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THE INFLUENCE OF CREDIT RISK AND EFFICIENCY ON THE FINANCIAL PERFORMANCE OF CONVENTIONAL AND SHARIA BPRs IN EAST JAVA IN THE PERIOD BEFORE AND DURING THE PANDEMIC

Cahya Firman Wahyudi[1], Harjum Muharam[2]
Faculty of Economics and Business, Diponegoro University, Indonesia
Email: addraffa@gmail.com[1], Harjummuharam@lecturer.undip.ac.id[2]

Abstract

This research study analyzes the influencecredit risk and efficiency on the financial performance of conventional and Sharia East Java BPRs in the period before and during the pandemic. Credit risk in this study uses NPL, NPF, LPP, while efficiency uses BOPO and CIR as independent variables.Financial performance in this study uses ROA, ROE, NIM ratios as dependent variables. In the research sample as many as251 BPR and 25 BPRS in East Java in the 2018-2021 period.Data analysis used a difference test between the average values of different groups using the sample t-test and ANCOVA test to analyze more than one dependent variable with the help of SPSS 26 software. The research results show that in hypotheses H1-a to H1-l, those that accept H0 are H1-c, H1-f, H1-g, H1-j, H1-k, which means there is no multivariate influence from the independent variable on the dependent variable. Meanwhile, the hypotheses H2-a to H2-l that accept H0 are H2-b, H2-g, H2-h, H2-i, H2-j, which means there is no multivariate influence from the independent variable on the dependent variable. in hypotheses H3-a to H3-f which accept H0 are H3-a, H3-b, H3-c which means there is no significant difference in the variable ratios before the pandemic between BPR and BPRS. in the hypotheses H4-a to H4-d which accept H0 are H4-a and H4-b meaning that there is no significant difference in the variable ratios before the pandemic between BPR and BPRS. in hypotheses H5-a to H5-d which accept H0 are H5-a, H5-b, H5-c and and H5-d means there is no significant difference in the variable ratios before the pandemic between BPR and BPRS.

Keywords: *Credit Risk, Efficiency, Financial Performance, BPR, BPRS*

INTRODUCTION

Corona Virus Disease (Covid-19**)** spread in almost all countries including Indonesia, so the World Health The Organization (WHO) declared it a pandemic at the beginning of 2020. The Covid-19 pandemic has had an impact on various sectors, one of which is banking due to disruption of debtor business activities which has an impact on returning credit or financing to banks.

Conditions shown by Rural Banks (BPR) and Sharia Rural Banks (BPRS) in Indonesia. There is a slowdown in growth and an increase in risk for each BPR and BPRS (Sofyan, 2021). Several components experienced a decline, such as the amount of savings/deposits, while several risk indicators, such as NPL, increased.

The slowdown in growth of BPR and BPRS was due to the Covid-19 pandemic which had a significant impact. The majority of problems experienced by BPRs are a decrease in the number of loans disbursed and an increase in the bad credit ratio (Tua & Nurita, 2021).

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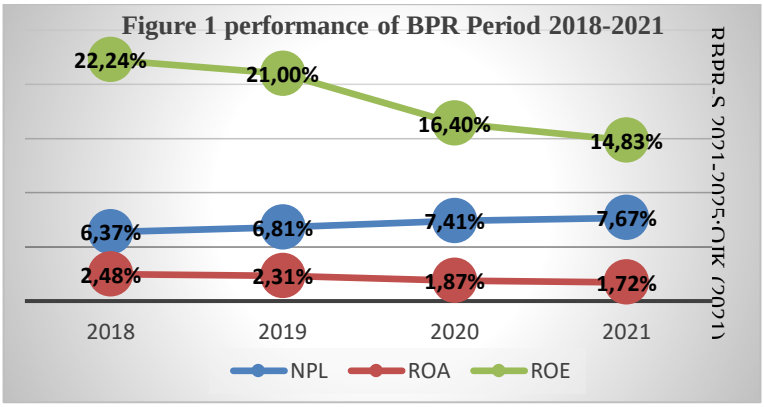

Figure 1 shows the performance of BPR when viewed from the conditions of ROA, ROE and NPL. Based on the condition of the Return on Asset (ROA) ratio, there is a significant decrease in the level of profit generated by BPR when compared to its total assets. BPR's ROA fell to 1.72% from the previous 2.48% (2018) or decreased by 30.6% from its original position. This shows that the performance of BPRs due to the Covid-19 pandemic has become increasingly inefficient.

Meanwhile, from a Return on Equity (ROE) perspective, the contribution of BPR profits to the total capital owned by BPRs has also decreased. The decline in ROE in the last 3 years reached 33.32% from the previous position of 22.24% (2018) to 14.83% (2021). The decrease was due to an increase in non-performing loans experienced by BPRs during the Covid-19 pandemic in Indonesia, resulting in a decrease in BPR net profits.

BPR performance assessment is not only limited to the level of profitability, the NPL ratio has increased from 6.37% (2018) to 7.67% (2021) or is above the benchmark of 5%. Even though the NPL ratio was above 5% before the Covid-19 pandemic occurred, the pandemic has made the NPL ratio condition even worse. BPR also faces uncertainty and risk(Tiwu, 2020). BPRs need to monitor the risks they face so that BPR and BPRS assets can be protected.

Apart from that, the level of operational efficiency is also a key aspect. A more efficient BPR will be able to maximize the benefits received by its stakeholders, including the BPR's capacity to provide credit to micro and small businesses (Anwar et al, 2018). Therefore, BPR and BPRS as part of the banking industry also follow 3 performance assessment components consisting of (1) Profitability, (2) Risk, (3) Operational efficiency(Ariss, 2010).

Anticipating the impact of the pandemic, the authorities issued a stimulus policy due to the reduction in debtors' ability to make installments. However, the policy of postponing installments has had a negative impact on BPR profitability. The average ROA ratio fell to below 2% in 2020. The pandemic which caused a decline in credit growth as the main component of BPR assets greatly affected its contribution to generating net profit. Apart from that, the level of BPR efficiency decreased at the end of 2020, reflected in the BOPO ratio which contracted 274 bps to 84.24% and contracted again to 85.07% in June 2021. The

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increase in BOPO was caused by a decrease in credit interest income and an increase in interest expenses due to growth in deposits. (OJK, 2021).

BPRS, which previously had a higher average financing growth of 14.75% in 2015-2019, has also experienced a slowdown since 2019. The slowdown was due to low growth in consumer financing which previously grew significantly so that financing growth decreased due to the pandemic to 7. 42% at the end of 2020. This caused BPRS profitability to decline to below 2% in 2020. In addition, the level of BPRS efficiency experienced a decline, reflected in the BOPO ratio which contracted 351 bps to 87.62% at the end of 2020 and to 88, 53% in June 2021 (OJK, 2021).

Apart from facing the Covid-19 pandemic, BPR and Sharia BPR are facing Commercial Banks are starting to allocate quite large productive assets to schemes Micro credit has long been the largest market for BPR and BPRS. Apart from that, BPR and BPRS also have to face Fintech lending companies that market peer-to-peer facilities with offers with the main advantages of speed of service and online applications that are easier to access.(Sofyan, 2019).

Previous research from Yasin & Fisabilillah (2021) testing BPR performance both before and after Covid-19. The research results show that there is an increase in the BOPO ratio for all BPRs due to a decrease in income which is not accompanied by a significant decrease in operational costs. This happens because the majority of BPRs still prioritize family aspects so they do not lay off employment during the pandemic. However, the weakness of the research is that there are measurement variables that only measure financial performance based on LDR, CAR, ROA, BOPO, NPL ratios. Apart from that, this research only takes the scope of BPR without considering Sharia BPR (BPRS).

Based on researchHidayat et al. (2021)as well as researchYasin & Fisabilillah (2021), then there is a research gap where there is no research that examines the Risk, Efficiency and Performance of BPR and BPRS before or after the Covid-19 pandemic.

The topic of BPR has been studied in the context of performance and financial performance as well as a comparison between Conventional BPR and Sharia BPR. However, there is a gap in it previous research, especially when looking at the variables to be studied and in comparing performance before the pandemic and after Covid-19. Previous research only compared the Health Level ratio variable before and during the pandemic, while this research also compares the influence of credit risk factors and efficiency on profitability. Apart from that, the time period used This research will take data from 2018 to 2021.

Average from previous research from Wasiaturrahma, et al., (2020), Wijaya and Widnyana (2022) and Amitarwati (2021) which examined the performance of BPR and BPRS. Previous research has weaknesses in data, time period, measurement, and analysis techniques. ResearchWasiaturrahma et al. (2020)only examines the performance of BPR and BPRS in the 2017-2020 period. Meanwhile researchYasin & Fisabilillah (2021) focuses on testing BPR performance in two conditions before and after Covid-19.

Weaknesses in previous research will give rise to gaps that can be reexamined by using variables and time sets different. This research will examine not only profitability variables, but also the level of efficiency and risk of BPR and BPRS. This research takes place within

the scope of Java Province East as a province in Indonesia with the largest number of BPR and BPRS. In connection with these conditions, research it aims to test risk, efficiency and performance BPR and BPRS finance in Java Province East to provide an overview of the development potential of BPR and BPRS.

Based on the discussion in the introduction above, it can be formulated that the problem in this research is the Covid-19 phenomenon which has disrupted the performance of BPRs and Rural Banks in East Java Province. Apart from that, the Covid-19 phenomenon also increases risk and reduces the efficiency of BPR and BPRS, and there is a research gap in the form of setting time, location and variable measuring instruments regarding the influence of credit risk and efficiency on profitability of BPR and BPRS in Java East. Based on the research problem, the following research questions can be asked:

1. Is the risk credit has an effect on profitability of BPR and BPRS in East Java before and during the Covid-19 pandemic?
2. Does efficiency affect the profitability of BPR and BPRS in East Java before and during the Covid-19 pandemic?
3. Is there any? differences in profitability levels between BPR and BPRS in East Java before and during the Covid 19 pandemic?
4. Is there any? differences in risk levels between BPR and BPRS in East Java before and during the Covid-19 pandemic?
5. Is there any? differences in efficiency levels between BPR and BPRS in East Java before and during the Covid-19 pandemic?

LITERATURE REVIEW

Rural Banks

Cashmere (2008) defines a bank as a financial institution whose main activity is to collect funds and redistribute these funds to community, apart from that the bank also carries out other banking service provision activities. In accordance with Law Number 10 of 1998, replacing Law Number 7 of 1992 concerning Banking (Banking Law), the banking structure is stated Indonesia consists of Commercial Banks and Rural Banks. The basic difference between the two are limitations in the provision of products and services as well as operational area coverage for BPR and BPRS as regulated in more detail in the Financial Services Authority Regulation (POJK) Number 62/POJK.03/2020 concerning Rural Banks.

Sharia People's Financing Bank (BPRS)

BPRS was established based on Law Number 7 of 1992 and Government Regulation Number 72 of 1992 concerning Banks Based on Profit Sharing Principles. Apart from that, based on point 4 of article 1 of Law Number 10 of 1998 concerning Banking it is stated that BPRS is a bank that carries out its business activities based on sharia principles, which in its activities does not provide payment traffic services. Furthermore, Law Number 21 of 2008 concerning Sharia Banking also regulates banking structures sharia consisting of Sharia Commercial Banks (BUS) and Sharia People's Financing Banks (BPRS). BPRS Business Activities are stipulated in Article 45 POJK Number 3/POJK.03/2016 concerning

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Sharia Rural Financing Banks which states that in implementation of activities BPRS business has an obligation to implement the Principles Sharia and principles caution.

Financial Performance Theory

Related parties The relationship with an entity will be very important to the condition of the entity's performance. Importance Entity performance measurement can be expressed using two theories, namely agency theory and agency theory signal (signaling theory). On theory agency (agency theory) explains that in each entity there are two parties who carry it out interaction. These parties are the owner (principle) and management/management (agent). Entities that implement separation of ownership functions and management functions will vulnerable to agency conflict which is caused by each party having conflicting interests in achieving their respective prosperity (Jensen and Meckling, 1976).

In this regard, to increase company value, management must be able to reduce asymmetric information by providing signals in the form of reliable financial information that can describe the company's future prospects. Report about performance company Which Good will increase mark company.

In the context of BPR and BPRS, performance measurement is carried out by shareholders on management performance within an agreed period. The performance measured can be seen from financial and non-financial aspects. However, in this research, the performance aspect measured is the financial performance of BPR and BPRS in the current year. This performance is reflected in the BPR and BPRS Annual Financial Reports. If the BPR and BPRS financial reports show positive performance, it will provide a good signal to stakeholders and be able to reduce the occurrence of agency problems.

Risk Theory

Risk is an event of uncertainty or unpredictability that brings potential losses in the form of assets, lost opportunities to gain profits or other economic capabilities (Bouchaud & Potters, 2000). Risk is also defined as a threat or potential for an action or event to have an impact that is not in accordance with the objectives or is opposite to the direction to be achieved (Clarkson, Cherrybank, & ML, 2000).

Risk is also often defined as a condition where there are several possible events, each of which will cause different results. However, the level of probability or possibility of this event occurring cannot be determined using quantitative measures. Griffin (2002: 715) defines risk as uncertainty about future events regarding desirable or undesirable outcomes. Griffin (2002: 715) divides risk into 2 parts, Pure Risk & Speculative Risk. Pure Risk is the possibility of losing an asset so you have 2 choices, loss or no loss. Meanwhile, Speculative Risk is a risk associated with investment where the choice is profit or loss.

Efficiency Theory

Efficiency is a comparison of interrelated activities and results. Efficiency is a measure of the performance of an institution or organization in order to improve business quality.

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Some efficiency factors include: (1) smaller input produces the same output, (2) the same input produces a larger output, and (3) large amounts of input produce much greater results (Qurniawati, 2013).

Efficiency describes the success of an individual business or organization as measured by the number of resources that power used for achieve the results of their activities. Efficiency is also meaningful as a comparison of input and output (Novendra, 2014). Efficiency serves as a benchmark when comparing input and output. Input includes how comparative figures are derived that are relevant to the intended use of the benchmark.

This research uses measurements from researchHidayat et al. (2021)which looks at banking performance in several measurements, namely:

1. Financial performance
   a. *Return on Assets (ROA)*
   b. *Return on Equity (ROE)*
   c. *Net Interest Margin (NIM)*
2. Risk
   a. *Non Performing Loans (NPL)*
   b. *Loan Loss Provision (LLP)*
3. Efficiency
   a. *Operating Costs and Operating Income (BOPO)*
   b. *Cost to Income Ratio (CIR).*

The use of ROA, NPL and BOPO has been commonly used in assessing the health level of BPR and BPRS using the CAMEL approach. This research will also be equipped with measurements of Financial Performance, Credit Risk and Efficiency using ROE, NIM, LLP and CIR which are used as supporting ratios for calculating the soundness level of Commercial Banks.

The performance of a company is closely related to the company's ability to generate profits. This is related to the meaning of profitability ratio or profit ratio, namelyratio used to measure the efficiency of using company assets in generating profits during a certain period (Irawati, 2006). Menicucci & Paolucci (2016) define profitability as a bank's ability to carry out performance to obtain profits from year to year and is measured by the ROE, ROA and NIM ratios.

ROE is ratio used for assess the level of the entity's ability to utilize existing resources to generate profits on each issued equity (Fahmi, 2012). Meanwhile, the ROA ratio focuses on the company's ability to obtain profits from the assets used (Husnan, 1998). Another measure used in profitability is NIM, namely the ratio used to measure ability banks to manage productive assets to obtain net interest income.

The NPL ratio has become a measure of credit risk for BPR, while other risk measures for credit risk are parameters called Expected Loss (EL) and Unexpected Loss (UL). The EL factor is determined by the Profitability of Default (PD) parameter obtained from the bank's internal rating system. EL is the basis for the need to charge provisions at the beginning of the grant credit and become basis for determining provision for non-performing loans or

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PPAP (Indonesian Bankers Association, 2015) and presented in the form of a comparison of the LLP ratio.

The BOPO ratio is widely used in measuring the level of efficiency of BPR and BPRS. While CIR is considered to have a higher level of accuracy than BOPO, this is because the CIR formula does not involve interest expense as a reflection of bank deposit interest rates which are greatly influenced by external factors beyond the bank's control. CIR reflects the magnitude overhead costs incurred by banks to generate revenue, so truly reflects efficiency bank operations (Hafidz, January; Indah 2013).

Theoretical Framework

Several previous studies have explained several results of testing risk and efficiency variables on the performance of an institution. This research tested the Risk, Efficiency and Performance variables of the institution in two conditions, before Covid-19 and after Covid-19. As for the framework this research can seen in Figure 2. This research tests the hypothesis in 2 dimensions, the performance dimension and the time dimension. In the performance dimension, the theoretical framework can be seen in Figure 2.

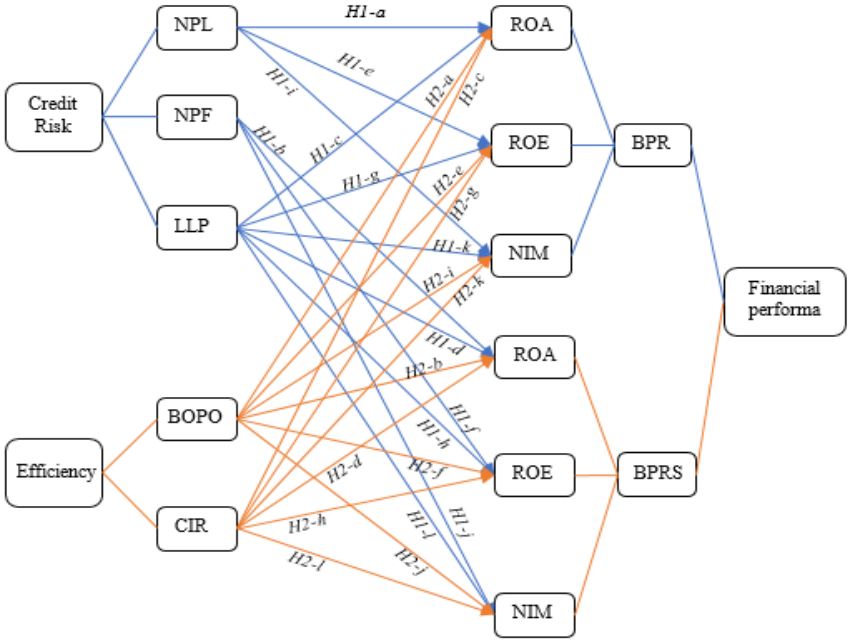

Figure 2 Research Framework – Testing Relationships Between Variables

Figure 2 examines the relationship between credit risk variables and efficiency on the financial performance of BPR/BPRS. The first hypothesis (H1) focuses on testing credit risk on financial performance, while the second hypothesis (H2) tests the effect of efficiency on financial performance.

The second dimension in this research examines differences in Profitability, Risk and Efficiency between BPR and BPRS both before and during the Covid-19 pandemic. The research framework in the second dimension can be seen in figure 3, figure 4, and figure 5.

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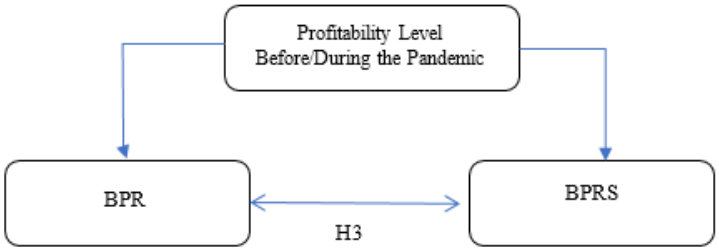

Figure 3 Profitability Difference Test between BPR and BPRS before and during Covid-19

Figure 3 explains the profitability relationship between BPR and BPRS both before and during the Covid-19 pandemic in Indonesia. This test uses ROA, ROE, NIM measuring instruments to see the level of profitability between BPR and BPRS.

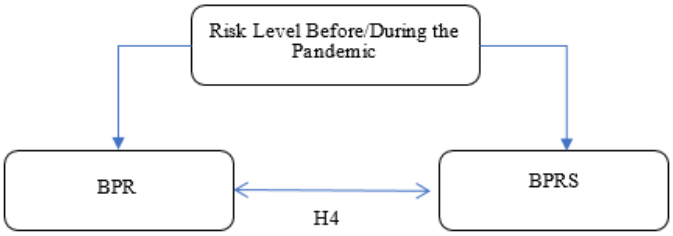

Figure 4 Risk Difference Test between BPR and BPRS before and during Covid-19

Figure 4 explains the relationship between risk levels between BPR and BPRS both before and during the Covid-19 pandemic in Indonesia. This test uses NPL/NPF and LLP measuring instruments to test the level of risk between BPR and BPRS.

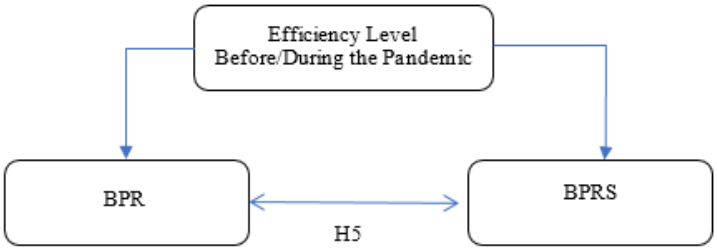

Figure 5 Efficiency Difference Test between BPR and BPRS before and during Covid-19

Figure 5 explains the relationship between the level of efficiency between BPR and BPRS both before and during the Covid-19 pandemic in Indonesia. This test uses BOPO and CIR measuring instruments to test the level of efficiency between BPR and BPRS.

METHOD

Data Types and Sources

Quantitative research generally uses secondary data and surveys. However, in this research we will use secondary data available in the Financial Services Authority (OJK) database. Range of data collected in the 2018-2021 time period. The data obtained will then be processed to determine the comparison of financial performance, efficiency and risk between BPR and BPRS.

Population and Sample

Population

Population is a generalization of objects and subjects which has the qualities and character in accordance with those specified researchers to observe and conclude(Sugiyono, 2016). Population in This research is the BPR and BPRS Index for the entire East Java Province, consisting of 278 BPRs and 27 BPRSs.

Sample

A sample is a number of quantities and characteristics of the population(Sugiyono, 2016). Deep sample This research is 251 BPR and 25 BPRS in East Java in the 2018-2021 period. The samples taken were existing BPRs and BPRSs in that period.

Analysis Techniques

This research uses techniques analysis in the form of analysis quantitative, namely by carrying out calculations and continued by assessing the data in the form of numbers using univariate and multivariate analysis.

The formula for testing the Risk, efficiency and BPR/BPRS performance variables is as follows:

$$Perf\ it = \alpha + \beta 1RISK\ it + \beta 2EFF\ it + \varepsilon\ it$$

$$Y1 = \alpha + \beta 1X1 + \beta 2X2 + \beta 3X3 + \beta 4X4 + \varepsilon\ 1$$

$$Y2 = \alpha + \beta 1X1 + \beta 2X2 + \beta 3X3 + \beta 4X4 + \varepsilon\ 2$$

$$Y3 = \alpha + \beta 1X1 + \beta 2X2 + \beta 3X3 + \beta 4X4 + \varepsilon\ 3$$

Information :

1. Dependent Variable (Perf it) = BPR/BPRS Performance
   - Y1 = ROA
   - Y2 = ROE
   - Y3 = NIM
2. Independent Variable (β1RISK it) = BPR/BPRS Risk
   - X1 = NPL/NPF
   - X2 = LLP
3. Independent Variable (β2EFF it) = BPR/BPRS Efficiency Level
   - X3 = BOPO
   - X4 = CIR

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Through MANCOVA analysis, we will obtain the influence of risk (NPL & LLP) and efficiency (BOPO & CIR) on financial performance (Return on Assets, Return on Equity and Net Interest Margin) between BPR and BPRS before and during the Covid-19 pandemic.

RESULTS AND DISCUSSION

Descriptive statistics

Descriptive statistics are used as initial observations to identify the characteristics of the data before proceeding to Inference Statistics. Below are descriptive statistics for BPR and BPRS in conditions before the Covid-19 pandemic and during the Covid-19 pandemic.

Table 1 Descriptive Analysisbefore and during the Covid-19 pandemic

Condition	Var	Mean	95% Confidence Interval		Median	Variant	Std. Dev	Min	Max	Range	Std. Error
			Low	Up							
Before Pandemic	ROA	2.9	2.2	3.6	3.6	67.3	8.2	-99.0	87.0	186.0	0.3
	ROE	16.7	13.7	19.7	0.9	1227.6	35.7	-107.0	291.2	398.2	1.5
	NIM	23.2	19.6	26.8	14.3	1872.2	43.2	-46.8	299.8	346.7	1.8
	NPLs	9.2	8.4	9.9	6.3	78.7	8.8	0.0	57.7	57.7	0.3
	LLP	3.4	3.1	3.7	2.1	13.2	3.6	0.0	28.2	28.2	0.1
	BOPO	90.0	83.9	96.0	81.1	5233.8	72.3	-131.0	1321.8	1452.8	3.0
	CIR	67.7	62.3	73.2	60.3	4276.1	65.3	16.7	1321.0	1304.3	2.7
During the Pandemic	ROA	2.4	1.5	3.2	2.0	102.9	10.1	-57.0	204.0	261.0	0.4
	ROE	0.6	-0.2	1.5	0.2	106.6	10.3	-111.2	94.1	205.3	0.4
	NIM	12.3	11.9	12.8	12.1	34.3	5.8	-10.8	38.9	49.7	0.2
	NPLs	11.4	10.5	12.2	8.0	109.6	10.4	0.0	76.0	76.0	0.4
	LLP	3.7	3.4	4.1	2.5	21.2	4.6	0.0	56.9	56.9	0.1
	BOPO	91.3	87.7	94.9	84.0	1846.6	42.9	24.0	689.0	665.0	1.8
	CIR	70.1	66.5	73.7	62.4	1845.2	42.9	23.7	687.6	663.9	1.8

Based on table 1, the financial performance for Return of Assets (ROA) before the pandemic had an average of 2.97% and during the pandemic it was 2.44%. Based on observations, it can be seen that banks' Return of Assets (ROA) before the pandemic was on average greater than during the pandemic. The standard deviation value from before the pandemic was 8.20868 and during the pandemic it was 10.14854. So, the average ROA value during the pandemic is indeed more deviant than before the pandemic. The minimum ROA value before the pandemic was -99.01% with a maximum value of 87%. Meanwhile, during the pandemic the minimum value was -57.00% and the maximum was 204%.

Then the bank's financial performance for Return on Equity (ROE) as shown in table 1 had an average of 16.77% before the pandemic and during the pandemic it was much lower at 0.66%. Based on observations, it can be seen that Return on Equity (ROE) before the pandemic was on average greater than during the pandemic. The standard deviation value from before the pandemic was 35.7743 and during the pandemic it was 10.32876. Thus, the average ROE value before the pandemic is more deviant than during the pandemic. The

minimum ROE value before the pandemic was -107.00% with a maximum value of 291.21%. Meanwhile, during the pandemic the minimum value was -111.2% and the maximum was 94.16%.

Table 1 shows the financial performance for the average Net Interest Margin (NIM) before the pandemic was 23.26% and during the pandemic it was 12.39%. Based on observations, it can be seen that the Net Interest Margin (NIM) before the pandemic was on average greater than during the pandemic. However, the standard deviation value before the pandemic was 43.26942 and during the pandemic it was 5.8641. So, the average NIM value before the pandemic is more deviant than during the pandemic. The minimum NIM value before the pandemic was -46.86% with a maximum value of 299.86%. Meanwhile, during the pandemic the minimum value was -10.83% and the maximum was 38.95%.

Then for the Non-Performing Loan (NPL) risk factor in Table 1, the average value before the pandemic was 9.22% and during the pandemic it was 11.41%. Based on observations, it can be seen that Non-Performing Loans (NPL) before the pandemic were on average slightly smaller than during the pandemic. However, the standard deviation value before the pandemic was 8.87259 and during the pandemic it was 10.47107. So, the average NPL value before the pandemic is less deviant than during the pandemic. The minimum NPL value before the pandemic was 0% with a maximum value of 57.72%. Meanwhile, during the pandemic the minimum value was also 0% and the maximum was 76.00%.

Looking at the risk factors for Loan Loss Provision (LLP) in Table 1, the average before the pandemic was 3.43% and during the pandemic it was 3.79%. Based on observations, it can be seen that the Loan Loss Provision (LLP) before the pandemic was on average slightly smaller than during the pandemic. However, the standard deviation value before the pandemic was 3.64424 and during the pandemic it was 4.61385. So, the average LLP value before the pandemic is less deviant than during the pandemic. The minimum LLP value before the pandemic was 0% with a maximum value of 28.27%. Meanwhile, during the pandemic the minimum value was also 0.05% and the maximum was 56.96%.

Looking at the efficiency factors for Overhead Costs (BOPO) in Table 1 shows the average value before the pandemic was 90.02% and during the pandemic it was 91.38%. Based on observations, it can be seen that Overhead Costs (BOPO) during the pandemic are on average greater than before the pandemic. However, the standard deviation value from before the pandemic was 72.34529 and during the pandemic it was 42.97317. Thus, the average BOPO value during the pandemic is less deviant than before the pandemic. The minimum BOPO value before the pandemic was -131.00% with a maximum value of 1321.83%. Meanwhile, during the pandemic the minimum value was 24.00% and the maximum was 689.00%.

Looking at the efficiency factors for the Cost to Income Ratio (CIR) in Table 1, the average value before the pandemic was 67.79% and during the pandemic it was 70.13%. Based on observations, it can be seen that the Cost to Income Ratio (CIR) during the pandemic is on average greater than before the pandemic. However, the standard deviation value from before the pandemic was 65.39217 and during the pandemic it was 42.95645. Thus, the average CIR value during the pandemic is less deviant than before the pandemic.

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The minimum CIR value before the pandemic was 16.78% with a maximum value of 1321.09%. Meanwhile, during the pandemic the minimum value was 23.70% and the maximum was 687.62%.

BPR Analysis Results

The results of the analysis regarding BPR can be seen in the following SPSS output. where there is a simultaneous test of the dependent variable.

Table 2 BPR MANCOVA Results

Effect		Value	F	Sig.	Partial Eta Squared
NPLs	Pillai's Trace	,091	6.545b	,000	.019
	Wilks' Lambda	,981	6.545b	,000	.019
	Hotelling's Trace	,020	6.545b	,000	.019
	Roy's Largest Root	,020	6.545b	,000	.019
LLP	Pillai's Trace	,002	.661b	,576	,002
	Wilks' Lambda	,998	.661b	,576	,002
	Hotelling's Trace	,002	.661b	,576	,002
	Roy's Largest Root	,002	.661b	,576	,002
BOPO	Pillai's Trace	,048	16.815b	,000	,048
	Wilks' Lambda	,952	16.815b	,000	,048
	Hotelling's Trace	,051	16.815b	,000	,048
	Roy's Largest Root	,051	16.815b	,000	,048
CIR	Pillai's Trace	,032	10.985b	,000	,032
	Wilks' Lambda	,968	10.985b	,000	,032
	Hotelling's Trace	.033	10.985b	,000	,032
	Roy's Largest Root	.033	10.985b	,000	,032
Pandemic	Pillai's Trace	,521	116,968	,000	,260
	Wilks' Lambda	,519	129,050b	,000	,280
	Hotelling's Trace	,853	141,449	,000	,299
	Roy's Largest Root	,753	250.107b	,000	,429

In table 2 it can be seen that all .Sig values (except the Loan Loss Provision (LLP) variable) have a value of 0.000. Thus, risk factors (NPL), efficiency factors (BOPO and CIR) have a multivariate influence on at least one of the dependent variables or BPR financial performance variables. Also, the Pandemic Period provided a significant average difference in at least one of the dependent variables or financial performance. However, the LLP risk factor variable does not have a significant multivariate influence on the three types of financial performance variables (ROA, ROE and NIM) simultaneously. This is because the .Sig value for LLP is still above 0.05.

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Univariate analysis can be seen in the figure below.

Table 3 BPR Univariate Results

Variables	Parameter	B	Std. Error	t	Sig.
ROA	NPLs	-.099	.033	-3,049	,002
	LLP	,040	,075	,530	,596
	BOPO	-.051	,007	-7,050	,000
	CIR	-.040	,008	-5.120	,000
	[BeforePandemic=1]	11,104	,532	20,875	,000
	[Pandemic Period=2]	10,942	,551	19,860	,000
ROE	NPLs	-.208	,100	-2,083	,038
	LLP	-.094	,230	-.409	,683
	BOPO	-.022	,022	-.978	,328
	CIR	-.037	.024	-1,538	.124
	[BeforePandemic=1]	23,074	1,632	14,137	,000
	[Pandemic Period=2]	7,576	1,691	4,482	,000
NIM	NPLs	-.348	.131	-2,654	,008
	LLP	,388	,302	1,282	,200
	BOPO	-.034	,029	-1,175	,240
	CIR	,069	,032	2,179	,030
	[BeforePandemic=1]	25,342	2,142	11,830	,000
	[Pandemic Period=2]	13,986	2,219	6,304	,000

After carrying out multivariate and univariate analysis, the estimation results can be interpreted as follows:

The ROA (Return of Assets) variable in BPRs is significantly influenced by risk factors (NPL), efficiency factors (BOPO and CIR) and, there is a significant difference in BPR ROA values before the pandemic and during the pandemic. The ROA (Return of Assets) variable in BPR is negatively influenced by risk factors (NPL) and efficiency factors (BOPO and CIR). Where, an increase of 1% in NPL will provide a decrease of 0.099% in ROA if the values of other variables are constant. An increase in the BOPO value by 1% gives a decrease of 0.051% and an increase in CIR by 1% gives a decrease of 0.04% in ROA assuming the other variables are constant. For the ROA (Return of Assets) variable in BPR, there is a significant difference during the pandemic. Where, before the pandemic period it gave an average of 11.104% and this result decreased by 0.162% during the pandemic period where the value was 10.942%.

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The ROE (Return on Equity) variable in BPRs is significantly influenced by risk factors (NPL), and there is a significant difference in BPR ROE values before the pandemic and during the pandemic. The ROE (Return on Equity) variable in BPR is negatively influenced by risk factors (NPL). Where, an increase of 1% in NPL will provide a decrease of 0.208% in ROE if the values of other variables are constant. For the ROE (Return on Equity) variable in BPR, there is a significant difference during the pandemic. Where, before the pandemic period it gave an average of 23.074% of ROE and this result decreased by 15.498% during the pandemic period where the value was 7.576%.

The NIM (Net Interest Margin) variable in BPR is significantly influenced by risk factors (NPL), efficiency factors (CIR) and there is a significant difference in the value of BPR NIM before the pandemic and during the pandemic. The NIM (Net Interest Margin) variable in BPR is negatively influenced by risk factors (NPL) and positively influenced by efficiency factors (CIR). Where, a 1% increase in NPL will provide a decrease of 0.348% in NIM if the values of other variables are constant. An increase in CIR of 1% provides an increase of 0.069% in NIM assuming other variables are constant. For the NIM (Net Interest Margin) variable in BPR, there is a significant difference during the pandemic. Where, before the pandemic period it gave an average of 25.342% and this result decreased by 11.356% during the pandemic period where the value was 13.986%.

BPRS Analysis Results

Table 4 Results of Multivariate ANCOVA BPRS

Effect		Value	F	Sig.
NPLs	Pillai's Trace	.131	4.470b	,006
	Wilks' Lambda	,869	4.470b	,006
	Hotelling's Trace	,150	4.470b	,006
	Roy's Largest Root	,150	4.470b	,006
BOPO	Pillai's Trace	,728	78.599b	,000
	Wilks' Lambda	,272	78.599b	,000
	Hotelling's Trace	2,680	78.599b	,000
	Roy's Largest Root	2,680	78.599b	,000
CIR	Pillai's Trace	,058	1,800b	.153
	Wilks' Lambda	,942	1,800b	.153
	Hotelling's Trace	,061	1,800b	.153
	Roy's Largest Root	,061	1,800b	.153
LLP	Pillai's Trace	,218	8.199b	,000
	Wilks' Lambda	,782	8.199b	,000
	Hotelling's Trace	,279	8.199b	,000
	Roy's Largest Root	,279	8.199b	,000
Pandemic	Pillai's Trace	,832	21,141	,000
	Wilks' Lambda	,190	38,000b	,000

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	Hotelling's Trace	4,153	60.222	,000
	Roy's Largest Root	4,125	123.378b	,000

In table 4 it can be seen that all .Sig values (except the Cost to Income Ratio (CIR) variable) have a value of 0.000. Thus, risk factors (LLP and NPL), efficiency factors (BOPO) have a multivariate influence on at least one of the dependent variables or BPRS financial performance variables. Also, the Pandemic Period provided a significant average difference in at least one of the dependent variables or financial performance. The CIR risk factor variable does not have a significant multivariate influence on the three types of financial performance variables (ROA, ROE, and NIM) simultaneously. This is because the .Sig value for CIR is above 0.05, amounting to 0.153.

Table 5 Univariate BPRS Results

Variables	Parameter	B	S.E	t	Sig.
ROA	NPF	,061	.023	2,613	.011
	LLP	-.107	,007	-15,503	,000
	BOPO	-.010	,006	-1,847	,068
	CIR	-.294	,080	-3,685	,000
	[Before Pandemic=1]	12,280	,645	19,042	,000
	[Pandemic Period=2]	12,331	,738	16,701	,000
ROE	NPF	,813	,480	1,693	,094
	LLP	-.932	,142	-6,545	,000
	BOPO	-.235	.116	-2,025	,046
	CIR	-2,071	1,647	-1,258	,212
	[Before Pandemic=1]	116,569	13,317	8,754	,000
	[Pandemic Period=2]	114,637	15,246	7,519	,000
NIM	NPF	-.131	.073	-1,791	,077
	LLP	-.077	,022	-3,547	,001
	BOPO	-.015	.018	-.818	,415
	CIR	,662	,252	2,631	,010
	[Before Pandemic=1]	12,138	2,035	5,964	,000
	[Pandemic Period=2]	13,623	2,330	5,846	,000

After carrying out multivariate and univariate analysis, the estimation results can be interpreted as follows:

The ROA (Return of Assets) variable in BPRS is significantly influenced by risk factors (NPL and LLP), efficiency factors (BOPO) and there is a significant difference in the ROA value of BPRS before the pandemic and during the pandemic. The ROA (Return of Assets) variable at BPRS is negatively influenced by risk factors (LLP) and efficiency

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factors (BOPO). However, the efficiency factor (NPL) has a positive influence on BPRS ROA. Where, a 1% increase in LLP will provide a decrease of 0.294% in ROA if the values of other variables are constant. An increase in the BOPO value by 1% gives a decrease of 0.107% and an increase in NPL by 1% gives an increase of 0.061% in ROA assuming other variables are constant. For the ROA (Return of Assets) variable in BPRS, there is a significant difference during the pandemic. Where, before the pandemic period it gave an average of 12.28% and this result increased by 0.051% during the pandemic period where the value was 12.331%.

The ROE (Return on Equity) variable in BPRS is significantly influenced by the efficiency factor (BOPO), and there is a significant difference in the ROE value of BPRS before the pandemic and during the pandemic. The ROE (Return on Equity) variable at BPRS is negatively influenced by the efficiency factor (BOPO). Where, a 1% increase in BOPO will result in a decrease of 0.932% in ROE if the values of other variables are constant. For the ROE (Return on Equity) variable in BPRS, there is a significant difference during the pandemic. Where, before the pandemic period it gave an average of 116.569% of ROE and this result decreased by 1.932% during the pandemic period where the value was 113.637%.

The NIM (Net Interest Margin) variable in BPRS is significantly influenced by risk factors (NPL and LLP), efficiency factors (BOPO) and, there is a significant difference in the NIM value of BPRS before the pandemic and during the pandemic. The NIM (Net Interest Margin) variable at BPRS is negatively influenced by risk factors (NPL) and efficient factors (BOPO). Meanwhile, NIM is positively influenced by risk factors (LLP). Where, an increase of 1% in NPL will provide a decrease of 0.131% in NIM if the values of other variables are constant. An increase in BOPO of 1% provides a decrease of 0.077% in NIM at BPRS. An increase in LLP of 1% provides an increase of 0.662% in NIM assuming other variables are constant. For the NIM (Net Interest Margin) variable in BPRS, there is a significant difference during the pandemic. Where, before the pandemic period it gave an average of 12.138% and this result increased by 1.492% during the pandemic period where the value was 13.632%.

From the Mancova test that has been carried out, the results obtained are summarized in table 4.13 as follows:

Table 6 Summary of Tests on the Effect of Credit Risk and Efficiency on Profitability

Hypothesis	Sig	Decision	Conclusion
H1-a	0.002	Reject H0	NPL has a negative effect on BPR's ROA
H1-b	0.011	Reject H0	NPF has a negative effect on ROA of BPRS
H1-c	0.596	Accept H0	LLP has no effect on BPR ROA

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H1-d	0,000	Reject H0	LLP has a negative effect on ROA of BPRS
H1-e	0.038	Reject H0	NPL has a negative effect on BPR's ROE
H1-f	0.094	Accept H0	NPF has no effect on BPRS ROE
H1-g	0.683	Accept H0	LLP has no effect on BPR's ROE
H1-h	0,000	Reject H0	LLP has a negative effect on BPRS ROE
H1-i	0.008	Reject H0	NPL has a negative effect on BPR's NIM
H1-j	0.077	Accept H0	NPF has no effect on BPRS NIM
H1-k	0.200	Accept H0	LLP has no effect on BPR's NIM
H1-l	0.001	Reject H0	LLP has a negative effect on BPRS NIM
H2-a	0,000	Reject H0	BOPO has a negative effect on BPR ROA
H2-b	0.068	Accept H0	BOPO has no effect on BPRS ROA
H2-c	0,000	Reject H0	CIR has a negative effect on BPR ROA
H2-d	0,000	Reject H0	CIR has a negative effect on ROA of BPRS
H2-e	0.038	Reject H0	BOPO has a negative effect on BPR's ROE
H2-f	0.046	Reject H0	BOPO has a negative effect on BPRS ROE
H2-g	0.124	Accept H0	CIR has no effect on BPR's ROE
H2-h	0.212	Accept H0	CIR has no effect on BPRS ROE
H2-i	0.240	Accept H0	BOPO has no effect on BPR's NIM
H2-j	0.415	Accept H0	BOPO has no effect on BPRS NIM
H2-k	0.030	Reject H0	CIR has a negative effect on BPR's NIM

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H2-l	0.010	Reject H0	CIR has a negative effect on BPRS NIM

t Test for Independent Samples

In this t-test analysis, data regarding performance ratios, credit risk and efficiency from the two groups (BPR and BPRS) is carried out and a t-test statistical test is carried out to test whether the difference in ratios between the two groups is significant or not.

Next, an independent samples t-test analysis was carried out to compare the conditions of each variable to conditions before the pandemic with the following results:

Table 7 Independent Samples Test (Before the Pandemic)

	Levene's Test for Equality of Variances			t-test for Equality of Means		
		F	Sig.	t	Sig. (2-tailed)	Mean Difference
ROA	Equal variances assumed	3,958	0.047	0.778	0.437	0.946
	Equal variances not assumed			1,830	0.069	0.946
ROE	Equal variances assumed	0.013	0.908	-0.695	0.487	-3,680
	Equal variances not assumed			-0.574	0.568	-3,680
NIM	Equal variances assumed	8,392	0.004	3,281	0.001	20,840
	Equal variances not assumed			9,547	0,000	20,840
NPLs	Equal variances assumed	0.974	0.324	1,268	0.205	1,668
	Equal variances not assumed			1,420	0.161	1,668
LLP	Equal variances assumed	17.39	0,000	3,565	0,000	1,904
	Equal variances not assumed			7,735	0,000	1,904
BOPO	Equal variances assumed	1,355	0.245	0.236	0.814	2,526

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	Equal variances not assumed			0.639	0.523	2,526
CIR	Equal variances assumed	0.563	0.453	-1,339	0.181	-13,237
	Equal variances not assumed			-1,729	0.088	-13,237

After carrying out the t-test analysis, the estimation results can be interpreted as follows:

Based on the results of the tests carried out, significant results are sought by checking the "Sig. (2-tailed)" column in the t-test for Equality of Means for p-values that are smaller than the predetermined significance level (0.05) . The test results show that under conditions of equal variance assumptions, the ROA, ROE, NPL, BOPO and CIR variables show a p-value that is greater than the 0.05 significance level. Meanwhile, the significant differences between the groups being compared were in the NIM and LLP variables.

The NIM (Net Interest Margin) variable, under conditions of equal variances assumed, the p value (Sig.) is 0.001, which is smaller than the significance level of 0.05. This shows that there is a significant difference in Net Interest Margin (NIM) between the BPR and BPRS groups. Furthermore, in the condition of assuming different variances (equal variances not assumed), the p value (Sig.) is also very small (0.000), which confirms that the difference in NIM remains significant between the BPR and BPRS groups.

The LLP (Loan Loss Provision) variable, under the condition of assuming equal variances, p value (Sig.) is 0.000, which is smaller than the significance level of 0.05. This shows that there is a significant difference in Loan Loss Provision (LLP) between the BPR and BPRS groups. Furthermore, under the condition of assuming different variances, the p value (Sig.) is also very small (0.000), which confirms that the difference in LLP remains significant between the BPR and BPRS groups.

Conditions During the Pandemic

Table 8 presents the SPSS output in the form of the mean of each variable for the BPR (1) and BPRS (2) data groups during the pandemic (2018 and 2019 data).

Table 8 Independent Samples Test (During the Pandemic)

	Levene's Test for Equality of Variances			t-test for Equality of Means	
		F	Sig.	t	Sig. (2-tailed)
ROA	Equal variances assumed	0.097	0.756	1,180	0.239

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	Equal variances not assumed			2,332	0.021
ROE	Equal variances assumed	344.6	0,000	-2,906	0.004
	Equal variances not assumed			-0.910	0.367
NIM	Equal variances assumed	4,095	0.044	10,902	0,000
	Equal variances not assumed			12,407	0,000
NPLs	Equal variances assumed	0.434	0.510	1,478	0.140
	Equal variances not assumed			1,384	0.172
LLP	Equal variances assumed	6,657	0.010	3,000	0.003
	Equal variances not assumed			4,634	0,000
BOPO	Equal variances assumed	0.008	0.929	-0.555	0.579
	Equal variances not assumed			-0.668	0.506
CIR	Equal variances assumed	1,464	0.227	-1,892	0.059
	Equal variances not assumed			-1,811	0.075

After carrying out the t-test analysis, the estimation results can be interpreted as follows: Based on the results of the tests carried out, significant results are sought by checking the "Sig. (2-tailed)" column in the t-test for Equality of Means for p-values that are smaller than the predetermined significance level (0.05) . The test results show that under conditions of the same variance assumption, the ROA, NPL, BOPO and CIR variables show a p-value that is greater than the 0.05 significance level. Meanwhile, the significant differences between the groups being compared are in the ROE, NIM and LLP variables.

The ROE (Return on Equity) variable, under conditions of equal variances assumed, the p value (Sig.) is 0.004, which is smaller than the significance level of 0.05. This shows that there is a significant difference in ROE between the BPR and BPRS groups. Furthermore, in the condition of assuming different variants (equal variances not assumed), the p value (Sig.), even though the p value (Sig.) is greater (0.367), the results of this test are less significant.

The NIM (Net Interest Margin) variable, under conditions of equal variances assumed, the p value (Sig.) is 0.000, which is smaller than the significance level of 0.05. This shows that there is a significant difference in Net Interest Margin (NIM) between the BPR and BPRS groups. Furthermore, in the condition of assuming different variances (equal variances not assumed), the p value (Sig.) is also very small (0.000), which confirms that the difference in NIM remains significant between the BPR and BPRS groups.

The LLP (Loan Loss Provision) variable, under the condition of assuming equal variances, p value (Sig.) is 0.003, which is smaller than the significance level of 0.05. This

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shows that there is a significant difference in Loan Loss Provision (LLP) between the BPR and BPRS groups. Furthermore, under the condition of assuming different variances, the p value (Sig.) is also very small (0.000), which confirms that the difference in LLP remains significant between the BPR and BPRS groups.

From the Independent t-test that has been carried out, the results obtained are summarized in table 9 as follows:

Table 9Summary of Tests for Differences in Profitability, Credit Risk and Efficiency Between BPR and BPRS

Hypothesis	Sig	Decision	Conclusion
H3-a	0.437	Accept H0	There was no difference in ROA between BPR and BPRS before the pandemic
H3-b	0.239	Accept H0	There is no difference in ROA between BPR and BPRS during the pandemic
H3-c	0.487	Accept H0	There was no difference in ROE between BPR and BPRS before the pandemic
H3-d	0.004	Reject H0	There is a difference in ROE between BPR and BPRS during the pandemic
H3-e	0.001	Reject H0	There was a difference in NIM between BPR and BPRS before the pandemic
H3-f	0,000	Reject H0	There is a difference in NIM between BPR and BPRS during the pandemic
H4-a	0.205	Accept H0	There was no difference in NPL/NPF between BPR and BPRS before the pandemic
H4-b	0.140	Accept H0	There is no difference in NPL/NPF between BPR and BPRS during the pandemic
H4-c	0,000	Reject H0	There were LLP differences between BPR and BPRS before the pandemic
H4-d	0.003	Reject H0	There are differences in LLP between BPR and BPRS during the pandemic
H5-a	0.814	Accept H0	There was no difference in BOPO between BPR and BPRS before the pandemic
H5-b	0.579	Accept H0	There is no difference in BOPO between BPR and BPRS during the pandemic
H5-c	0.181	Accept H0	There was no difference in CIR between BPR and BPRS before the pandemic
H5-d	0.059	Accept H0	There is no difference in CIR between BPR and BPRS during the pandemic

RESULTS AND DISCUSSION

Risk Factors for BPR and BPRS Profitability

Non Performing Loans(NPL) is the main ratio to determine the health of a bank, this ratio compares the number of problem loans with the entire credit portfolio owned. Based on the estimation results, NPL has a negative and significant influence on the profitability of BPR and BPRS in East Java. NPL has an influence on BPR's ROE and NIM, based on the results obtained when NPL increases by 1% it will reduce BPR's ROE by 0.208% assuming the other variables are fixed. An increase in NPL of 1% will also reduce BPR's NIM by 0.348% when other variables are fixed. Meanwhile, for BPRS, the NPL variable influences the ROA and NIM ratio, based on the results obtained when NPL increases by 1%, it will reduce BPRS ROA by 0.061% when other variables are fixed. Then, when there is an increase in NPL of 1%, it will reduce the BPRS NIM by 0.131% when other variables are fixed.

Through the estimation results that have been presented, it can be concluded that NPLs have a negative and significant influence on the financial performance of BPR and BPRS. The NPL variable reflects the health of the credit portfolio held by the financial service provider. The higher the NPL value, it can be concluded that the worse the health quality of the credit portfolio held by the financial service provider. An unhealthy credit portfolio will increase the probability of payment failure by debtors, if more and more debtors experience payment failure it will certainly have a negative impact on profitability.the authority of the financial institution. The occurrence of the Covid-19 pandemic has also made the quality of credit portfolios become worse, because with the Covid-19 pandemic global financial conditions have worsened so that many debtors have lost their ability to pay credit to banks borrowing funds.

Loan Loss Provision (LLP) is a reserve for losses or decline in assets owned by the bank. Based on the estimation results, LLP influences the BPR ROA and BPRS NIM ratios. Through the results obtained, the LLP variable has a negative and significant influence on BPR ROA, where a 1% increase in LLP will reduce BPR ROA by 0.099%, this is assuming the other variables in the model are fixed. Meanwhile, in BPRS, the LLP variable has a positive and significant influence on BPRS NIM, where every 1% increase in LLP will increase BPRS NIM by 0.662% when other variables are fixed.

The LLP variable reflects the quality of the assets owned by the bank. The higher the LLP value, it can be concluded that the condition of the bank's assets is in poor condition. This is importantspirit in making bank decisions to provide credit, of course when the condition of the assets is not good then the bank will really consider providing loans to prospective debtors. There are interesting results in the findings of this research, because LLP has a negative and significant influence on BPR profitability but has a positive and significant influence on BPRS. These differences in influence show how different financial performance is. Through the LLP variable, banks can only assess the health of the assets they own. Through the results of this assessment, banks can measure the level of risk when providing credit to debtors, then from healthy credit, the bank can obtain profits and profitability. In the world of banking, risk and profit go hand in hand, high risk has the possibility of producing high expected profits (Hawley, 1893). Based on the results obtained, it can be seen that BPR and BPRS have different abilities in making credit granting decisions,

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increasing the LLP variable in BPR and BPRS has a different influence on each bank. This is in line with Bowman's (1979) idea that risk is paradoxical in determining profitability, with the same level of risk sometimes providing different benefits.

Efficiency Factors on the Profitability of BPR and BPRS

Profability is the goal expected by financial service providers including BPR and BPRS or we can briefly call it output.The estimation results of the Overhead Cost (BOPO) variable have a negative and significant influence on the financial performance of both BPR and BPRS. In BPR, the BOPO variable affects ROA negatively and significantly, where every 1% increase in BOPO will reduce BPR ROA by 0.051%, assuming the other variables are fixed. Then in BPRS the BOPO variable influences all BPRS financial performance ratios, where every 1% increase in BOPO will reduce BPRS ROA by 0.107% when other variables are assumed to be constant. Apart from that, an increase in BOPO of 1% will reduce the ROE of BPRS by 0.932%, then an increase in BOPO of 1% will decrease the NIM of BPRS by 0.077%. Both of these estimates assume other variables have fixed values.

The finding that BOPO has a negative and significant influence on the financial performance of BPR and BPRS can be explained by several factors and a review of relevant theories. First, BOPO reflects the level of bank operational costs in managing its business. The higher the BOPO, the greater the proportion of operational costs to bank income. In the context of BPRS, this also has an impact on NIM, because higher operational costs can lead to lower efficiency in generating interest income. Second, the decline in financial performance resulting from high BOPO can be linked to potential risk management and corporate governance problems. In addition, poor risk management can lead to an increase in NPLs and the need to increase loss reserves (LLP), which results in a decrease in ROA and ROE.

Operational efficiency theory states that high operational costs can reduce bank profitability, while risk management theory emphasizes the importance of effective risk management in minimizing the negative impact on financial performance. To improve financial performance, both BPRs and SRBs need to adopt an approach that focuses on operational efficiency and careful risk management. Banks need to evaluate their cost structures and look for ways to reduce overhead costs without sacrificing service quality. In addition, it is important to strengthen credit risk management and establish adequate loss reserves to anticipate potential credit risks that may arise in the future. By facing these challenges with the right strategy, BPR and BPRS can improve their financial performance and achieve stability and sustainable growth.

Then for variables*Cost to Income Ratio*(CIR) only influences BPR, while BPRS financial performance is not influenced by this variable. Based on the estimation results, when CIR increases by 1%, it will reduce BPR's ROA by 0.04%, assuming other variables are fixed. Then, when the CIR increases by 1%, the BPR NIM will decrease by 0.348%, assuming the other variables are fixed.

Based on the estimation results, it appears that CIR does not have a significant influence on the financial performance of Sharia Rural Banks (BPRS). In BPRS, changes in

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CIR do not appear to have a significant impact on ROA and NIM of BPRS, assuming other variables remain constant. This suggests that in the BPRS context, the relationship between CIR and financial performance may be more complex or may be influenced by other factors not measured in the estimation model. A high CIR reflects low operational efficiency, and can cause a decrease in profits or ROA. In the context of BPR, CIR may have a more significant influence due to its different size and operational cost structure to BPRS.

Differences in Profitability Levels Between BPR and BPRS Before and During the Pandemic

Measuring the level of profitability of Rural Banks (BPR) and Sharia Rural Banks (BPRS) is carried out by comparing the average financial performance of each bank during the 2018-2021 time period. A comprehensive profitability evaluation considers several key indicators, including Return on Assets (ROA), Return on Equity (ROE), and Net Interest Margin (NIM).

First, ROA measures how efficient a bank is in generating profits from its assets. During the 2018-2021 period, it appears that BPR ROA tends to be higher than BPRS ROA. BPR ROA decreased from 3.09% in 2018 to 2.51% in 2021, while BPRS ROA fluctuated but tended to decrease from 1.87% in 2018 to 0.89% in 2021. This shows that BPR has succeeded in managing its assets more efficiently than BPRS in make a profit. Second, ROE is another important indicator in assessing bank profitability. ROE measures the rate of return for bank shareholders from invested capital. In this case, it can be seen that BPR ROE has drastically decreased from 32.36% in 2018 to 0.25% in 2021. On the other hand, BPRS ROE has also decreased, but is still higher than BPR ROE, from 16.31% in 2018 to 4.07 % in 2021. The significant decline in BPR ROE indicates the challenges faced by banks in managing capital efficiency and generating profits for their shareholders, while BPRS managed to achieve a relatively better ROE.

Furthermore, the NIM condition reflects the bank's ability to generate income from interest activities and manage interest margins. BPR NIM decreased from 16.26% in 2018 to 12.62% in 2021, while BPRS NIM also decreased from 2.33% in 2018 to 4.42% in 2021. Although BPR NIM was higher in absolute terms, a more significant percentage change occurred in BPRS NIM during that period. The decline in BPR and BPRS NIMs indicates pressure on interest income which could affect the profitability of both banks. To complete the analysis, it is necessary to note that other factors outside the data can also influence the level of profitability of the two banks. BPR may face challenges in dealing with credit risk, which can affect its ROA and ROE. On the other hand, BPRS may experience special operational and sharia risks, which may affect its ROA and NIM. Different assumptions and policies in asset and capital management can also have an impact on differences in the profitability of the two banks.

In the context of the Covid-19 pandemic, its impact on the profitability of both banks may be complex. The decline in BPR ROA and ROE during the pandemic period shows the negative impact of the health crisis. On the other hand, BPRS may have succeeded in maintaining a more stable level of ROA and ROE. However, the increase in BPRS NIM

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during the pandemic shows the bank's ability to manage interest margins amidst market volatility.

Then, to find out how significant the differences in profitability ratios are between BPR and BPRS in conditions before and during the pandemic, a statistical test was carried out. Based on the results of the t-test, it is known that the ROA and ROE ratios in conditions before and during the pandemic showed a p-value greater than the 0.05 significance level. This shows that there is no significant difference between the ROA and ROE ratios of BPR and BPRS both before and during the pandemic. Meanwhile, for the NIM variable, the results of the t-test show significant differences between the BPR and BPRS NIM groups both before and during the pandemic. Before the pandemic the p value (Sig.) was 0.001, while during the pandemic the p value (Sig.) was 0.000 which was smaller than the 0.05 significance level. This shows that there is a significant difference in Net Interest Margin (NIM) between the BPR and BPRS groups

In conclusion, based on analysis of financial performance data and assumptions before and during the Covid-19 pandemic, BPR had a higher level of profitability than BPRS during the time period analyzed. Even though BPR's ROE experienced a drastic decline, BPR's ROA and ROE remained higher than BPR's. However, there is no significant difference in ROA and ROE between the BPR and BPRS groups both before and during the pandemic. Meanwhile, BPR NIM tends to be higher than BPRS NIM and there is a significant difference in NIM between the BPR and BPRS groups in conditions before and during the pandemic. However, a more in-depth evaluation is needed by considering other factors to comprehensively understand the financial conditions and strategies implemented by the two banks.

Differences in BPR and BPRS Risk Levels Before and During the Pandemic

Measuring the level of credit risk between BPR and BPRS before and during the Covid-19 pandemic will use the average of banking risk indicators.During the period 2018 to 2021, there was a fluctuation in NPL (Non Performing Loan) at Rural Banks (BPR), from 9.81% in 2018 to 11.53% in 2021. On the other hand, Sharia Rural Banks (BPRS) experienced an increase in NPL from 7.76% in 2018 to 10.88% in 2021. Analysis of this data indicates that both BPR and BPRS are facing increased credit risk during the COVID-19 pandemic period. The increase in NPLs indicates a higher potential risk of default, which could have a negative impact on the quality of the two banks' credit portfolios. Apart from that, it is also worth noting that the Loan Loss Provision (LLP) or credit loss reserve has also increased during the same time period. At BPR, LLP rose from 3.75% in 2018 to 4.16% in 2021. On the other hand, BPRS reported an increase in LLP from 1.76% in 2018 to 2.17% in 2021. The increase in LLP shows that both banks have increased reserves to face potential higher credit risk during the pandemic. This reflects a more conservative approach in dealing with risk and shows the commitment of both banks to manage credit risk wisely.

The high level of credit risk during this pandemic period is not only a challenge for BPR and BPRS, but is also a major concern for the financial sector as a whole. In the face of economic uncertainty and changes in consumer behavior, good risk management is the

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key to reducing the negative impact. Banks need to proactively monitor their credit portfolios, improve credit monitoring and evaluation processes, and strengthen risk analysis to identify and address emerging credit risks. Apart from that, the role of regulators and the government is also important in providing appropriate policy support to overcome the credit risk challenges faced by the financial sector. Policy support can help reduce systemic risks and support overall financial sector stability.

Then, to find out how significant the difference in risk levels is between BPR and BPRS in conditions before and during the pandemic, a statistical test was carried out. Based on the results of the t-test, it is known that the NPL ratio in conditions before and during the pandemic showed a p-value greater than the 0.05 significance level. This shows that there is no significant difference between the NPL ratios of BPR and BPRS both before and during the pandemic. Meanwhile, for the LLP variable, the results of the t-test show significant differences between the BPR and BPRS NIM groups both before and during the pandemic. Before the pandemic the p value (Sig.) was 0.000, while during the pandemic the p value (Sig.) was 0.003 which was smaller than the significance level of 0.05. This shows that there is a significant difference in Loan Loss Provision (LLP) between the BPR and BPRS groups.

In conclusion, the increasing level of credit risk during the COVID-19 pandemic period has become the focus of attention for Rural Banks (BPR) and Sharia Rural Banks (BPRS). The increase in NPL and LLP indicates pressure on the quality of the credit portfolio and the care that must be taken in dealing with risk. In facing this challenge, both banks need to strengthen risk management and take appropriate steps to maintain business stability and continuity amidst changes in the economic and financial environment. In this condition, it is also necessary to look further into the reasons for the lower average LLP of BPRS compared to BPR. This can be possible from the spread of economic sectors, credit schemes or types of collateral which can influence the calculation of provisions for non-performing loans.

Differences in BPR and BPRS Efficiency Levels Before and During the Pandemic

During the period 2018 to 2021, the research analyzed two efficiency variables from Rural Banks (BPR) and Sharia Rural Banks (BPRS), namely Overhead Cost and Cost to Income Ratio (CIR). This level of efficiency is important for evaluating bank operational performance and measuring how the bank manages operational costs and obtains income from its activities. First, look at the Overhead Costs of the two banks. The data shows that during this time period, BPRS Overhead Costs as a whole were lower than BPR. This indicates that BPRS has succeeded in managing its operational costs more efficiently. However, it should be noted that BPRS Overhead Costs experienced a significant increase in 2020 and 2021, which may be influenced by the impact of the Covid-19 pandemic on bank operational activities. Next, the Cost to Income Ratio (CIR) of the two banks. A lower CIR level indicates a better level of efficiency. The data shows that the overall CIR of BPRS was higher than that of BPR during this period. This indicates that BPRS faces challenges in managing its operational costs and earns lower income than BPR. In addition, the significant fluctuations in BPRS CIR during the pandemic indicate the impact of Covid-19 on the bank's efficiency performance.

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In the context of financial and banking theory, efficiency is an important indicator in assessing bank operational performance. Overhead Cost reflects the bank's total operational costs, while CIR measures the bank's efficiency in managing operational costs relative to its operating income. The impact of the Covid-19 pandemic is also a critical factor in this analysis. The pandemic has caused changes in banking activity patterns and operational costs, which are reflected in fluctuations in BPRS Overhead Costs and CIR. The lower level of efficiency in BPRS during the pandemic indicates challenges in facing changes in the economic and banking environment.

Furthermore, to find out how significant the differences in efficiency ratios are between BPR and BPRS in conditions before and during the pandemic, a statistical test was carried out. Based on the results of the t-test, it shows that the p-value is greater than the 0.05 significance level. This shows that for BOPO and CIR ratios there is no significant difference between the BPR and BPRS groups both before and during the pandemic.

Overall, BPRS demonstrated a better level of efficiency in managing its operational costs compared to BPR during the analysis period. However, significant fluctuations in the BPRS CIR indicate the challenges faced during the Covid-19 pandemic. It is important for both banks to continue to monitor and manage operational efficiency wisely to achieve optimal performance in the face of changes in the economic and financial environment.

CLOSING

Conclusion

The aim of this research is to evaluate the financial performance (profitability), level of credit risk and efficiency of BPR and BPRS in the period before and during the pandemic. A sample of 251 BPRs and 25 BPRSs in East Java was examined using univariate and mutivariate methods. This objective is supported by the main objective of analyzing the influence of credit risk and efficiency on BPR and BPRS profitability before and during the pandemic, as well as analyzing differences in levels of profitability, risk and efficiency between BPR and BPRS before and during the pandemic. Based on the background, hypothesis, estimation results, and discussion that have been described, several conclusions can be drawn in this research, as follows:

1. BPR and BPRS have different characteristics in dealing with credit risk (NPL) and managing loss reserves (LLP). NPL has a negative impact on BPR's ROE and NIM, while for BPRS, NPL has an impact on ROA and NIM. On the other hand, LLP has a different impact, with a negative influence on BPR ROA and a positive influence on BPRS NIM. This difference shows that the two types of banks have different characteristics in making credit decisions and managing risks, including dealing with pandemic conditions, which ultimately affects their financial performance. Sharia-based BPRS have different provisions and practices in managing credit risk, and produce different impacts on financial performance in certain periods.
2. On the efficiency side, the BOPO variable has a negative and significant influence on the financial performance of both BPR and BPRS. In BPR, BOPO affects ROA negatively and significantly. Meanwhile at BPRS, BOPO affects all financial performance ratios,

namely ROA, ROE and NIM. Meanwhile, the CIR variable only influences the financial performance of BPR, while it has no effect on BPRS performance. When CIR increases by 1%, it will reduce BPR ROA by 0.04% and BPR NIM by 0.348%. These findings illustrate that both BPR and BPRS must focus on operational efficiency to improve their financial performance. High operational costs (BOPO) can reduce bank profitability, while high CIR reflects low operational efficiency. The difference in the impact of the BOPO and CIR variables between BPR and BPRS shows that the characteristics and operational cost structure of these two types of banks are different. Therefore, banks need to adapt their strategies to the operational environment and applicable regulations to achieve optimal results.

3. Based on the results of statistical tests carried out in both conditions, namely before the pandemic and during the pandemic, we can conclude that the research results show significant differences between BPR and BPRS in terms of NIM and LLP both in pre-pandemic conditions and during the pandemic. This shows that there are significant differences in the ability of banks to generate net interest income (NIM) and manage credit risk (LLP) between these two types of banks in that period. Meanwhile, for the ROE ratio, there are significant differences only during the pandemic. Meanwhile, for the ROA, NPL, BOPO and CIR variables, there are no significant differences between BPR and BPRS in conditions before and during the pandemic.
4. Viewed from a profitability perspective, BPR and BPRS show differences in financial performance during the time period analyzed. BPR has a higher level of Return on Assets (ROA) and Net Interest Margin (NIM) than BPRS. Especially for NIM which is significantly different between conditions before and during the pandemic. On the other hand, BPRS ROE remains relatively higher than BPR ROE, although it also decreased from 16.31% in 2018 to 4.07% in 2021. However, BPRS seems to be more influenced by NPL in terms of ROA and NIM. An increase in NPL affects the ability of BPRS to generate interest income and has an impact on ROA. In addition, the LLP condition shows significant differences between BPR and BPRS with the LLP level of BPR being higher than BPRS. The difference in the impact of LLP on the profitability of BPR and BPRS is possibly related to the differences in the characteristics of the two types of banks in setting loss reserves and responding to the pandemic stimulus provided by the government.
5. The NPL and LLP variables increased at BPR and BPRS during the pandemic period, indicating pressure on the quality of the credit portfolio. An increase in NPL indicates a potential risk of default which could have a negative impact on financial performance. However, both banks have taken the prudent step of increasing credit loss reserves (LLP) to face higher risks during the pandemic. This reflects the bank's conservative approach and commitment to managing credit risk carefully.

Future Research Agenda

1. Further research can be carried out to analyze what factors cause fluctuations in NPL and LLP levels in BPR and BPRS during the pandemic period. This research can identify macroeconomic factors, regulatory changes, industry characteristics and customer

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behavior that influence credit risk in both types of banks. The results of this research can help these banks take more proactive steps to manage credit risk.

2. Future research can be conducted to investigate the influence of digital transformation on the financial performance of BPRs and BPRSs during the pandemic period. Factors such as investment in technology, adoption of digital banking services, and operational efficiency due to digital transformation can be evaluated against changes in a bank's financial performance. This research will provide insight into the benefits and positive impacts of investing in technology during an unstable economic situation.
3. Future research could also explore the role of regulators and government policies in addressing credit risk in the banking sector during the pandemic. The influence of regulations and policies on financial performance and bank risk management can be evaluated to understand how government intervention can affect financial sector stability.
4. Research can evaluate the effectiveness of credit risk management implemented by BPRs and BPRSs during the pandemic. This research can identify strengths and weaknesses in the credit analysis process, portfolio monitoring, and use of risk analysis tools. The results of this research will help banks understand the effectiveness of the strategies they implement and improve their credit risk management.

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