

COMPARATIVE ANALYSIS OF BANKING SECTOR FINANCIAL PERFORMANCE BEFORE AND DURING THE COVID-19 PANDEMIC

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Abstrak

Penelitian ini bertujuan untuk mengetahui perbedaan kinerja keuangan sebelum dan setelah pandemi covid-19. Variable yang digunakan untuk mengukur kinerja perbankan adalah rasio likuiditas yang diproksikan oleh LDR/FDR, rasio profitabilitas diproksikan oleh BOPO, ROA dan NIM/NOM, serta rasio solvabilitas diproksikan CAR. Penelitian ini merupakan penelitian kuantitatif dengan pendekatan komparatif. Data yang digunakan adalah data sekunder berupa dokumentasi laporan keuangan perbankan yang diperoleh dari website resmi BEI. Populasi penelitian ini adalah seluruh perbankan yang terdaftar di BEI, pemilihan sampel dilakukan menggunakan teknik purposive sampling, jumlah sampel penelitian ini adalah 25 Bank konvensional dan 2 Bank syariah. Metode analisis data yang digunakan adalah Uji beda dengan paired sample t-test dan uji sign wilcoxon. Hasil penelitian ini menunjukkan terdapat perbedaan kinerja perbankan diukur dengan rasio LDR/FDR dan BOPO. Dan tidak terdapat perbedaan kinerja perbankan diukur dengan ROA, NIM/NOM, dan CAR.

Kata kunci: Kinerja Keuangan, Rasio Keuangan, Pandemi Covid-19

Abstract

This study aims to determine differences in financial performance before and during the COVID-19 pandemic. The variables used to measure banking performance are the Liquidity Ratio proxied by LDR/FDR, the Profitability Ratio proxied by BOPO, ROA, and NIM/NOM, and the Solvency Ratio proxied by CAR. This research is quantitative research with a comparative approach. The data used is secondary data from quarterly banking financial statements obtained from the IDX official website. The population of this study is all banks listed on the IDX, the sample selection is done using a purposive sampling technique, and the number of samples in this study is 25 conventional banks and 2 Islamic banks. The data analysis method used is a different test with a paired sample t-test and the Wilcoxon sign test. The results of this study indicate that there are differences in banking performance measured by the ratio of LDR/FDR and BOPO, and there is no difference in banking performance measured by ROA, NIM/NOM, and CAR.

Keywords: Financial Performance, Financial Ratios, Covid-19 Pandemic

INTRODUCTION

The risk that arises due to the COVID-19 pandemic is the delay in the realization of investment due to investor concerns about the impact of the pandemic (Alamia & Asmara, 2022; Kholilah et al., 2023; Seto & Septianti, 2021). One sector that has experienced a significant impact is the banking sector (Ilhami & Thamrin, 2021) both sharia and conventional. The banking sector's credit or financing income decreased from 7% to 10%, with the largest decline in microsector financing by 19% to the Indonesia Financial Services Authority (OJK) data. The decline in financing also impacts differences in the performance and health of banking finances (Calvina & Tjokrosaputro, 2023).

OJK assesses banking health through several financial ratios, including solvency, profitability, and liquidity ratios. The solvency ratio calculated by the Capital Adequacy Ratio (CAR) measures the bank's ability to cover the decline in assets due to losses (Ilhami & Thamrin, 2021). Adequacy of capital facilitates banking in operational activities. The ideal standard of CAR is more than 8% (Surya, 2020). The Liquidity Ratio is indicated by the Loan Deposit Ratio (LDR) or Financing Deposit to Ratio (FDR) to measure the amount of bank financing compared to third-party funds (current accounts, savings, and time deposits). The health level of this ratio is between 89%-115% (Anggoro & Septiani, 2015; Kurniawati Widi Pratiwi, Maslichah & Afifudin, 2021). This ratio is directly proportional to the company's liquidity and profitability (Musyafa & Kholilah, 2023; Rahmawati & Kholilah, 2023).

The profitability ratio is measured by Net Interest Margin (NIM) /Net Operating Margin (NOM) and Return on Assets. NIM to measure the difference in interest income and interest expense in conventional banking and NOM) in Islamic banking (Pratomo & Ramdani, 2021). The ideal standard for NIM is more than 6%, and NOM is more than 3% (Fitriani, 2020; Safitri & Hendrani, 2020; Tambunan, 2020). ROA is used to measure net income after dividing by total assets. Low returns on assets can occur due to large debts with high interest rates (Pratomo & Ramdani, 2021). The ideal standard of ROA is more than 1.22% (Pratomo & Ramdani, 2021). The Operating Costs to Operating Income (BOPO) ratio shows the company's efficiency in managing costs and operating income. BOPO is inversely proportional to profitability. The higher the operating income, the greater its operational costs' ability to cover (Seto & Septianti, 2021). The ideal standard of BOPO is less than 93.52% (Seto & Septianti, 2021).

The COVID-19 pandemic caused differences in the financial performance of the banking sector as measured by ROA, ROE, BOPO, and CAR (Alamia & Asmara, 2022; Effendi & RS, 2020). Anggoro and Septianti (2021) show differences in bank financial performance measured by ROA and no differences in financial performance measured by CAR and FDR. Similar to the two studies, other researchers show differences in bank financial performance measured by FDR and CAR, but there is no difference in financial performance measured by ROA (Fitriani, 2020; Seto & Septianti, 2021). In contrast to this other researchers failed to find differences in financial performance as measured by the ROA, CAR, and BOPO ratios (Safitri & Hendrani, 2020).

The different and inconsistent results of financial performance before and after the pandemic become a gap in this study. The difference between this study and previous research is the addition of the NIM/NOM to measure profitability because many investors delay or even cancel their investment intentions due to the uncertainty of the pandemic (Rahmawati & Kholilah, 2023). NIM/NOM reflects the company's long-term prospects so that it is expected to attract investors (Alamia & Asmara, 2022). This study aimed to determine differences in the ratios of liquidity, profitability, and solvency of banks in Indonesia before and during the COVID-19 pandemic.

METHOD

This type of research is quantitative with a comparative approach. The comparative approach method is a method used to find out the difference between one variable and several different groups so that it can determine which variable is better. The comparative

method is usually done to determine two different variables' causes and consequences or effects (Rahmawati & Kholilah, 2023). This research uses purposive sampling as a research sampling technique. The sample criteria in this study include being registered on the IDX, registered at least since 2018, publishing quarterly financial reports for 2019 and 2020, and completing financial report data. Based on the above criteria, the number of samples obtained is 27 banks, 25 conventional banks, and 2 Islamic banks. The issuance of financial reports before and after the pandemic occurs in the 1st, 2nd, third, and fourth quarters of 2019-2020.

This study uses banking quarterly report data. The data collection technique in this research is archival data either through the official website of the IDX or the bank concerned. The ratio is a measurement of financial instruments to provide information about the company's ability to meet its current obligations and fulfill customer loans (Alamia & Asmara, 2022). This study measures the liquidity ratio with LDR for measuring conventional banks and FDR for Islamic banks. To measure this ratio, the formula used is:

$$LDR = \frac{\text{Total Loans}}{\text{Total Deposits}} \times 100\%$$

$$FDR = \frac{\text{Total Financing}}{\text{Total Deposits}} \times 100\%$$

Profitability ratios are intended to measure a bank's ability to profit from its operational activities (Pratomo & Ramdani, 2021). Profitability measurement is done using ROA, BOPO, and NIM/NOM ratios. To measure this ratio, the formula used is:

$$BOPO = \frac{\text{Operating Expenses}}{\text{Operating Income}} \times 100\%$$

$$ROA = \frac{\text{Earning before Tax}}{\text{Total Assets}} \times 100\%$$

$$NIM = \frac{\text{Net Interest Income}}{\text{Average Productive Assets}} \times 100\%$$

$$NOM = \frac{\text{Operating Income}}{\text{Average Productive Assets}} \times 100\%$$

The solvency ratio is a measurement instrument that provides information on a bank's ability to meet its long-term obligations (Safitri & Hendrani, 2020). Banking capital adequacy can be measured using the Capital Adequacy Ratio (CAR). The higher the CAR value, the more secure the bank from bankruptcy. To measure this ratio, the formula used is:

$$CAR = \frac{\text{Capital}}{\text{Risk}} \times 100\%$$

Statistics are analyzes used to determine the data obtained and do not test the hypothesis, then take inference and then generalize to obtain more general data or population (Effendi & RS, 2020). The test is used to determine whether the data is normally distributed or not. This study uses the Kolmogorov-Smirnov test and looks at the graphs or statistical tests performed. The purpose of this test is as a basis for conducting further statistical tests. The test is used to obtain information about the similarity of the variances of two or more distributions. The homogeneity test aims to know the sample data that has been obtained in the study from the population with variances, whether it is homogeneous or not. This test is carried out as a condition before conducting a different test (Rahmawati & Kholilah, 2023).

Paired samples t-test is a type of parametric test and has the condition that it must be normally distributed and pass the homogeneity test. This test was conducted to determine the difference in the average in the paired sample, and then it was known from the significance value. In contrast, the Sign-Wilcoxon test is a non-parametric test to test paired samples. This test is a substitute for the paired samples t-test when the variable data does not meet the basic assumption criteria.

RESULT AND DISCUSSION

This research is a comparative quantitative study that examines the impact of a phenomenon on the object under study. The data used in this study is secondary data in the form of documentation, namely the quarterly financial statements of banking companies in Indonesia listed on the IDX before and during the covid-19 pandemic, namely in 2019 and 2020.

Descriptive Statistic

Table 1. Descriptive Statistic

Indicator	Mean Before	Mean During
LDR/FDR	85,87	85,10
BOPO	91,25	99,37
ROA	1,60	1,56
NIM/NOM	4,28	3,37
CAR	20,74	26,00

Table 1 illustrates the mean of each financial performance ratio before and during the covid-19 pandemic. The LDR/FDR ratio of banking before the COVID-19 pandemic had 85.87%, while the value during the covid-19 pandemic was 85.10%. The banking BOPO ratio before the covid-19 pandemic in the table above has an average value of 91.25%, while the value during the covid-19 pandemic is 99.37%. While the value during the covid-19 pandemic was 1.56%, The table above illustrates that the banking NIM/NOM ratio level before the covid pandemic was 4.28%, while the value during the covid-19 pandemic was 3.37%. The banking CAR ratio before the covid-19 pandemic in the data table has an average value of 20.74%, while the value during the covid-19 pandemic is 26.00%.

Normality Test

Table 2. Normality Test

Indicator	KS-Z	Asymp Sig. (2-Tailed)	Description	Distribution
LDR/FDR before covid-19	1.55	0,02	P < 0,05	Abnormal
LDR/FDR during covid-19	1.69	0,00	P < 0,05	Abnormal
BOPO before covid-19	2.85	0,00	P < 0,05	Abnormal
BOPO during covid-19	3.88	0,00	P < 0,05	Abnormal
ROA before covid-19	1.71	0,00	P < 0,05	Abnormal
ROA during Covid-19	0,93	0,00	P < 0,05	Abnormal
NIM/NOM before covid-19	1,01	0,25	P > 0,05	Normal
NIM/NOM during covid-19	0,87	0,42	P > 0,05	Normal
CAR before covid-19	2,20	0,00	P < 0,05	Abnormal
CAR during covid-19	2,53	0,00	P < 0,05	Abnormal

Table 2 shows the results of the normality test of banking ratio data before and during the covid-19 pandemic. The Kolmogorov - Smirnov, showing the LDR/FDR ratio before the pandemic shows sig. 0.016 while the value during the covid-19 pandemic is sig. 0.006, so it can be concluded that the LDR/FDR ratio before and during the covid-19 pandemic was not normally distributed. The normality test on the BOPO ratio before the covid-19 pandemic showed sig. 0.000 while the value during the covid-19 pandemic is sig. 0.000, it can be concluded that the BOPO ratio before and during the covid-19 pandemic is not normally distributed. The ROA ratio of banking before the covid19 pandemic with the normality test in the Kolmogorov - Smirnov shows the sig. 0.006 while the value during the covid-19 pandemic is sig. 0.001, so it can be concluded that the ROA ratio during the covid-19 pandemic is not normally distributed.

The normality test in table 2 shows the value of the NIM/NOM ratio before the covid-19 pandemic was sig. 0.253 while the value during the covid-19 pandemic is sig. 0.425, so it can be concluded that the NIM/NOM ratio data before and during the covid-19 pandemic is normally distributed. Normality test of the CAR ratio before the covid-19 pandemic shows

the sig. 0.000 while the value during the covid-19 pandemic is sig. 0.000, so it can be concluded that the CAR ratio data before and during the covid-19 pandemic is not normally distributed.

Homogeneity Test

Table 3. Homogeneity Test

Indicator	Levene Statistik	Sig.	Description	Distribution
LDR/FDR	0.73	0.39	P > 0.05	Homogen
BOPO	3.28	0.07	P > 0.05	Homogen
ROA	12.20	0.00	P < 0.05	Inhomogeneous
NIM/NOM	0.40	0.52	P > 0.05	Homogen
CAR	2.10	0.14	P > 0.05	Homogen

Table 3 shows the homogeneity test results on the LDR/FDR ratio before and during the covid-19 pandemic with sig. 0.394, it can be concluded that the data on banks' LDR/FDR ratio is homogeneous. The homogeneity test on the BOPO ratio before and during the covid-19 pandemic showed a sig. 0.071 can be concluded that the BOPO ratio data for banking is homogeneous. The homogeneity test results on the ROA ratio before and during the covid-19 pandemic with sig. 0.001 It can be concluded that the banking ROA ratio data is not homogeneous. The homogeneity test on the NIM/NOM ratio before and during the covid-19 pandemic showed a sig. 0,526, it can be concluded that the banking NIM/NOM ratio data is homogeneous.

The homogeneity test on the CAR ratio before and during the covid-19 pandemic in table 3 shows the sig. 0.148 It can be concluded that the banking CAR ratio data is homogeneous. A paired sample t-test will be carried out on the NIM/NOM ratio from the homogeneity test and normality test. Meanwhile, the LDR/FDR, BOPO, ROA, and CAR ratios use the Sign-Wilcoxon test. This test follows the criteria set by the researcher on the framework and research methodology.

Hypothesis Testing

Table 4. Paired Sample Test

Indicator	T	Sig (2-Tailed)	Description	Result
NIM/NOM before-after	0.52	0,60	P > 0,05	H4 Rejected

The results of the different tests using the paired sample test on the ratio NIM/NOM with sig value. 0.600 means that this value is greater than > 0.05. It can be concluded that there is no difference in financial performance before and during the covid-19 pandemic measured by the NIM/NOM ratio due to a lack of investor interest in banking investment due to economic instability during the COVID-19 pandemic. The decline in interest rates was due to a contraction in interest income from loans extended to third parties during the pandemic.

Table 5. Sign-Wilcoxon

Indicator	T	Sig (2-Tailed)	Description	Result
LDR/FDR before-during	-2,93	0,00	P < 0,05	H1 Accepted
BOPO before-during	-4,59	0,00	P < 0,05	H1 Accepted
ROA before-during	-0,16	0,87	P > 0,05	H3 Rejected
CAR before-during	-0,31	0,75	P > 0,05	H5 Rejected

Different tests using sign-Wilcoxon on LDR/FDR ratio with sig value. 0.003 means that this value is smaller than <0.05. It can be concluded that there are differences in financial performance before and during the covid-19 pandemic measured by the LDR/FDR ratio. The decreased credit or financing growth due to low demand, loss of income during the pandemic due to layoffs, and unstable economic conditions. The different tests using sign-Wilcoxon on the BOPO ratio with a sig value. 0.003 means that this value is smaller than <0.05. It can be

concluded that there are differences in financial performance before and during the covid-19 pandemic measured by the BOPO ratio. The decrease in operating income due to the distribution of less-than-optimal funds and the number of financing defaults increased the BOPO ratio even though the operating expenses remained.

Different tests using sign-Wilcoxon on ROA ratio with sig value. 0.873 means that this value is greater than > 0.05 . It can be concluded that there is no difference in financial performance before and during the covid-19 pandemic measured by the ROA ratio. The success of management in generating and stabilizing profits in uncertain economic conditions shows the banks' paid-in capital to generate profits before and during the covid-19 pandemic. The different tests using the sign-Wilcoxon on the CAR ratio with a sig value. 0.753 means that this value is smaller than > 0.05 . It can be concluded that there is no difference in financial performance before and during the covid-19 pandemic measured by the CAR ratio due to excess liquidity in banks and a decline in profitability as a result of covid-19 and deposits that grew quite significantly during the covid-19 pandemic.

There are differences in banking financial performance before and during the covid-19 pandemic measured by the LDR/FDR ratio due to lower credit growth and low demand due to lost income during the pandemic and unstable economic conditions. There are differences in banking financial performance before and during the covid-19 pandemic measured by the BOPO ratio due to a decrease in operating income due to the distribution of unoptimal funds and the number of financing defaults increasing the BOPO ratio even though the operating expenses remained. There is no difference in banking financial performance before and during the covid-19 pandemic measured by the ROA ratio because of the success of management in generating and stabilizing profits in uncertain economic conditions and the ability of banks paid-in capital to generate profits before and during the covid-19 pandemic. There is no difference in banking financial performance before and during the covid-19 pandemic measured by the NIM/NOM ratio because of a lack of investor interest in banking investment due to economic instability during the COVID-19 pandemic. The decline in interest rates was due to a contraction in interest income from loans extended to third parties during the pandemic. There is no difference in banking financial performance before and during the covid-19 pandemic measured by the CAR ratio because of excess liquidity in banks and a decline in profitability due to covid-19 and deposits that grew quite significantly during the covid-19 pandemic.

CONCLUSION

The study's findings suggest variations in profitability and liquidity before and throughout the COVID-19 epidemic. These findings demonstrate that the corporation modified its financial strategy during the pandemic to sustain operational activities while retaining levels of liquidity and profitability. This study, in contrast to the other two ratios, could not identify any variations in the leverage ratio before and during the COVID-19 pandemic. Keeping their debt levels, the same demonstrates that businesses are being more cautious during the COVID-19 pandemic.

RECOMMENDATION

Further research can add samples to other financial institutions such as BPR and BPRS because this sector directly affects the small and medium enterprises. In addition, further research can add to the research period because COVID-19 is still happened.

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