Non-Performing Financing

Unemployment can be interpreted as human resources or in the workforce who are looking for work but have not become employees or workers in any job (Devi & Juniwati, 2024). Unemployment occurs when a number of labor factors are transferred to other sectors that will not reduce the overall output of the original industry or when the marginal productivity of the labor factor unit in its place of origin is zero, almost zero or negative (Devi & Juniwati, 2024).

The increasing unemployment rate is one of the reasons for the increase in the NPF ratio, this is because when the unemployment rate increases, it will cause the output of goods and services to decrease due to the influence of decreasing income, then it will affect the ability to fulfill obligations to banks which will become stuck. To overcome the increase in the NPF ratio due to high unemployment, banks can offer credit restructuring such as rescheduling payments and extending the tenor, as well as supporting economic empowerment programs through skills training and micro-business financing. In addition, financial education and collaboration with MSMEs are also important to help customers increase their income and meet their obligations. The unemployment rate affects NPF, this is because when customers have financing obligations but no longer have income due to unemployment, this causes financing obligations to not be met or become stuck. The hypothesis of this study is supported by research by Devi & Juniwati, (2024), Nindita, (2015) that the unemployment rate has a effect on NPF. So the hypothesis obtained:

H2: The unemployment rate has an effect on Non-Performing at BPRS in Indonesia

The Influence of GDP on Non-Performing Financing

GDP is a measuring tool to see the growth of the economy and measure economic performance directly (Alfian Akbar, 2016). Apart from unemployment, the next external or socio-economic factor is economic growth which refers to the development process by the community of economic activities involving the community in all lines to produce goods and services and increase the economic strength of the community (Devi & Juniwati, 2024). Bank loans are the main source of business financing and are expected to encourage economic growth (Hidayah & Meylianingrum, 2024). Measurement of economic growth can use GDP. High economic growth can encourage banks to expand their financing. However, banks must be careful in choosing the right recipient. The lack of caution of banks in providing financing can result in high NPF. If NPF cannot be managed, it will have a negative impact on profits. Therefore, high economic growth tends to lead to an increase in NPF due to the distribution of very large funding (Priyadi et al., 2021). GDP affects NPF, this is because when the community's economic conditions are good or increasing, it will reduce the NPF level, and customers will get more income to meet financing obligations. The hypothesis in this study is supported by research conducted by Devi & Juniwati, (2024); Hosen & Muhari, (2019) stated in their results that GDP has a effect on NPF. So the hypothesis obtained:
H3: GDP has an effect on Non-Performing at BPRS in Indonesia

The Influence of CAR on Non-Performing Financing

According to Fransiska & Siregar, (2023) Banks that have a higher capital adequacy ratio tend to have good management, so it can be said that CAR is a determining factor in moral hazard that can be avoided or not. By having sufficient bank capital, problematic financing in banks will also be reduced, because the risks that occurred previously have been estimated, the potential losses experienced by the bank will be overcome if the bank has a good capital adequacy ratio (Yolanda & Ariusni, 2019).

The relationship between CAR and NPF, is because when banks have a high CAR or high capital adequacy ratio, banks will have a higher ability to handle problematic financing, therefore CAR affects NPF to anticipate potential losses. The taking of this research hypothesis is supported by research by Auliani & Syaichu, (2016); Wibowo & Saputra, (2017); Nugrohowati & Bimo, (2019); Wahyuni et al., (2023) stated that CAR has a significant effect on NPF. So the hypothesis obtained:
H4: CAR has an effect on Non-Performing at BPRS in Indonesia

The Influence of OER on Non-Performing Financing

Operational Efficiency Ratio (OER) is a ratio used to compare operational costs with operational income. This ratio is used to measure the efficiency of banking operations. If the cost ratio is smaller than the income, then the bank has been efficient in carrying out operations because less costs are incurred than the income

earned (Widyawati & Djazari, 2017). A high OER ratio indicates efficiency in operational costs. So when costs are more efficient, it will create more capital reserves to be ready to face problematic financing. However, when operational costs are unstable or disrupted or inefficient, it will also affect financing which will later result in problematic financing (Priyadi et al., 2021).

The relationship between OER and NPF, this is because when an operation is more effective, banks will dare to issue more financing, but when financing increases, problematic financing also increases. The hypothesis in this study is supported by research by Widyawati & Djazari, (2017) which states that OER has a significant effect on NPF. So the hypothesis obtained:

H5: OER has an effect on Non-Performing at BPRS in Indonesia

The Influence of FDR on Non-Performing Financing

FDR can describe the level of banking liquidity. If the bank has high liquidity, the problematic financing that occurs will be easily resolved, because the bank will be able to easily liquidate the assets they have. Some banks, although they have high problematic financing, have a liquidity ratio above average so that it can be resolved (Elliyana et al., 2020). The relationship between FDR (Loan to Deposit Ratio) and problematic financing reflects the level of dependence of the bank on sources of funds obtained from the public to fund the distribution of financing. FDR describes the proportion of total customer savings funds used by the bank to provide loans to borrowers.

FDR affects NPF, this is because when the bank experiences high liquidity, the bank will issue large financing, as a result of high financing from the bank will also increase NPF. Hypothesis making in this study is supported by research conducted by Wahyudin et al., (2020); Wahyuni et al., (2023); Ardana, (2019); Elliyana et al., (2020), stated that FDR has a significant effect on NPF. So the hypothesis obtained:

H6: FDR has an effect on Non-Performing at BPRS in Indonesia

The Influence of ROA on Non-Performing Financing

Return on Assets (ROA) is one of the profitability ratios used to measure the effectiveness of a company in generating profits by utilizing the total assets owned (Nugrohowati & Bimo, 2019). Return on Assets (ROA) is related to NPF. High ROA indicates that the financing carried out has produced results or profits. Basically, ROA is a ratio of how effective assets are in generating profits, so when ROA is high, the profits generated by assets will be high. In banking, assets are in the form of financing, so most of the bank's profits come from financing (Priyadi et al., 2021).

ROA affects NPF, this is because when the ROA ratio is high, the assets used, namely financing, have generated profits for the bank, when ROA is small, the risk of problematic financing will increase. The hypothesis in this study is supported by research conducted by Muhammad et al., (2020); Nugrohowati & Bimo, (2019), stating that ROA has a significant negative effect on NPF. So the hypothesis obtained:

H7: ROA has an effect on Non-Performing Financing at BPRS in Indonesia

CONCEPTUAL FRAMEWORK
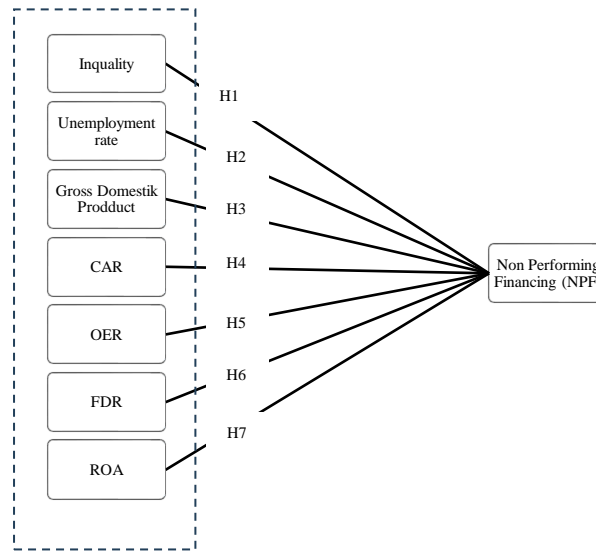
The following is the conceptual framework in this study

Figure 2.1 Conceptual Framework
Source: Data processed by researchers

RESEARCH METHOD

This study uses a quantitative method with an explanatory research approach to explain the causal relationship between socio-economic variables and bank characteristics on the level of Non-Performing Financing (NPF) at Islamic Rural Banks (BPRS) in Indonesia during the period 2015-2024. The subjects of the study included all BPRS registered with the Financial Services Authority (OJK), while the objects were annual financial reports and data related to the research variables. The study was conducted using documentation techniques, where combined time series and cross-sectional panel data were obtained from the OJK website and the official website of each BPRS. The population of this study was 175 BPRS with a sample of 139 BPRS selected using the purposive sampling method based on the criteria for completeness of data during the study period. Data analysis was carried out using Panel Data Regression to identify patterns, relationships, with steps, determining the estimation of the panel data regression model, then the Classical Assumption Test, and finally the hypothesis test.

RESULTS AND DISCUSSION
Model Selection Test

Table 1. Chow Test & Hausman Test

Uji Chow		Uji Hausman	
Cross-section Chi-square	0.0000	Cross-section random	0.0002

Source: data processed by Eviews12, 2024

Based on the results of data processing, it shows that the Chow Test has a Cross-section Chi-square value with a Prob. value of 0.0000 <0.05, so the selected model is FEM. Then based on the results of data processing, it shows that the Hausman Test has a Cross-section Chi-square value with a prob. value of 0.0002 <0.05, so the selected model is FEM.

Classical Assumption Test

Table 2. Normality Test

Jarque-Bera	1.006647
Probability	0.604518

Source: data processed by Eviews12, 2024

Based on the normality test above, the probability value obtained is 0.604518> 0.05, meaning that the data is normally distributed because it is more than 0.05.

Table 3. Heteroscedasticity Test

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
X1	48.81562	100.9383	1.014537
X2	0.020305	11.24920	1.070319
X3	0.015643	5.262561	1.063838
X4	7.96E-07	1.498093	1.496903
X5	0.345971	3.960637	1.901613
X6	2.30E-05	4.465020	1.011060
X7	1.91E-07	1.377227	1.359780

Source: data processed by Eviews12, 2024

Based on the results of the multicollinearity test presented in the table above, there was no correlation of VIF <10 so that there was no multicollinearity in the regression model.

Table 4. Heteroscedasticity Test

Variable	Coefficient	t-Statistic	Prob.
X1	-165.4482	-0.336458	0.7366
X2	1.371136	0.138165	0.8901
X3	33.31029	0.191037	0.8485
X4	-0.346112	-1.001372	0.3169
X5	-0.258677	-0.029256	0.9767
X6	0.002876	0.791808	0.4287
X7	-25.52057	-1.454477	0.1462

Source: data processed by Eviews12, 2024

Based on the results of the Breusch Pagan Godfrey test, the value of the inequality probability (X1), Unemployment Rate (X2), GDP (X3), CAR (X4), OER (X5), FDR (X6), and ROA (X7) > 0.05, meaning that there is no heteroscedasticity

Table 5. Autocorrelation Test

Durbin-Watson stat	1.471569

Source: data processed by Eviews12, 2024

Based on the results of data processing, there is a Durbin-Watson Value of 1.471569 between 1 and 3, so there is no autocorrelation

Hypothesis Test

Table 6. T Test

Variable	Coefficient	t-Statistic	Prob.
X1	81.74623	4.485467	0.0000
X2	0.216315	0.577096	0.5640
X3	-0.104997	-0.752730	0.4518
X4	-0.014313	-2.275929	0.0231
X5	6.53E-14	9.920570	0.0000
X6	-7.11E-05	-1.328162	0.1844
X7	-0.062074	-2.430136	0.0153

Source: data processed by Eviews12, 2024

Based on the T-test to test the partial relationship, X1 prob. 0.0000 <0.05 then the inequality variable has an effect on NPF. Then the coefficient of the inequality variable shows a value of 81.74 then the form of the relationship between the inequality variable is positive. So the conclusion H1 is accepted, the inequality variable has a positive effect on NPF at BPRS in Indonesia in the period 2015 to 2024.

Based on the T Test to test the relationship partially obtained X2 prob. 0.5640> 0.05, then the unemployment rate variable has no effect on NPF. The coefficient value shows the number 0.21 then the form of the relationship is positive but does not affect. So the conclusion H2 is rejected, the unemployment rate variable has no effect on NPF at BPRS in Indonesia in the period 2015 to 2024.

Based on the T Test to test the relationship partially obtained X3 prob. 0.4518> 0.05, then the GDP variable has no effect on NPF. The coefficient value shows the number -0.10. So the conclusion H3 is rejected, GDP variable does not affect NPF in BPRS in Indonesia in the period 2015 to 2024.

Based on the T-test to test the partial relationship obtained X4 prob. 0.0231 <0.05, then the CAR variable affects NPF. The CAR variable coefficient value shows the number -0.014, so the form of the relationship is negative. So the conclusion H4 is accepted, the CAR variable has a negative effect on NPF in BPRS in Indonesia in the period 2025 to 2024

Based on the T-test to test the partial relationship obtained X5 prob. 0.0000 <0.05, then the OER variable affects NPF. The coefficient value of the OER variable shows the number 6.53, so the form of the relationship is positive. So the conclusion H5 is accepted, the OER variable has a positive effect on NPF in BPRS in Indonesia in the period 2015 to 2024.

Based on the T-test to test the partial relationship obtained X6 prob. 0.1844 > 0.05, then the FDR variable has no effect on NPF. The coefficient value of the FDR variable shows a number of -7.11, so it is negative. So the conclusion H6 is rejected, the FDR variable has no effect on NPF at BPRS in Indonesia in the period 2015 to 2024.

Based on the T Test to test the relationship partially obtained X7 prob 0.0153 <0.05, then the ROA variable has an effect on NPF. The coefficient value of the ROA variable shows a number of -0.062 so the form of a negative relationship. So the conclusion H7 is accepted, the ROA variable has a negative effect on NPF at BPRS in Indonesia in the period 2015 to 2024.

The Effect of Inequality on **Non-Performing Financing**

The results of the T-test show that the economic inequality variable has a positive effect on Non-Performing Financing (NPF) at BPRS in Indonesia during the period 2015–2024. By accepting the H1 hypothesis, it can be concluded that the greater the economic inequality in a region, the higher the level of financing problems at BPRS. This indicates a direct relationship between the level of economic inequality and the increase in the risk of problematic financing. Economic inequality creates a situation where people, especially those from the lower middle class who are the main targets of BPRS, face greater challenges in meeting their financing obligations. Income instability caused by this inequality increases the risk of default, which ultimately has an impact on the activation of NPF and has the potential to disrupt the operational stability and financial performance of BPRS as a whole.

Based on these findings, effective risk mitigation measures are needed to overcome the impact of economic inequality on NPF. One strategy that can be carried out is to diversify financing products that are more adaptive to the needs of the lower class, such as social security-based microfinance or a more flexible profit-sharing system. In addition, risk system strengthening analysis needs to be carried out to identify customers who are vulnerable to the impact of economic inequality, thus allowing earlier mitigation through financing restructuring or financial assistance. Furthermore, BPRS can also collaborate with the government and social institutions to provide economic empowerment programs that can increase income and financial stability of the target community. With these steps, BPRS can strengthen financial inclusion while reducing the negative impact of economic inequality on NPF.

The Effect of Unemployment Rate on Non-Performing Financing

Based on the results of the T-test, the unemployment rate variable has no effect on Non-Performing Financing (NPF) at BPRS in Indonesia during the period 2015–2024. This shows that H2 which states that there is an effect of the unemployment rate on NPF is not proven. This finding can be explained by the characteristics of BPRS customers, most of whom are MSME actors. This group tends not to rely too much on formal employment as their main source of income, so that the unemployment rate in the community does not directly affect their ability to

meet financing obligations. In addition, there are groups of people who, although they do not have formal jobs, still have other sources of income outside of their basic salary, which can be used to meet their financing obligations to the bank, or in real conditions, financing in BPRS cannot provide people with jobs, therefore there is no effect. This finding is in line with previous research by Nugrohowati & Bimo, (2019) and Hidayah & Meylianingrum, (2024), which shows that non-formal income plays a significant role in the financial stability of certain groups.

The implication of these results is that BPRS are less affected by fluctuations in unemployment rates in society, indicating relative resilience to labor market dynamics. However, this also shows that BPRS's dependence on the MSME sector requires risk management that is more focused on other factors, such as economic inequality or fluctuations in informal income. To that end, several strategic steps are needed, such as strengthening financing support for MSMEs through financial product innovations that are in accordance with the needs of small business actors, while increasing financial literacy so that customers are able to manage their income better. In addition, BPRS can utilize data on customers' informal income patterns to develop more targeted risk mitigation strategies. Thus, BPRS can continue to strengthen its role as an inclusive financial institution that is adaptive to the economic conditions of the community.

The Effect of GDP on Non-Performing Financing

Based on the results of the T-test, the GDP (Gross Domestic Product) variable has no effect on Non-Performing Financing (NPF) at BPRS in Indonesia during the period 2015–2024. This finding indicates that H3 is rejected, namely that GDP is not related to NPF. Although GDP reflects overall economic growth, its impact on NPF at BPRS is indirect. This can be explained by the more local operational scale of BPRS and its focus on the micro sector which tends to be less affected by national macroeconomic dynamics. BPRS is more oriented towards empowering small and medium communities whose sources of income do not always depend on macroeconomic growth. This finding is supported by research by Hidayah & Meylianingrum, (2024), Wahyudin et al., (2020), and Heny Purwaningtyas, (2020) which show that the micro sector often has different dynamics from the macroeconomic sector.

The implication of this finding is that financing risk management in BPRS should be more focused on factors that are more relevant to regional conditions and customer characteristics, such as micro income stability, MSME business conditions, and regional economic inequality. In addition, this finding also shows that national economic growth, although important, is not the only indicator that BPRS must pay attention to in managing NPF risk.

As a recommendation, BPRS can increase focus on developing financing products that are in accordance with the needs of local communities and strengthen relationships with customers through financial education and business monitoring.

In addition, BPRS can also utilize local data to strengthen risk analysis and decision-making in the financing process. With these steps, BPRS can remain relevant and resilient in supporting microeconomic growth while managing financing risks more effectively.

The Effect of CAR on Non-Performing Financing

Based on the results of the T-test, the Capital Adequacy Ratio (CAR) variable has a negative effect on Non-Performing Financing (NPF) in BPRS in Indonesia during the period 2015–2024. This finding indicates that H4 is accepted, that CAR has an effect on NPF. The interpretation of this result is that the higher the CAR owned by BPRS, the stronger the bank's ability to bear credit risk, so that it can reduce the level of problematic financing. A high CAR ratio reflects adequate capital reserve capacity, which allows banks to be more resilient to economic shocks and financing risks. This supports the role of CAR as an indicator of bank financial health that can help maintain the stability of the financial system as a whole. This result is also consistent with previous studies, such as those conducted by Auliani & Syaichu, (2016), Wibowo & Saputra, (2017), Nugrohowati & Bimo, (2019), and Wahyuni et al., (2023).

The implication of this finding is that strengthening CAR is an important aspect in BPRS risk management. By having adequate capital reserves, BPRS can be more effective in managing financing risks and maintaining financial stability, especially when facing uncertain economic conditions. In addition, this finding also shows the importance of strategic capital planning to increase BPRS resilience in supporting financing activities.

As a recommendation, BPRS needs to ensure that the CAR ratio remains at an adequate level through good capital management, including increasing core capital if necessary. BPRS can also strengthen risk management by utilizing technology to improve the accuracy of risk assessments and the quality of financing portfolios. In addition, internal supervision of financing policies must be improved to ensure prudence in financing distribution, so that the risk of problematic financing can be minimized. With these steps, BPRS can continue to maintain its financial health while supporting the stability of the financial system more broadly.

The Effect of OER on Non-Performing Financing

Based on the results of the T-test, the Operational Efficiency Ratio (OER) variable has a positive effect on Non-Performing Financing (NPF) in BPRS in Indonesia during the period 2015–2024. These results indicate that H5 is accepted, that the OER variable has an effect on NPF. so that the higher the OER ratio, which reflects low operational efficiency, the greater the risk of problematic financing in BPRS. The interpretation of these results is that high operational costs compared to the income obtained can reduce the bank's ability to manage financing effectively. Inefficiency in bank operations can hinder the credit evaluation process, financing monitoring, and handling of problematic financing risks. Conversely, when operational efficiency is

better, financing problems can be handled more effectively so that the NPF risk can be reduced. This finding is in line with research conducted by Widyawati & Djazari,(2017), which shows that operational efficiency plays an important role in maintaining the quality of bank financing.

The implication of this finding is that operational efficiency is a key factor that must be considered by BPRS in maintaining financing stability and reducing NPF risk. Operational inefficiency not only has an impact on increasing the risk of problematic financing but also on decreasing customer trust in bank performance. Therefore, efforts to improve operational efficiency are a strategic priority for BPRS.

As a recommendation, BPRS needs to manage operational costs more effectively through the use of technology to automate operational processes, such as digital-based credit assessment systems and real-time financing monitoring. In addition, improving human resource competency is also needed to ensure efficient and quality operational implementation. BPRS can also benchmark against other banks to identify best practices in managing operational efficiency. With these steps, BPRS can improve its operational efficiency so that the risk of NPF can be reduced and its financial performance can be improved.

The Effect of FDR on Non-Performing Financing

Based on the results of the T-test, the Financing to Deposit Ratio (FDR) variable has no effect on Non-Performing Financing (NPF) in BPRS in Indonesia during the period 2015–2024. These results indicate that H6 is accepted, that the FDR variable has an effect on NPF. The interpretation of these results is that although FDR reflects the bank's liquidity in funding financing needs, its impact is more significant on the profitability ratio than on the risk of problematic financing. In Islamic banks, the profit-sharing system in financing has a greater impact on profitability, so that FDR has a stronger correlation with profit performance compared to NPF. In addition, these findings also show that the ability of BPRS to manage financing risk does not entirely depend on the liquidity indicated by FDR. These results are supported by previous studies, such as those conducted by Alissanda, (2015), Isnaini et al., (2021), Soekapdjo & Tribudhi, (2020), Ahmad & Widodo, (2018), and Hapsari & Widarjono, (2023).

The implication of this finding is that financing risk management in BPRS cannot only rely on liquidity management, but must consider other more relevant factors, such as the quality of the financing portfolio and credit risk analysis. In addition, this finding also shows that although FDR is important as a liquidity indicator, BPRS must focus more on financing risk management based on the principle of prudence in distributing financing.

As a recommendation, BPRS needs to ensure that liquidity management remains optimal to support operational stability, but must also integrate deeper financing risk analysis into the decision-making process. Strengthening the financing monitoring mechanism based on sharia principles and increasing workforce

competency in risk analysis can also help reduce NPF risk. In addition, periodic evaluation of the financing portfolio can be carried out to ensure that the quality of financing is maintained. With these steps, BPRS can manage liquidity and financing risk more effectively, thereby supporting its overall financial stability.

The Effect of ROA on Non-Performing Financing

Based on the results of the T-test, the Return on Asset (ROA) variable has a negative effect on Non-Performing Financing (NPF) in BPRS in Indonesia during the period 2015–2024. These results indicate that H7 is accepted, that the ROA variable has an effect on NPF. so that the higher the ROA, the lower the NPF level, which means that the effectiveness of bank assets in generating profits has a positive impact on the quality of financing. The interpretation of these results is that high ROA reflects the efficiency of banks in utilizing their assets, most of which are in the form of financing. When financing is able to generate significant profits, the risk of problematic financing can be minimized. Conversely, low ROA reflects a lack of efficiency in financing management, which can increase the risk of NPF. This finding is consistent with the research of Muhammad et al., (2020) and Nugrohowati & Bimo, (2019), which shows that ROA plays an important role in determining the stability of financing in banking.

The implication of this finding is that increasing ROA should be one of the main focuses of BPRS to maintain financing stability. By maintaining the efficiency of asset management and increasing profitability, BPRS can mitigate NPF risk more effectively. In addition, these findings show the importance of strategic planning in managing the financing portfolio to ensure that the assets used are truly able to provide optimal results for the bank.

As a recommendation, BPRS needs to improve operational efficiency and financing management by conducting a comprehensive risk analysis before distributing financing. Training for staff related to risk management and profitability can also help improve ROA performance. In addition, BPRS can develop innovative financing products that are in accordance with market needs, which not only increase profitability but also maintain financing quality. With these steps, BPRS can maintain ROA at an optimal level, while reducing NPF risk and increasing long-term financial stability.

CONCLUSION

This study shows that non-performing financing in Islamic Rural Banks (BPRS) is influenced by various factors, both from socio-economic aspects and internal characteristics of the bank. Economic inequality and operational efficiency have a significant influence in increasing the risk of non-performing financing, while capital adequacy and profitability play an important role in reducing this risk. On the other hand, the unemployment rate, GDP, and FDR variables do not show a significant relationship with non-performing financing, indicating that the BPRS customer sector

is more focused on the local scale and the informal sector. Overall, managing these variables simultaneously is very important to maintain BPRS performance, the sustainability of financial inclusion, and support for communities that have not been reached by general banking services.

To manage the risk of non-performing financing, BPRS needs to strengthen financial inclusion programs that target the underprivileged in order to reduce economic inequality. This effort must be supported by the management of operational efficiency through technology optimization, reducing unproductive costs, and increasing employee competence. In addition, maintaining the capital adequacy ratio at an adequate level is very important so that banks can manage credit risk effectively, which can be achieved through better investment and asset management. BPRS also need to develop innovative products that can increase profitability, thereby helping to reduce the risk of problematic financing. Authorities such as OJK are expected to provide regular supervision and training for BPRS to support better risk management. Further research can be conducted to explore other factors that contribute to problematic financing, in order to provide more comprehensive insights for future strategic decision making.

REFERENCES

Ahmad, V. M., & Widodo, S. (2018). Analisis Pengaruh Gross Domestic Product (GDP), Inflasi, Financing Deposit Ratio (FDR), dan Kewajiban Penyediaan Modal Minimum (KPMM) Terhadap Non Performing Financing (NPF) pada Bank Umum Syariah di Indonesia Periode 2013-2017. *Jurnal Sains Ekonomi Dan Perbankan Syariah*, *8*(1), 30–44.

Ahmed, H. A., & Shadmani, H. (2024). Income inequality, unemployment, and government transfer: what do their dynamics tell us. *Journal of Economics and Development*, *26*(4), 274–289. https://doi.org/10.1108/JED-10-2023-0195

Akoijam, S. L. S. (2012). Rural credit: A source of sustainable livelihood of rural India. *International Journal of Social Economics*, *40*(1), 83–97. https://doi.org/10.1108/03068291311283454

Alfian Akbar, D. (2016). Inflasi, Gross Domesctic Product (GDP), Capital Adequacy Ratio (CAR), Dan Finance To Deposit Ratio (FDR) Terhadap Non Performing Financing (NPF) Pada Bank Umum Syariah Di Indonesia. *I-Economic*, *2*(2), 26–27.

Alissanda, D. G. (2015). Pengaruh Car, Bopo Dan Fdr Terhadap Non Performing Finance (Npf) Pada Bank Umum Syariah Tahun 2011-2013. In *Jurnal Prosiding keuangan & Perbankan Syariah* (Issue 2504, pp. 1–9). http://dx.doi.org/10.29313/syariah.v0i0.762

Ardana, Y. (2019). Faktor Internal, Makroekonomi dan Pembiayaan Bermasalah Bank Syariah di Indonesia. *Esensi: Jurnal Bisnis Dan Manajemen*, *9*(1), 41–56. https://doi.org/10.15408/ess.v9i1.10743

Auliani, M. M., & Syaichu. (2016). Analisis Pengaruh Faktor Internal dan Faktor Eksternal Terhadap Tingkat Pembiayaan Bermasalah Pada Bank Umum Syariah di Indonesia Periode Tahun 2010-2014. *Diponegoro Journal of Management*,

5(3), 1–14. http://ejournal-s1.undip.ac.id/index.php/dbr

Bongomin, G. O. C., Munene, J. C., Ntayi, J. M., & Malinga, C. A. (2019). Collective action among rural poor: Does it enhance financial intermediation by banks for financial inclusion in developing economies? *International Journal of Bank Marketing*, *37*(1), 20–43. https://doi.org/10.1108/IJBM-08-2017-0174

Devi, S., & Juniwati, H. (2024). Pengaruh Produk Domestik Bruto, Inflasi, dan Tingkat Pengangguran terhadap Non-Performing Financing pada BUS di Indonesia dengan Metode ARDL. *Journal of Applied Islamic Economics and Finance*, *4*(3), 346–358. https://doi.org/10.35313/jaief.v4i3.6008

Elliyana, E., Bachtiar, I. H., Ramadani, D. P., & Rabia, A. B. (2020). Effect of Financing to Deposit Ratio (FDR) and of Financing To Asset Ratio (FAR) Against Non-Performing Financing (NPF) at the Branch Office of Bank Rakyat Indonesia Syariah Makassar. *International Journal of Business Education and Management Studies (IJBEMS)*, *5*(2), 178–186.

Fransiska, Y., & Siregar, P. A. (2023). The Analysis of Macroeconomic and Microeconomic Factors in Non-Performing Financing of Sharia Bank in Indonesia. *Ekonomi, Keuangan, Investasi Dan Syariah (EKUITAS)*, *4*(4), 1128–1136. https://doi.org/10.47065/ekuitas.v4i4.3250

Ginting, A. M. (2017). Pengaruh Makroekonomi Terhadap Non Performing Loan (Npl) Di Indonesia: Studi Non Performing Loan Perbankan. *Jurnal Ekonomi Dan Kebijakan Publik*, *7*(2), 159. https://doi.org/10.22212/jekp.v7i2.669

Hamda, I., & Nurasri Sudarmawan, B. (2023). Capital, Efficiency, Management Risk on Islamic Bank Stability During Covid-19 PandemiC. *Tazkia Islamic Finance and Business Review*, *17*(1), 36–55. https://doi.org/10.30993/tifbr.v17i1.309

Hapsari, P. N., & Widarjono, A. (2023). Diversifikasi pembiayaan dan pengaruh Covid-19 terhadap Non Performing Financing (NPF) di Provinsi Jawa Barat Indonesia. *Jurnal Kebijakan Ekonomi Dan Keuangan*, *2*(1), 36–49. https://doi.org/10.20885/jkek.vol2.iss1.art5

Heny Purwaningtyas, U. H. (2020). pengaruh GDP, INFLASI, KURS, CAR, FDR, FINANCING BANK SIZE TERHADAP NPF PERBANKAN SYARIAH DI INDONESIA TAHUN 2014-2017. *Jurnal Ilmu Manajemen (JIM)*, *8*(21), 352–367.

Hidayah, A. N., & Meylianingrum, K. (2024). Macroeconomic Impact on Non-Performing Financing in Islamic Banking in 2011-2021. *Al-Intaj : Jurnal Ekonomi Dan Perbankan Syariah*, *9*(2), 280. https://doi.org/10.29300/aij.v9i2.2461

Hosen, M. N., & Muhari, S. (2019). Non-performing financing of Islamic rural bank industry in Indonesia. *Banks and Bank Systems*, *14*(1), 20–28. https://doi.org/10.21511/bbs.14(1).2019.03

Isnaini, L., Haryono, S., & Muhdir, I. (2021). Pengaruh ROA, CAR, BOPO, FDR, Dan Inflasi Terhadap Pembiayaan Bermasalah (NPF) Di Bank Umum Syariah. *JPEK (Jurnal Pendidikan Ekonomi Dan Kewirausahaan)*, *5*(1), 65–75. https://doi.org/10.29408/jpek.v5i1.3095

Khoiriyah, D. N., & Amalia, F. (2023). Dampak inklusi dan literasi keuangan terhadap ketimpangan pendapatan melalui kredit UMKM di Indonesia tahun 2016 dan

2019. *Jurnal Riset Ekonomi Dan Bisnis*, *16*(1), 16. https://doi.org/10.26623/jreb.v16i1.6303

Kuncoro, M. (2019). *Ekonomika regional: teori dan aplikasi*. Rajawali Press: Jakarta.

Kusuma, M., Narulitasari, D., & Nurohman, Y. A. (2022). Inklusi Keuangan Dan Literasi Keuangan Terhadap Kinerja Dan Keberlanjutan Umkm Disolo Raya. *Among Makarti*, *14*(2).

Lal, T. (2019). Measuring impact of financial inclusion on rural development through cooperatives. *International Journal of Social Economics*, *46*(3), 352–376. https://doi.org/10.1108/IJSE-02-2018-0057

Lusiana, E. D., Pramoedyo, H., & Sudarmawan, B. N. (2022). Spatial Quantile Autoregressive Model: Case Study of Income Inequality in Indonesia. *Sains Malaysiana*, *51*(11), 3795–3806. https://doi.org/10.17576/jsm-2022-5111-23

Miranti, T., & Oktaviana, U. K. (2022). Effect of Capital Structure on Financial Sustainability of Sharia Public Financing Bank (BPRS). *Ad-Deenar: Jurnal Ekonomi Dan Bisnis Islam*, *6*(01), 137. https://doi.org/10.30868/ad.v6i01.2301

Muhammad, R., Suluki, A., & Nugraheni, P. (2020). Internal factors and non-performing financing in Indonesian Islamic rural banks. *Cogent Business and Management*, *7*(1). https://doi.org/10.1080/23311975.2020.1823583

Nindita, D. R. (2015). KETERKAITAN INFLASI, SUKU BUNGA KREDIT, DAN TINGKAT PENGANGGURAN TERHADAP KREDIT BERMASALAH PADA BANK UMUM DI INDONESIA. *Jurnal Ilmiah Mahasiswa FEB*, *Vol. 3 No. 2*, 19.

Nugrohowati, R. N. I., & Bimo, S. (2019). Analisis pengaruh faktor internal bank dan eksternal terhadap Non-Performing Financing (NPF) pada Bank Perkreditan Rakyat Syariah di Indonesia. *Jurnal Ekonomi & Keuangan Islam*, *5*(1), 42–49. https://doi.org/10.20885/jeki.vol5.iss1.art6

Nur'aisyah, I., Dora, L. S., Kholishoh, & Aziz, A. (2020). Peran Bank Pembiayaan Rakyat Syariah (Bprs) Dalam Pengembangan Umkm Di Indonesia. *INKLUSIF : Jurnal Pengkajian Penelitian Ekonomi Dan Hukum Islam*, *5*(2), 114–126. www.syekhnurjati.ac.id/jurnal/index.php/inklusif

Papadopoulos, G. (2019). Income inequality, consumption, credit and credit risk in a data-driven agent-based model. *Journal of Economic Dynamics and Control*, *104*, 39–73. https://doi.org/10.1016/j.jedc.2019.05.002

Priyadi, U., Utami, K. D. S., Muhammad, R., & Nugraheni, P. (2021). Determinants of credit risk of Indonesian Sharīʿah rural banks. *ISRA International Journal of Islamic Finance*, *13*(3), 284–301. https://doi.org/10.1108/IJIF-09-2019-0134

Putri, L. T., & Sudarmawan, B. N. (2023). *MACROECONOMIC OUTLOOK AND BANK STABILITY : THE CASE OF*.

Rifa'i, A. (2017). The Role of Islamic People's Financing Banks in Implementing Inclusive Finance Through MSME Financing. *Human Falah*, *4*(2), 194–217.

Shihadeh, F., & Liu, B. (2019). Does financial inclusion influence the banks risk and performance? Evidence from global prospects. *Academy of Accounting and Financial Studies Journal*, *23*(3).

Soekapdjo, S., & Tribudhi, D. A. (2020). Pengaruh faktor eksternal dan internal terhadap kredit bermasalah perbankan konvensional di indonesia. *Kinerja*, *17*(2), 278–286.

Sri Hartati, Y. (2021). Analisis Pertumbuhan Ekonomi Inklusif Di Indonesia. *Jurnal Ekonomi Dan Bisnis*, *12*(1), 79–92. https://doi.org/10.55049/jeb.v12i1.74

Sudarsono, H. (2018). ANALISIS PENGARUH VARIABEL MIKRO dan MAKRO TERHADAP NPF PERBANKAN SYARIAH di INDONESIA. *Equilibrium: Jurnal Ekonomi Syariah*, *6*(1), 1. https://doi.org/10.21043/equilibrium.v6i1.3040

Wahyudin, M. W., Novianty, I., & Burhany, D. I. (2020). *The Effect of Economic Condition and Banking Policy on Non-Performing Financing and Profitability: Evidence from Islamic Rural Banks in Indonesia*. *198*(Issat), 545–551. https://doi.org/10.2991/aer.k.201221.090

Wahyuni, A. S., Hadiani, F., Laksana, B., & Barnas, B. (2023). Pengaruh Faktor Makroekonomi dan Faktor Spesifik Bank terhadap NPF Bank Umum Syariah di Indonesia. *Journal of Applied Islamic Economics and Finance*, *3*(2), 216–224. https://doi.org/10.35313/jaief.v3i2.3729

Wibowo, S. A., & Saputra, W. (2017). Pengaruh Variabel Makro Dan Mikro Ekonomi Terhadap Pembiayaan Bermasalah Pada Bank Syariah Di Indonesia. *Jurnal Ilmiah Akuntansi*, *2*(1), 96–112. https://doi.org/10.23887/jia.v2i1.10040

Widyawati, G. N., & Djazari, M. (2017). Pengaruh Capital Adequacy Ratio (CAR), Non Performing Financing (NPF), Operational Efficiency Ratio (OER), Penyisihan Penghapusan Aktiva Produktif (PPAP) Dan Net Operating Margin (NOM) Terhadap Profitabilitas Pada Bank Umum Syariah Periode 2010-2015. *Jurnal Profita*, *2*(1), 1–12.

Yolanda, S., & Ariusni, A. (2019). Pengaruh Faktor Internal Dan Eksternal Terhadap Pembiayaan Bermasalah Pada Bank Umum Syariah (Bus) Dan Bank Pembiayaan Rakyat Syariah (Bprs). *Jurnal Kajian Ekonomi Dan Pembangunan*, *1*(3), 833. https://doi.org/10.24036/jkep.v1i3.7710