Original Article

COMPARATIVE ANALYSIS OF FINANCIAL PERFORMANCE OF DIGITAL BANKS DURING THE COVID-19 PANDEMIC

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ABSTRACT

Background. Along with the development of technology, banking services in Indonesia have largely transitioned into Digital Banks. Digital banks have become a solution to economic problems during the pandemic period.

Research Purpose. To determine the analysis of the differences in the financial performance of digital banks during the COVID-19 pandemic period.

Research Method. The research employs a comparative quantitative approach with a case research design. The research objects are three digital banks, namely Jago Bank, BTPN Bank, and Bukopin Bank. The data used in the research consists of financial reports from the quarters of the years 2020-2021. The research variables include the ratios ROA, ROE, BOPO, NPM, DER, and LDR. The analysis method utilizes the ANOVA test.

Findings. The financial performance in terms of ROA, ROE, BOPO, NPM, and DER ratios between Jago Bank and BTPN Bank showed significant differences. However, the LDR ratio was no significant difference. The financial performance between Jago Bank and Bukopin Bank, in terms of the ROA, ROE, NPM, and DER ratios, resulted in significant differences. However, the BOPO dan LDR ratios were no significant differences. The overall ratios of BTPN Bank & Bukopin Bank have a significant difference.

Conclusion. There is a significant difference in financial performance between Jago Bank, BTPN Bank, and Bukopin Bank during the pandemic period. These three digital banks exhibit different financial performances, aligning with their respective areas of focus. However, there are some variables among these digital banks that did not show significant differences in the LDR and BOPO.

Keywords: COVID-19, Digital Banks, Financial Performance.

BACKGROUND

The banking sector is a financial institution that plays a crucial role in the economy of a country. A sound banking system enhances the economic sector of the country as banking serves several functions, namely: *agent of trust, agent of development,* and *agent of service.* This indicates that the presence of banking facilitates economic activities in terms of transactions, asset transfers, liquidity, and economic activity efficiency.

Along with the advancement of technology, numerous platform features have emerged, offering convenience in conducting transactions. In this digital era, banking services in Indonesia have largely transitioned into digital banks. Digital banks have become a solution to modern economic issues [1]. The convenience of service and easy access through digital banks becomes an attraction for their customers. Digital banks offer inclusive financial services, serve customers around the clock, and are accessible to all customer

segments [2]. Additionally, the business model of digital banks will have lower operational costs, resulting in lower administrative fees imposed on customers.

The COVID-19 pandemic will directly and indirectly, affect the global economy, markets, as well as the counterparties and debtors of the Bank. Banks must take steps to mitigate the impact on their business, including: ensuring selective credit disbursement by applying prudent principles; enhancing supervision, guidance, and resolution of problem loans; optimizing liquidity risk management to maintain the Bank's liquidity position; and implementing Business Continuity Plans in accordance with OJK guidelines [3].

The importance of the role of banks demands that the financial performance of banks must always be good. If the financial performance of a bank deteriorates from year to year, it will lead to a decrease in public trust in the Indonesian banking system, potentially resulting in *capital flight.* Financial statements are the reflection of numerous transactions that occur within a company. Each financial transaction and event is recorded, classified, and summarized accurately in monetary units, and then interpreted for various purposes. In order for financial statements to be comprehensible, preliminary analysis needs to be conducted using analytical methods.

The commonly used method for analyzing financial statements to measure financial performance is through financial ratios. In this research, the financial ratios employed are Solvency Ratios, utilizing the Debt Equity Ratio (hereinafter referred to as DER) indicator; Liquidity Ratios, using the Loan Deposit Ratio (hereinafter referred to as LDR) indicator; Profitability Ratios, encompassing Return on Assets (hereinafter referred to ROA), Return on Equity (hereinafter referred to as ROE), Net Profit Margin (hereinafter referred to as NPM), and Operating Expenses to Operating Income (hereinafter referred to as BOPO) indicators.

This research focuses on three research objects, namely BTPN Bank with the "Jenius" application, Jago Bank with the "Jago" application, and Bukopin Bank with the "Wokee" application. BTPN Bank is a national private bank that serves as a pioneer in digital banking in Indonesia. Jago Bank is a notable national private bank. Bukopin Bank is a private bank owned by foreign citizens from Korea. It is a new entrant in the banking industry that has shown strong competitiveness and resilience during the COVID-19 pandemic.

In early March 2020, COVID-19 began to spread in Indonesia. The impact of COVID-19 was directly felt across various sectors, including the banking industry. The performance of banks during the initial phase of the COVID-19 pandemic was disrupted in terms of company profits [3]. Therefore, it becomes intriguing to delve deeper into this matter. Based on this, the researcher aims to investigate the analysis of the differences in financial performance among the three digital banks during the COVID-19 pandemic.

Generally, research focuses on comparative analysis of financial performance among conventional banks. Furthermore, there is a comparative analysis of both conventional and Islamic banks before and after the COVID-19 pandemic [4], [5]. Additionally, there is an analysis of the financial performance of a bank after undergoing transformation into a digital bank [6]. Based on several empirical studies that have been conducted, there is currently a lack of comparative analysis of financial performance among digital banks based on ratio analysis methods.

RESEARCH METHOD

This research is case research with a comparative quantitative approach. The research objects include three digital banks, namely Jago Bank, BTPN Bank, and Bukopin Bank. The data used in this research are secondary data. The data source is the quarterly financial reports of each bank from 2020 to 2021. The research variables include the ratios of Return on Assets (hereinafter referred to as ROA), Return on Equity (hereinafter referred to as ROE), Cost Income Ratio (hereinafter referred to as BOPO), Net Profit Margin (hereinafter referred to as NPM), Debt-to-Equity Ratio (hereinafter referred to DER), and Loan-to-Deposit Ratio (hereinafter referred to as LDR).

The analysis method utilizes the ANOVA test for differences with the Kruskal-Walls test and Mann-Whitney test [7], [8]. For the classical assumption test, the normality test results using the Shapiro-Wilk test produced significance values > 0.05 for the ROA, BOPO, DER, LDR, and NPM ratios, indicating that the data is normally distributed. However, the ROE ratio showed a significance value < 0.05, indicating that the data used is not normally distributed. For the classical assumption test, the homogeneity test results using Levene's test yielded a significance value < 0.05, indicating that all the data used in this research is not homogenous or does not have equal variance.

FINDINGS

Descriptive Statistical Analysis

Based on the results of calculations using descriptive statistics, it can be concluded that Jago Bank and BTPN Bank have experienced an increase in financial performance due to the higher level of credit disbursement, resulting in increased interest income. On the other hand, Bukopin Bank has shown fluctuating and declining performance.

Hypothesis Testing

Based on Table 1, the results of the Kruskal-Wallis test on the financial ratios ROA, ROE, BOPO, NPM, DER, and LDR between Jago Bank, BTPN Bank, and Bukopin Bank yielded significance values < 0.05. Based on the decision-making criteria, if the significance value is < 0.05, then Ho is rejected, and H1 is accepted, indicating that there are differences in financial performance in terms of ROA, ROE, BOPO, NPM, DER, and LDR between Jago Bank, BTPN Bank, and Bukopin Bank. Since all variables show differences, it is necessary to perform further non-parametric tests using the Mann-Whitney test. This analysis is used to test the means of two samples with different measurements. Therefore, the measurements of differences between Jago Bank & BTPN Bank, Jago Bank & Bukopin Bank, and BTPN Bank & Bukopin Bank are used.

Table 1. Kruskal-Wallis Test of Jago Bank, BTPN Bank, Bukopin Bank

	ROA	ROE	BOPO	NPM	DER	LDR
Sig	0.12	0.001	0.002	0.006	0.000	0.018

The Differences Between Jago Bank and BTPN Bank

Based on the results of the Mann-Whitney test in Table 2, examining the differences between the Jago Bank and BTPN Bank groups, it can be observed that for the variables ROA, ROE, BOPO, NPM, and DER, the significance values are < 0.05, while for the LDR value, it is > 0.05. Therefore, it can be concluded that Jago Bank and BTPN Bank exhibit significant differences in the ROA, ROE, BOPO, DER, and NPM ratios. However, there is no significant difference in the LDR value.

Table 2. Mann-Whitney Test between Jago Bank and BTPN Bank

	ROA	ROE	BOPO	NPM	DER	LDR
Sig	0.002	0.001	0.001	0.026	0.001	0.097

The Differences Between Jago Bank and Bukopin Bank

Based on the results of the Mann-Whitney test in Table 3, examining the differences between the Jago Bank and Bukopin Bank groups, it can be observed that for the variables ROA, ROE, NPM, and DER, the significance values are < 0.05, while for the variables BOPO and LDR, the significance values are > 0.05. Therefore, it can be concluded that Jago Bank and Bukopin Bank exhibit significant differences in the ROA, ROE, NPM, and DER ratios. However, there is no significant difference in the BOPO and LDR values.

Table 3. Mann Whitney Test between Jago Bank dan Bukopin Bank

	ROA	ROE	BOPO	NPM	DER	LDR
Sig	0.046	0.046	0.097	0.017	0.001	0.081

The Differences Between BTPN Bank and Bukopin Bank

Based on Table 4, the results of the Mann-Whitney test on the differences between the Jago Bank and BTPN Bank groups reveal that for the variables ROA, ROE, BOPO, NPM, DER, and LDR, the significance values are smaller than 0.05. Therefore, it can be concluded that BTPN Bank and Bukopin Bank exhibit significant differences in the ROA, ROE, BOPO, NPM, DER, and LDR ratios.

Table 4. Mann-Whitney Test between BTPN Bank and Bukopin Bank

	ROA	ROE	BOPO	NPM	DER	LDR
Sig	0.001	0.001	0.004	0.001	0.001	0.003

DISCUSSIONS

The differences in financial performance in the ROA ratio between Jago Bank, BTPN Bank, and Bukopin Bank for the period of 2020-2021.

ROA is a profitability ratio used to assess a bank's ability to generate profit in relation to its total assets. A higher ROA indicates that the bank is more effective in managing its assets to generate profit [9]. Based on the results of the data analysis, there are differences in financial performance in the ROA ratio between Jago Bank, BTPN Bank, and Bukopin Bank. The highest level of ROA among the three banks is observed in BTPN Bank, followed by Jago Bank and Bukopin Bank. This indicates that BTPN Bank is capable of effectively managing its assets compared to Bukopin Bank and Jago Bank. BTPN Bank has a positive ROA value, although it exhibits fluctuations during the pandemic period. BTPN Bank manages its assets, which primarily come from loans. This can be observed from the performance of BTPN Bank, which has been able to increase its net profit by selectively disbursing loans, thereby maintaining good credit quality. This is evident in the years 2020 and 2021, where the disbursement of loans for corporate and Islamic segments experienced growth.

Jago Bank has not been able to effectively manage its assets, resulting in frequent losses. However, by the end of the third quarter of 2021, Jago Bank was able to generate profit supported by strong credit growth due to its collaboration with digital retail [6]. On

the other hand, Bukopin Bank has not been able to sustain its performance in asset management to generate profit, leading to losses caused by deteriorating credit quality.

The differences in financial performance in the ROE ratio between Jago Bank, BTPN Bank, and Bukopin Bank for the period of 2020-2021.

BTPN Bank demonstrates more efficient financial performance in terms of ROE by effectively managing its equity compared to Jago Bank and Bukopin Bank. Additionally, this difference also arises from the increase in equity, resulting in increased profitability for shareholders' investments in the banking sector. The higher the value of the ROE ratio, it can be said that the banking institution is more efficient in managing its total equity to generate profits in a given period [9].

BTPN Bank is capable of managing investments from shareholders and generating net earnings per share. This can be observed from the positive values of the ROE ratio in the second quarter of 2020 through the fourth quarter of 2021. On the other hand, Jago Bank only managed to achieve a positive ROE value in the fourth quarter of 2021. Jago Bank has made efforts to increase its equity by conducting a rights issue. However, it has not yet been able to generate profits due to investments in technology, application development, and recruitment of new talents, the results of which can only be enjoyed in the future [6]. Meanwhile, Bukopin Bank only managed to show a positive ROE value in the second quarter of 2020 and the second quarter of 2021 and tended to experience losses despite an increase in equity.

The differences in financial performance in the BOPO ratio between Jago Bank, BTPN Bank, and Bukopin Bank for the period of 2020-2021.

The higher the value of the BOPO ratio, the less efficient the operational activities of a bank [9], [10]. Based on the data, BTPN Bank exhibits an efficient proportion between operational expenses and operational income. The Mann-Whitney test shows that there is no difference in the financial performance of the BOPO ratio between Jago Bank and Bukopin Bank. Both banks have high operational expenses due to the increased depreciation of financial assets.

Jago Bank exhibits inefficient performance, as its operational expenses often exceed its income. This is mainly attributed to high interest expenses, labor costs, personnel expenses, general administrative expenses, and provisions for non-performing assets, which consistently increase every quarter. Bukopin Bank tends to have operational expenses that exceed its income, which will affect its overall profitability. The high operational expenses of Bukopin Bank are influenced by increased expenses such as interest expenses, commission expenses, provisions for non-performing assets, general expenses, labor costs, fair value changes, and premiums for government guarantee programs.

The differences in financial performance in the NPM ratio between Jago Bank, BTPN Bank, and Bukopin Bank for the period of 2020-2021.

This occurs due to the fluctuations in total banking income, which in turn affects the net profit generated. Interest expenses and selective lending also influence the magnitude of interest income. The larger the NPM ratio, the more productive the banking performance can

be considered [10]. Jago Bank only managed to have productive financial performance in the fourth quarter of 2021, despite experiencing losses previously. In that quarter, Jago Bank managed to increase its loan disbursement to obtain a larger increase in interest income. This was supported by Shariah and corporate financing, along with other digital financial services [6]. Jago Bank also reduced interest costs as an effort to increase loan disbursement.

BTPN Bank exhibits productive NPM performance due to its proportional operational expenses achieved by reducing interest costs. Additionally, BTPN Bank practices selective lending to reduce the risk of non-performing loans. On the other hand, Bukopin Bank experiences fluctuating and declining performance. This is attributed to the high loan disbursement that is not proportionate to the funding received. Bukopin Bank also has a high non-performing loan ratio, requiring special attention to address the issue. This certainly affects the profitability of Bukopin Bank, which continues to decline. Based on the given explanation, it can be concluded that BTPN Bank exhibits better financial performance in terms of NPM in generating profits compared to Jago Bank and Bukopin Bank.

The differences in financial performance in the DER ratio between Jago Bank, BTPN Bank, and Bukopin Bank for the period of 2020-2021.

This occurs due to the increase in equity, leading to an increase in bank debt. This debt increase is driven by the desire of banks to generate more profit through debt utilization. The value of the DER ratio indicates the level of financial independence of a bank, which is related to debt. The higher the value of the DER ratio, the lower the ability of the bank to pay the dividend payout ratio to shareholders [9], [10]. Jago Bank is able to control its total debt in relation to its total equity, ensuring that it does not exceed the safe standard limit of the DER ratio [6]. BTPN Bank has a high level of debt, as evidenced by the period from the second quarter of 2020 to the fourth quarter of 2021, which exceeds 100%. On the other hand, Bukopin Bank has the highest DER ratio value and is potentially facing bankruptcy.

The differences in financial performance in the LDR ratio between Jago Bank, BTPN Bank, and Bukopin Bank for the period of 2020-2021.

According to the Mann-Whitney test, the financial performance in the LDR ratio of Jago Bank shows similarities with BTPN Bank and Bukopin Bank. However, there are differences in financial performance in the LDR ratio between Bukopin Bank and BTPN Bank. A high *Loan to Deposit Ratio (LDR)* indicates that the amount of deposits from the public invested in loans is increasing, resulting in lower liquidity levels [9]. If the LDR exceeds the safe limit set by the Financial Services Authority (OJK), it indicates a lower ability of the bank to repay its obligations and a decreased level of liquidity for the bank [10].

Government policies aimed at mitigating the impact of the Covid-19 pandemic on the economy have encouraged banks to restructure loans. As a result of this policy, banks have become more selective in lending [3]. The higher growth of Third-Party Funds (DPK) compared to loan growth has led to a decrease in the LDR ratio from the previous year. The ongoing Covid-19 pandemic has compelled banks to continuously adapt, both in terms of their business plans and overall internal activities. Therefore, banks continue to make adjustments to long-term plans for sustainable financial action programs [3].

Jago Bank has managed to increase its loan disbursement significantly, supported by

financing activities. Jago Bank is also actively collaborating with digital financial services applications such as mutual funds, Bibit, and Stockbit [6]. BTPN Bank has a high level of loan disbursement. However, BTPN Bank always prioritizes caution in loan disbursement, aiming to minimize non-performing loan risks and maximize interest income.

Meanwhile, both Jago Bank and Bukopin Bank have similarities in providing high levels of loan disbursement to customers. Loan disbursement has seen significant growth for most of 2021 compared to the previous year, alongside the continued high growth of Third-Party Funds (DPK). However, Bukopin Bank has experienced a significant increase in non-performing loans, particularly in the service, trade, and agricultural sectors, due to a lack of selectivity in loan disbursement.

CONCLUSION

There are significant differences in financial performance in terms of the ROA, ROE, BOPO, NPM, and DER ratios between Jago Bank and BTPN Bank for the period of 2020-2021. However, there is no difference in financial performance in the LDR ratio.

There are significant differences in financial performance between Jago Bank and Bukopin Bank in terms of the ROA, ROE, NPM, and DER ratios for the period of 2020-2021. However, there is no significant difference in the BOPO and LDR ratios.

The financial performance of BTPN Bank and Bukopin Bank for the period of 2020-2021, overall across the six ratios of ROA, ROE, BOPO, NPM, DER, and LDR, resulted in significant differences.

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