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DETERMINANTS OF PROFITABILITY OF SHARIA PEOPLE'S FINANCING BANKS IN INDONESIA

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Abstract

The success of banking is reflected in its profitability, which is the result of all the activities and operations of banking companies that have been running. Financial reports can provide an overview of the level of profitability achieved by banking companies. This study aims to test howthe influence of CAR, liquidity, efficiency, credit risk, and bank size on the profitability of Islamic People's Financing Banks (BPRS) registered with OJK duringperiod 2018-2021. The research method is quantitative with secondary data. PSample determination was carried out using a purposive sampling method, the research sample criteria were (a) BPRS registered with the OJK, (b) BPRS that had a complete report for 2018 - 2021 and sent it to the regulator (OJK) and a positive ROA.The research analysis tool uses Eviews with the methodselection is the Random Effect Model (REM). The research results show that BOPO, credit risk, bank size and Covid control have a negative effect on profitability, while CAR and FDR have no effect. In the f-test the feasibility of the panel data equation model, the sig value. 0.000 meansCAR, FDR, BOPO, NPF and Assets as well as the Covid control variable together have a significant effect on the profitability variable. Determination test resultsR^2 of0.856862, meaning that ROA is influenced by the variables CAR, FDR, BOPO, NPF, and Assets as well as the covid control variable of 85.69%, while the remaining 14.31% is influenced by other factors outside of these variables.

Keywords: *BOPO, CAR, FDR, NPF, ROA, bank size*

INTRODUCTION

Based on “Banking Law no. 7 of 1992” as amended by “UU no. 10 of 1998 ", defines a bank as a business entity for the community in raising funds both as savings and then channeling them back as credit and in efforts to improve living standards. In this law there is a grouping of banks consisting of two types, namely Rural Banks (BPR) which carry on business as usual or based on Islamic Sharia principles which do not offer payment transaction services, and commercial banks which carry out their business activities as usual and/or based on sharia principles and provides services by charging fees in its business activities. BPR business includes collecting funds from general consumers in the form of savings, time deposits and/or other forms, providing credit,

In providing credit or financing based on sharia principles, commercial banks must have confidence based on an in-depth analysis of the intention and ability of debtor customers to pay their debts or pay off financing in accordance with what has been agreed. This also applies to Islamic People's Financing Banks (BPRS). BPRS must also implement sharia-based financing and financial policies in accordance with the provisions mandated. The maximum limit for granting credit or financing based on sharia principles according to Bank regulations may not exceed 30% (thirty percent) of capital and not more than 10% if given to shareholders and their families, interests. greater than 10% of the paid-up capital of

the bank, its management and their families, employees of other banks and companies with interests in the parties mentioned above.

The Risk Profile Assessment is an assessment of the inherent risks in BPRS operations and the quality of risk management implementation for six types of risk, namely Credit Risk, Operational Risk, Compliance, Liquidity, Reputation and Strategic. The ratio of non-performing loans or Non-Performing Financing (NPF) is a metric used to measure a bank's non-performing loans. In Islamic banking, financing is the main revenue-generating function of the bank. The greater the funding compared to the savings or deposits of the public at the bank, the greater the risk for the bank. The risk borne by BPRS is the provision of troubled financing or in Islamic banking as NPF (Nugrohowati & Bimo, 2019).

Based on the OJK announcement, the BPR and BPRS sectors are sectors that have continued to show positive performance despite the pressure due to the COVID-19 pandemic. This development is reflected in the increase in Third Party Funds (DPK) for BPRS financing since the beginning of the COVID-19 pandemic and early March 2020. BPRS recorded ROA and BOPO ratios of 1.73% and 87.63% respectively in December 2021.

Table 1 Average CAR, BOPO, NPF, FDR, Total Assets, ROA BPRS 2018-2021

Year	CAR (%)	FDR (%)	BOPO (%)	NPF (%)	Total Assets (Million Rp)	ROA (%)
2018	19.33	111.67	87.66	9.30	12,361,734	1.87
2019	17.99	113.59	84.12	7.05	13,934,139	2.61
2020	28,60	108.78	87,62	7,24	14,943,967	2.01
2021	23.79	103,38	87.63	6.95	17,059,911	1.73

Source: OJK Sharia Banking Statistics for 2019-2022

Table 1 shows that the CAR ratio decreased in 2021 compared to 2020. The NPF ratio improved, although it decreased in 2020 compared to 2019, to reach 6.95% at the end of 2021. BPRS ROA decreased from 2020 and 2021, even when total assets increase. Performance declined in 2020 and 2021 in line with BOPO growth. The ideal FDR is based on SEOJK "NUMBER 10/SEOJK.03/2019" concerning "Application of Risk Management in Sharia Financial Banks" for rank 1 (one) no more than 90%.

LITERATURE REVIEW

This research focuses on the influence of CAR, liquidity, efficiency, credit risk and bank size on BPRS profitability with the Covid-19 pandemic as a control variable. Several previous studies have shown that Islamic commercial banks are more profitable than conventional commercial banks (Kakakhel et al., 2013) ;(Erol et al., 2014) ;(Khediri et al., 2015; Ramlan & Adnan, 2016; Salman & Nawaz, 2018). Research result (Amalia & Nugraha, 2021; Haddad, 2022; Handayani et al., 2021; Khalifaturofi'ah, 2021; Siddique et al., 2022) states that profitability is positively and significantly influenced by CAR. While the research results (Munir, 2018; Permatasari & Filianti, 2020b; Sutrisno & Widarjono, 2022) states that bank CAR has no effect on profitability. Several studies found a negative

effect between efficiency and profitability (Chabachib et al., 2019; Handayani et al., 2021; Khalifaturofi'ah, 2021; Siddique et al., 2022; Sutrisno & Widarjono, 2022) while research results (Hosen et al., 2019) states that profitability is significantly positively influenced by efficiency and research results (Permatasari & Filianti, 2020b); reveals a different thing, namely that efficiency has no effect on profitability. Research result (Aliu & Çollaku, 2021; Amalia & Nugraha, 2021; Chabachib et al., 2019; Handayani et al., 2021; Khalifaturofi'ah, 2021; Siddique et al., 2022; Sutrisno & Widarjono, 2022) which found a significant and negative influence between low quality of financing and profitability. Meanwhile, research results (Permatasari & Filianti, 2020) state that profitability is not influenced by financing and research results (Munir, 2018) states that profitability is positively affected by NPF. Empirical studies conducted on Islamic banks show that bank size has a positive impact (Aliu & Çollaku, 2021; Chabachib et al., 2019; Haddad, 2022; Siddique et al., 2022; Sutrisno & Widarjono, 2022) or negative (Aremu et al., 2013) on bank profitability.

Based on several studies showing differences in research results between one researcher and another researcher, phenomena related to CAR, Liquidity, Efficiency, Credit Risk, and Bank Size to Profitability are still found, thus encouraging researchin banks with a smaller scale, namely BPRS in Indonesia. These findings become a reference in solving the problems that will be examined in order to identify the solutions needed.

Stewardship Theory

Stewardship Theoryis a theory that explains that managers are in a situation that is not caused by individual or self-goals but rather by the end result, namely the public or organizational interests. This theory designs executives as stewards to take action according to the wishes of the principal and try to achieve organizational goals. This theory is intended for researchers to conduct condition tests on executives in companies so that they can perform in a way that is superior to their principals (Donaldson & Davis, 1989, 1991).

Profitability

Profitability is a benchmark in determining the amount of profit and to find out whether a business unit has been running efficiently. A new business is said to be efficient after comparing the profits obtained with the assets/capital in generating profits. (Syamsudin & Lukman, 2000) states that "profitability is the ability of a company to earn profits related to sales, total assets and long-term debt". Profitability is the ability to generate profit for a company.

Returnon Assets (ROA)

Profitability is used to describe a company's financial performance which can be measured through Return on Assets (ROA) which is influenced by the number of assets (Hahn & Kühnen, 2013). In banking, profitability is part of profitability (earnings) which can be measured through ROA.

The formula for calculating ROA profitability:

$$\text{ROA} = \frac{Profit\ Before\ Tax}{Average\ Total\ Assets}$$

Non-Performing Financing (NPF)

Proxies in non-qualified financing, commonly referred to as NPF, can be calculated from the amount of non-performing financing or non-quality one financing compared to all BPRS financing. Problematic financing consists of bad, doubtful and KL (substandard) financing. Formula to calculate:

$$NPF = \frac{Problematic\ Credit}{Total\ Credit}$$

Efficiency or Operational Costs Operating Income (BOPO)

Assessment of the condition of the BPR and BPRS and their ability to obtain profit or profit in supporting operational and capital activities so that they can be adequate and sustainable which includes evaluating the level of operational efficiency of the BPRS and evaluating profitability performance. By taking into account the level, structure, profitability stability, trends, and/or comparison of BPRS performance with industry performance, the profitability factor assessment is carried out.

Organizations, in this case banks whose BOPO is smaller, show better efficiency in managing operational costs and smaller ratios, the smaller the operational costs spent by a bank, it is stated that the bank is efficient. (Herdinigtyas & Almilia, 2005). Formula used:

$$BOPO = \frac{Operating\ Costs}{Operating\ Income}$$

Formula Problem

Table 1 explains the development of the CAR ratio which decreased in 2021 compared to 2020. The NPF ratio improved even though it weakened in 2020 compared to 2019 until it reached 6.95% at the end of 2021. BPRS ROA decreased from 2020 to 2021 even though total assets increased. Efficiency decreases in 2020 and 2021 with an increase in BOPO and there are still differences in research results.

Effect of KPMM or Capital Adequacy Ratio (CAR) on Profitability

In measuring capital adequacy, it is proxied by CAR. A higher CAR in a BPRS indicates that the greater the BPRS is channeling financing with increased profitability and greater capital adequacy.

Agentnamely the management must try to increase CAR so that profitability increases. According to stewardship theory (Donaldson & Davis, 1989, 1991), stewards maximize CAR to generate profits for the bank and channel financing. Formulated hypothesis:

H1: CAR has a positive effect on the profitability of BPRS in Indonesia

Effect of Liquidity (FDR) on Profitability

FDR or Financing to Deposit Ratio is a measurement of the amount of funds collected from residents or the general public by banks, which are placed in the form of financing. The greater the funds collected from the public, the greater the bank's channeling of financing to the community so that the profit earned by the bank increases.

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Agentis the management party, trying to increase FDR so that there is an increase in profitability. Based on stewardship theory (Donaldson & Davis, 1989, 1991), stewards maximize FDR to be able to channel funds to customers to generate profits for the BPRS in the form of financing. Formulated hypothesis:

H2: FDR has a positive effect on the profitability of BPRS in Indonesia

The Effect of Efficiency on Profitability

BOPO is a measure of efficiency based on operational expenses compared to operating income. The lower the BOPO percentage, the more BPRS is declared capable of operating its operational activities effectively and efficiently. Operating expenses are less than operating income, so BPRS can generate operating income at lower or lower costs.

Agentis the management that strives for the bank to be efficient by earning income and reducing its operational costs. Based on stewardship theory (Donaldson & Davis, 1989, 1991), stewards protect and make bank operational expenses more efficient and revenue gain can be allocated in channeling funds to consumers in the form of financing (financing) in order to increase profits for the bank. Formulated hypothesis:

H3: BOPO has a negative effect on ROA.

The Effect of Credit Risk on Profitability

NPF is a measure of credit risk experienced by a bank. The lower or smaller the NPF, the less credit risk will be borne by the BPRS. If the NPF owned by a bank is high, it indicates that the level of risk for extending credit to that bank is quite high in line with the high NPF faced by the bank. (Riyadi, 2006), meaning that credit management is unprofessional so that credit risk with NPF has a negative effect on profitability (ROA). A high NPF will result in a decrease in profitability (ROA), this indicates a decline in the bank's financial performance as a result of greater credit risk. If there is a decrease in NPF, it will result in an increase in profitability (ROA) so that the achievement or performance of the bank will get better. Non-performing loans will affect the bank's ability to obtain profitability. The formulated hypothesis:

H4: Credit risk has a negative effect on ROA

Effect of Bank Size (Size) on Profitability

Bank size is indicated by total assets, the larger the bank size means the higher the total assets and the greater the bank's ability to carry out financing which will ultimately have an effect on increasing its profitability.

Agentis the management that seeks to be able to increase Total Assets in order to increase profitability. Based on stewardship theory (Donaldson & Davis, 1989, 1991), stewards protect and maximize total assets to be able to distribute financing which will ultimately generate profits for the bank. Formulated hypothesis:

H5: Bank size has a positive effect on profitability in BPRS in Indonesia.

Based on the formulation of the problem, the following is the framework:

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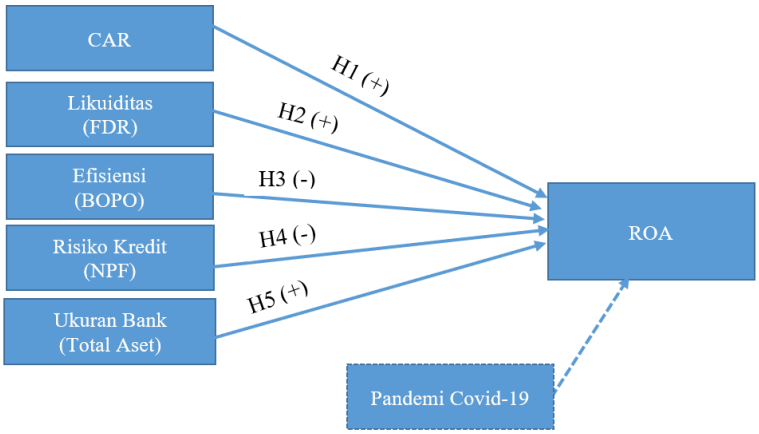

Figure 1 Framework of Thought

METHOD

Research Design

This research uses a quantitative approach, which means that the data to be obtained are numbers and the analysis is carried out using statistics. Use of data types in the form of secondary data.

Population & Sample

Population is a group or whole data with similar criteria. (Cooper & Schindler, 2014) states that "The population is a set of elements made with several conclusions". The research population is Sharia People's Financing Banks (BPRS) in the period 2018 to 2021 and a total of 164 BPRS are registered with the OJK.

Samples based on certain numbers and criteria represent the population so that they can be studied, in order to describe the population in general (Cooper & Schindler, 2014). Purposive sampling is used in research for sampling. The research sample parameters are:

BPRS registered with OJK

BPRS which has a complete report from 2018 to 2021 and sends it to the regulator (OJK) and has positive profitability (ROA).

Research variable

The variables used in the research consist of CAR, Efficiency, Liquidity, Bank Size, and Credit Risk as independent variables. The Covid-19 pandemic is the control variable, and profitability as the dependent variable.

Analysis Techniques

Data analysis techniques in looking at the correlation between variables include three regression models, namely the Common Effect Model (CEM), Fixed Effect Model (FEM), and Random Effect Model (REM). CEM is a model commonly referred to as pooled last square (PLS), namely a model that combines all cross-section and time-series data. (Gujarati, 2013).

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The regression equation with control variables (Covid-19 pandemic), can be written as follows:

$$Y = \alpha + \beta1X1 + \beta2X2 + \beta3X3 + \beta4X4 + \beta5X5 + \beta6X6 + \varepsilon$$

Information:

Y	=	ROA
α	=	Constant
β	=	Regression coefficient
X1	=	CAR
X2	=	FDR
X3	=	BOPO
X4	=	NPF
X5	=	Bank Size
X6	=	Covid 19 pandemic (control variable)
ε	=	Error

RESULTS AND DISCUSSION

General Description of Research Objects

In this study, we took a sample of 56 BPRS from the OJK for a 4-year period (2018-2021) from a population of 167 BPRS, based on data availability with the criteria of having an annual report containing CAR, ROA, BOPO, NPF, FDR and Total Assets data.

Descriptive Data

The research variables used are CAR, Liquidity (FDR), Efficiency (BOPO), Credit Risk (NPF), Bank Size (Total Assets) as the independent variable, profitability (ROA) as the dependent variable, and the Covid Pandemic as the control variable.

Table 2 Descriptive Statistics of Research Sample

	CAR	FDR	BOPO	NPF	Total Assets	ROA
MAX	198.21	522.83	97.01	34.67	9,15	7,62
min	9.59	41,10	55,49	0.63	7.01	1.13
MEANS	28.44	122.73	81.02	5,47	7.85	3,32
STDDEV	21.59	57,94	7,21	3.96	0.43	1.53
N	224	224	224	224	224	224

Source: OJK Published Data

CAR is used to measure the capital adequacy of an SRB, based on Table 2 for the highest value, namely 198.21PT. BPRS Amanah Rabbaniahin 2019 and the lowest value was 9.59, namely PT BPRS Kotabumi (Perseroda) in 2019. The average was 28.44 with a variation of 21.59.

FDR is used to measure the liquidity of an SRB, based on Table 2 for the highest value, namely 522.83PT BPRS Tani Tulang Bawang Barat (Perseroda)in 2021 and the lowest value

was 41.10, namely PT BPRS AL MABRUR KLATEN in 2020. The average was 122.73 with a variation of 57.94.

BOPO is used to measure the efficiency of a BPRS, based on Table 2 for the highest value, namely 97.01PT BPRS Attaqwain 2019 and the lowest score is 55.49, namely PT. BPRS Lantabur Tebuireng in 2019. The average is 81.02 with a variation of 7.21.

The NPF used to measure credit risk is a comparison of non-performing financing to total financing, based on Table 2 for the highest score of 34.67, namelyPT BPRS AL MABRUR KLATENin 2019 and the lowest value was 0.63, namely PT BPRS Lampung Barat in 2018. The average was 5.47 with a variation of 3.96.

Total Assets is used to measure the size of the bank, based on Table 2 for the highest value i.e., 9.15PT BPRS Harta Insan Karimah Parahyanganin 2019 and the lowest score is 7.01, namely PT. BPRS Annisa Mukti in 2018. The average is 7.85 with a variation of 0.43.

ROA is used for BPRS profitability, based on Table 2 for the highest value i.e., 7.62PT BPRS Rajasa Central Lampung (Perseroda)in 2019 and the lowest score was 1.13, namely PT BPRS AL MABRUR KLATEN in 2020. The average was 3.32 with a variation of 1.53.

Outliersaccording to (Klienbaum et al., 2007), is a rare or unusual observatory that occurs at one of the extremes of most data. Outlier tests have been carried out to remove data with unit characteristics that look very different from other extreme data observations. Outlier testing is carried out using Standardized Residuals because the data is not affected by the unit of measure (standardized), where the residual is 2.5 times greater than the standard deviation.

Table 3 Sample Selection and Data Outlier Process

No	Criteria	Amount of data
1.	Number of BPRS Registered at OJK for the 2018-2021 period	156
2.	Availability of annual reports containing CAR, ROA, BOPO, NPF, FDR and Total Assets for the 2018-2021 period	156
3.	Number of BPRS with negative profitability	(75)
4.	Number of outliers (using eviews)	(25)
5.	Number of BPRS after fulfilling the criteria	56
6.	Number of observation/sample data (2018-2021 period)	224

Data Computing Process

Regression Model Selection

In terms of selecting three regression models including the Common Effect Model (CEM), Fixed Effect Model (FEM), and Random Effect Model (REM), the regression model selection test was carried out using the Chow Test, Hausman Test and Lagrange Multiplier Test.

Chow test

The Chow test aims to test whether panel data is more suitable using the Fixed Effect Model or the Common Effect Model. The test was carried out using the Eviews software.

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The Chow Test conclusions are as follows:

1. If the Probability F value > 0.05 means that H0 is accepted; then the model chosen is Common Effect.
2. If the Probability F value <0.05 means H0 is rejected; then the model chosen is Fixed Effect, followed by the Hausman Test.

Table 4 Chow Test Output

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

Effects Test	Statistic	d.f.	Prob.
Cross-section F	11.417967	(55,162)	0.0000
Cross-section Chi-square	354.910455	55	0.0000

The Chow test results in table 4 are produced with a significance level of 5% with a probability F value of 0.0000 (<5%) so that it can be concluded that the correct model to use is the Fixed Effect Model and followed by the Hausman Test.

Hausman test

The Hausman test aims to test whether panel data is more suitable using the Fixed Effect Model or Random Effect Model. The test was carried out using Eviews software.

The conclusion of the Hausman Test is as follows:

1. If the Chi-Square probability value is > 0.05, then H0 is accepted, which means the model chosen is Random Effect.
2. If the Chi-Square probability value is <0.05, then H0 is rejected, which means the model chosen is Fixed effect.

Table 5 Hausman Test Output

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

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	4.109489	6	0.6619

The Hausman Test results in table 5 were produced at a significance level of 5% with a Chi-Square probability value of 0.6619 (>5%) so that the conclusion that H0 was accepted was accepted, while the appropriate model to use was the Random Effect Model.

Lagrange Multiplier Test

The LM test aims to test whether panel data is more suitable using the Common Effect Model or Random Effect Model and testing is carried out using Eviews software.

The conclusions of the Lagrange Multiplier Test with the Breusch-pagan Both (BPG) probability values are as follows:

1. If the BPG probability value is > 0.05, then H0 is accepted, which means the Common Effect model.
2. If the BPG probability value is <0.05, then H0 is rejected, which means the Random Effect model.

Table 6 Lagrange Multiplier Test Output

	Test Hypothesis		
	Cross-section	Time	Both
Breusch-Pagan	168.1366 (0.0000)	2.016354 (0.1556)	170.1530 (0.0000)
Honda	12.96675 (0.0000)	-1.419984 (0.9222)	8.164798 (0.0000)
King-Wu	12.96675 (0.0000)	-1.419984 (0.9222)	1.566248 (0.0586)
Standardized Honda	13.53299 (0.0000)	-0.999493 (0.8412)	4.242312 (0.0000)
Standardized King-Wu	13.53299 (0.0000)	-0.999493 (0.8412)	-0.629775 (0.7356)
Gourieroux, et al.	--	--	168.1366 (0.0000)

The results of the Lagrange Multiplier test in table 6 produce a significant level of 5% with a BPG probability of 0.0000 (<5%) so that it can be concluded that H0 is rejected, while the appropriate model to use is the Random Effect Model.

After the Chow test, Hausman test and Langrange multiplier test have been carried out to find out the best model among themCommon Effect Model, Fixed Effect Modeland Random Effect Model, it is concluded that the best regression model is the Random Effect Model.

Classic assumption test

According to the Gauss-Markov theorem (Gujarati, 2013)a good regression is one that meets the BLUE (Best Linear Unbiased Estimator) requirements, namely a linear regression model that has a residual close to zero, does not have the same correlation and variance, is linear and consistent. To meet the BLUE requirements, a classic assumption test is carried out which consists of a normality test, multicollinearity test, autocorrelation test, and heteroscedasticity test.

Normality test

This test is carried out to evaluate the residual value of regularly distributed research data (Ghozali, 2013). A good model is a model that shows a normal distribution. Then the Jarque-Bera normality test is used, and if the significance value is more than 0.05, the data condition is said to be normal.

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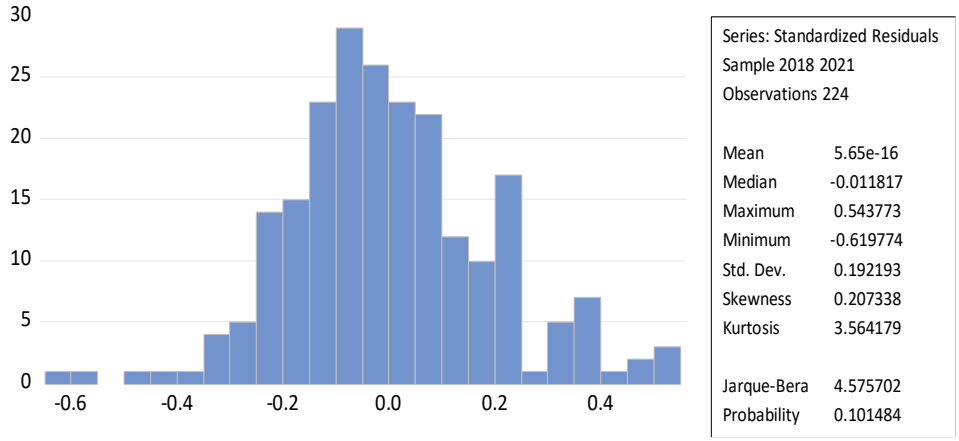

Figure 2 Normality Test Results

The results of the test in Figure 2 with a significance level of 5%, the probability value is 0.101484 (sig value > α) so it can be concluded that the residual data from the random effect panel data regression is normally distributed.

Multicollinearity Test

The correlation of the independent variables in the regression research model can be determined using this multicollinearity test. This tests a perfect linear relationship between independent variables, according to (Ghozali, 2013).

Table 7 Multicollinearity Test Results

	CAR	FDR	BOPO	NPF	ASSET	COVID
CAR	1,000000	0.073543	-0.06602	-0.01346	-0.19644	0.047504
FDR	0.073543	1,000000	-0.13328	-0.16429	-0.16102	-0.060921
BOPO	-0.06603	-0.13328	1,000000	0.28640	-0.22249	0.109759
NPF	-0.01346	-0.16429	0.286400	1,000000	-0.33379	-0.155996
ASSET	-0.19644	-0.16102	-0.22249	-0.33379	1,000000	0.132031
COVID	0.047504	-0.06092	0.109759	-0.15599	0.132031	1,000000

From the output of table 7 above, it can be seen that there is no collinearity value between the independent variables which is above 0.85 so that it can be said that the regression model does not have multicollinearity.

Autocorrelation Test

According to (Ghozali, 2016), The autocorrelation test is carried out to test whether there is a correlation between residuals in a certain period with the previous period. The test was carried out through the Durbin-Watson test with a Durbin-Watson stat test result of 1.905388.

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Table 8 Autocorrelation Test Results

Weighted Statistics			
R-squared	0.856836	Mean dependent var	0.313722
Adjusted R-squared	0.852877	S.D. dependent var	0.262250
S.E. of regression	0.100590	Sum squared resid	2.195689
F-statistic	216.4568	Durbin-Watson stat	1.905388
Prob(F-statistic)	0.000000		

Based on the results of the Durbin-Watson test of 1.905388, this value was then compared with dl and du. The values of dl and du can be seen from the Durbin-Watson table with parameters α = 5%, n = amount of data, and K = number of independent variables. Then found the value dl = 1.72348 and the value du = 1.83543, with the value K = 6 and n = 224. Thus, after calculating and comparing with the Durbin-Watson table, that the observed Durbin-Watson value is 1.905388, it can be concluded that the results of this study are free from autocorrelation problems.

Heteroscedasticity Test

Heteroscedasticity test is used to test whether in a regression model there are similarities or differences in variance between one observation and another. The statistical test used is the Glejser test through regression of the absolute residual value with the independent variables to determine whether the pattern of disorder variables contains heteroscedasticity or not. The sig value is compared to 0.05.

Table 9 Heteroscedasticity Test Results (Glejser Test)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.071897	0.311154	-0.231067	0.8175
CAR	-0.000108	0.000345	-0.313461	0.7542
FDR	4.03E-06	0.000200	0.020207	0.9839
BOPO	8.65E-05	0.001420	0.060934	0.9515
NPF	-0.000822	0.002177	-0.377591	0.7061
ASET	0.029447	0.033299	0.884347	0.3775
COVID	-0.024123	0.012314	-1.959028	0.0514

Based on the results of the heteroscedasticity test via the Glejser Test, it can be seen that all independent variables have a significance value of Prob. more than 0.05. So it can be concluded that there is no heteroscedasticity in the regression model in this research model.

Hypothesis test

This test is carried out through statistical procedures to test research questions so that research conclusions are drawn from the influence of the independent variables and control variables on the dependent variable.

Simultaneous Effect Significance Test (F Test)

The F statistical test aims to test whether all independent variables together have a significant influence on the dependent variable.

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Table 10 F Test Results

R-squared	0.856862	Mean dependent var	0.312617
Adjusted R-squared	0.852905	S.D. dependent var	0.262075
S.E. of regression	0.100514	Sum squared resid	2.192356
F-statistic	216.5041	Durbin-Watson stat	1.910378
Prob(F-statistic)	0.000000		

From table 10 it is known that the F-prob value is 0.000000, with a significance of 5% it is concluded that the existence of the CAR, FDR, BOPO, NPF and Asset variables as well as the Covid control variable together have a significant effect on the profitability variable.

Significance Test of Partial Influence (T Test)

T-test was conducted to determine the significance of the effect of each independent variable on the dependent variable. The basis for decision making is as follows:

If Sig < α: 0.05 then Ha is accepted, Ho is rejected

If Sig > α: 0.05 then Ha is rejected, Ho is accepted

Table 11 T test results

No Control Variables

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	8.363564	0.471500	17.73819	0.0000
LOG(CAR)	-0.032576	0.021959	-1.483476	0.1394
FDR	0.000386	0.000295	1.311393	0.1911
BOPO	-0.061567	0.001912	-32.20448	0.0000
NPF	-0.002874	0.002863	-1.003871	0.3166
ASET	-0.281148	0.051379	-5.472080	0.0000

With Control Variables

Variable	Coefficient	Std. Error	t-Statistic	Prob.	
C	7.272466	0.501025	14.51519	0.0000	
LOG(CAR)	-0.001502	0.021555	-0.069704	0.9445	
FDR	0.000278	0.000286	0.973304	0.3315	
BOPO	-0.058579	0.001908	-30.70031	0.0000	**
NPF	-0.005308	0.002760	-1.922991	0.0558	***
ASET	-0.176453	0.054063	-3.263819	0.0013	**
COVID	-0.091953	0.015775	-5.828983	0.0000	**

Where **, *** are significant levels 5%, 10%

Determination Coefficient Analysis (R Squared Test)

The coefficient of determination (R square) shows how much the independent variable explains the dependent variable. The R square value is zero to one.

Table 12 R Test Results

No Control Variables

R-squared	0.833448	Mean dependent var	0.330384
Adjusted R-squared	0.829628	S.D. dependent var	0.264946
S.E. of regression	0.109359	Sum squared resid	2.607165
F-statistic	218.1799	Durbin-Watson stat	1.788560
Prob(F-statistic)	0.000000		

With Control Variables

R-squared	0.856862	Mean dependent var	0.312617
Adjusted R-squared	0.852905	S.D. dependent var	0.262075
S.E. of regression	0.100514	Sum squared resid	2.192356
F-statistic	216.5041	Durbin-Watson stat	1.910378
Prob(F-statistic)	0.000000		

The R^2 value shown in the table above without the Covid control variable is 0.833448, which means that the ROA variable is influenced by the CAR, FDR, BOPO, NPF and Total Asset variables by 83.34%. The R2 value according to the table with the Covid control variable is 0.856862, meaning that the Profitability (ROA) variable is influenced by the CAR, FDR, BOPO, NPF and Asset variables as well as the Covid control variable by 85.69%, while the remaining 14.31% is influenced by other factors outside these variables.

Panel Data Regression Equation

The research multiple linear regression equation model based on the selected model in table 11 is as follows:
Regression equation without covid control variable:
ROA = 8,3636-0,0326 CAR+ 0,0004 FDR-0,0616 BOPO- 0,0029 NPF- 0,2811 ASET

Regression equation with covid control variable:
ROA = 7,2725-0,0015 CAR+ 0,0003 FDR-0,0586 BOPO- 0,0053 NPF- 0,1765 ASET-0,0920 COVID

Next, the following is a summary of the results of hypothesis testing:

Table 13 Summary of Hypothesis Testing Results

Hypothesis	Details	Information
H1	CAR has a positive effect on the ROA of BPRS in Indonesia	Rejected
H2	FDR has a positive effect on the ROA of BPRS in Indonesia	Rejected
H3	BOPO has a negative effect on the ROA of BPRS in Indonesia	Accepted
H4	Credit risk has a negative effect on the ROA of BPRS in Indonesia	Accepted
H5	Bank size has a positive effect on ROA of BPRS in Indonesia	Rejected
H6	The effect of the covid control variable on ROABPRS in Indonesia	Accepted

Based on table 12, there is only a slight difference in the influence of control variables through the R test on ROA and without control variables, this could be because in 2020 and 2021 there were policies issued by the OJK to deal with the pandemic situation. The policy

issued is POJK Number 2/POJK.03/2021 (valid until 31 March 2022) concerning Policies for Rural Banks and Sharia Rural Banks as a Impact of the Spread of Coronavirus Disease 2019 which is an amendment to POJK Number 34/POJK.03/ 2020 (valid from 1 April 2020 to 31 March 2021). This policy provides stimulus to BPRS, one of which is by allowing the general Allowance for Productive Asset Losses (PPAP) for productive assets with current quality to be set at 0% (zero percent) or less than 0.5% (zero-point five percent) of productive assets smooth quality. Based on this, the policy can increase the profit earned by the BPRS by maintaining the NPF, which can simultaneously maintain the profitability of the BPRS.

RESULTS AND DISCUSSION

Effect of Capital Adequacy on BPRS Profitability

Capital adequacy is assessed through the CAR ratio by measuring core capital and supplementary capital compared to RWA. In table 13, the test results show that CAR has no effect on ROA. This is in line with research conducted by (Munir, 2018; Permatasari & Filianti, 2020b; Sutrisno & Widarjono, 2022) which concludes that CAR has no effect on ROA. This can happen because the BPRS is less effective in managing capital, a high CAR indicates that bank management is not optimal in using equity to be channeled as financing. A CAR that is too high will also be increasingly inefficient, so it is possible that the profitability obtained by BPRS will not be maximized.

The Effect of FDR on BPRS Profitability

FDR or Financing to Deposit Ratio is a measurement of the amount of funds collected from residents or the general public by banks, which are placed in the form of financing. The FDR ratio is calculated from total financing compared to total third-party funds. In Table 13, the test results show that FDR has no effect on ROA. This is in line with research conducted by (Munir, 2018; Permatasari & Filianti, 2020) which concluded that FDR had no effect on ROA. FDR does not have a significant effect on ROA in the research results, this could be because the financing distributed by the BPRS has not been running effectively and optimally so it has not been able to generate profits for the BPRS.

The Effect of Efficiency on Profitability

Efficiency in this research is measured using the BOPO ratio where the calculation is a comparison between operational expenses and operating income. In table 11, the test results show that BOPO has a negative effect on ROA, which means that reducing BOPO will increase profitability.The lower the BOPO percentage, the BPRS is declared capable of operating its operational activities effectively and efficiently.This is in line with research conducted by(Chabachib et al., 2019; Handayani et al., 2021; Khalifaturofi'ah, 2021; Permatasari & Filianti, 2020a; Siddique et al., 2022; Sutrisno & Widarjono, 2022)which concludes that efficiency has a negative effect on ROAOperating expenses are less than operating income, so BPRS can generate operating income at lower or smaller costs which can increase profitability.

The Effect of Credit Risk on Profitability

In research with a sample of BPRS objects in the 4-year period (2018-2021), credit risk is proxied through NPF. NPF calculation by comparing the amount of problematic financing with total financing. Based on table 11, the test results show that credit risk has a negative effect on ROA profitability, which means that a decrease in NPF will increase profitability. This is in line with research (Aliu & Çollaku, 2021; Amalia & Nugraha, 2021; Chabachib et al., 2019; Handayani et al., 2021; Khalifaturofi'ah, 2021; Siddique et al., 2022; Sutrisno & Widarjono, 2022) which states that NPF has a negative effect on profitability.A decrease in NPF will result in an increase in profitability (ROA) so that the achievement or performance of the bank will get better. Low non-performing loans will affect the bank's ability to obtain profitability.

The Effect of Bank Size on Profitability

Based on Table 11, bank size (size) is a scale to measure the size of an SRB using the Total Assets proxy. In the research conducted, it is known that size has a negative effect on profitability. The results of this study indicate that a large bank size or large Total Assets of a BPRS can reduce profitability which may be due to the less optimal use of BPRS assets to increase profitability. Management of large BPRS assets is no longer economical. This is in line with the research conducted (Permatasari & Filianti, 2020).

The Role of Covid as a Control Variable

Likewise, the test results in Table 11, the application of the pandemic covid control variable is able to have an impact on profitability where the results of the pandemic covid control variable have a negative effect on profitability. The test results show that control variables can reduce the profitability of a BPRS.

CLOSING

Conclusion

Following are the findings of the results of testing and analysis of BPRS recorded at the OJK for the 2018–2021 period, as follows:

1. Capital adequacy (CAR) cannot affect the profitability of the BPRS.
2. FDR cannot affect the profitability of the BPRS.
3. Efficiency (BOPO) negatively affects BPRS profitability, so an increase in BOPO will reduce BPRS profitability.
4. Credit Risk (NPF) negatively influences BPRS profitability, so an increase in NPF will reduce BPRS profitability.
5. Bank size (Size) negatively influences BPRS profitability, so that increasing size will reduce BPRS profitability.
6. The Covid pandemic acts as a control variable but weakens the influence of profitability.

Suggestion

Several factors that can be added in future research include:

OJK has issued regulations regarding Sharia Rural Financing Banks through POJK Number 2/POJK.02/2022 which isrefinement of POJK Number 3/POJK.03/2016 concerning Sharia People's Financing Banks carried out on 8 institutional aspects with the aim of supporting the sharia banking industry consolidation program through the establishment of more selective BPRS, creating a more effective and efficient BPRS licensing process in supporting development BPRS institutions, as well as presenting a more organized and stronger BPRS institution.

OJK has also issued POJK Number 26 of 2022 concerning assessment of the soundness level of BPRs and BPRSs to evaluate the performance of BPRs and BPRSs in implementing the principles of prudence and compliance with statutory provisions and Sharia principles for BPRSs. The development of the financial services industry in line with the needs of society accompanied by product and service developments and innovations has an impact on BPR and BPRS risk exposures which are increasingly complex and require BPRs and BPRS to pay attention to risk and governance aspects. Thus, in the process of assessing the Health Level of BPR and BPRS, it is also necessary to include an assessment of the risk profile and governance of BPR and BPRS activities. Besides that,

The research object can be expanded by adding micro-scale banks in the ASEAN region, Asia and the world. Next, it is necessary to carry out different tests between micro-scale banks in each country so that the research results can be completed.

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