
The Impact of Covid-19 on Financial Structure and Performance: A Comparative Study of Conventional Banks Versus Islamic Banks

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Abstract:

The COVID-19 pandemic that began in 2019 has had a significant impact on the banking sector in Indonesia, both conventional (BUK) and sharia (BUS). This study aims to compare the impact of the COVID-19 pandemic on the financial structure and performance of the two types of banks over three periods: before the pandemic (2017-2019), during the pandemic (2020-2021), and when the pandemic began to decline (January-June 2022). The research method used is quantitative type with secondary data sources from the financial statements of BUK and BUS. The variables analysed include capital adequacy ratio (CAR), non-performing loan ratio (NPL/NPF), loan-to-deposit ratio (LDR/FDR), profitability (ROA and NIM/NI), operational efficiency (BOPO), and third-party fund (DPK) growth. The results showed that the COVID-19 pandemic had a significant impact on the decline in the financial performance of BUK, especially on profitability and operational efficiency ratios. In contrast, BUS showed a higher level of resilience by maintaining stability in several financial indicators of liquidity and operational efficiency. The research concludes that differences in operational systems between BUK and BUS resulted in different responses to the crisis, with BUS being better able to manage risk and financial stability during the pandemic.

Keywords: *Conventional Commercial Banks, Islamic Commercial Banks, Financial Structure, Financial Performance*

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1. Introduction

In late 2019, the SARS-Cov2 virus was detected in China and spread globally, causing WHO to declare the Covid-19 pandemic on March 9, 2020. As of June 1, 2022, global cases reached 527,603,107 with 6,290,452 deaths. In Indonesia, there were 6,055,341 cases and 156,594 deaths. The development of confirmed Covid-19 cases in Indonesia from 2020 to June 2022, from March 2020 to June 2021, confirmed Covid-19 cases increased, then in the period July - December 2021 there was a decrease and in January 2022 until mid-week II February 2022 there was an increase again and then in the third week of February 2022 or as of February 21, 2022, Covid-19 cases again decreased from 389,727 cases in the second week of February 2022 to 341,889 cases and continued to decline until as of May 30, 2022, there were only 926 Covid-19 cases (Al-otaibi, Nor, Yusri, & Guzaiz, 2024; Archanskaia, Canton, Hobza, Nikolov, & Simons, 2023; EROL, 2022; Kodama, Morgan, Azhgaliyeva, Trinh, & Kim, 2024; Taera et al., 2023).

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The significant increase in Covid-19 cases was followed up by the Indonesian Government by declaring a national disaster status on April 13, 2020, which was then followed by restrictions on community social activities, thus having a multi-sectoral impact (Amewu, Armah, Kuttu, & Aye Kusi, 2024; Duguleană, Duguleană, & Deszke, 2024; McCurdy, Fletcher, & Alligood, 2023; Morsy, 2020). The economies of various countries experienced a significant decline and economic performance experienced a decline for almost 20 years in terms of growth and development.(Parsoya, 2021). Likewise in Indonesia, the Covid-19 pandemic has caused the Indonesian economy to experience significant pressure with unprecedented impacts.(Bank Indonesia, 2020). In the 2020 period, the Indonesian economy was recorded as negative at 2.07% or the lowest when compared to economic growth in the 2015-2019 period.

Banking, which is one of the industries with a significant contribution to the Indonesian economy, is also not free from the impact of the Covid-19 pandemic. The development of the performance of general banks in Indonesia before and during the Covid-19 pandemic and when the Covid-19 pandemic began to decline in Figure 1

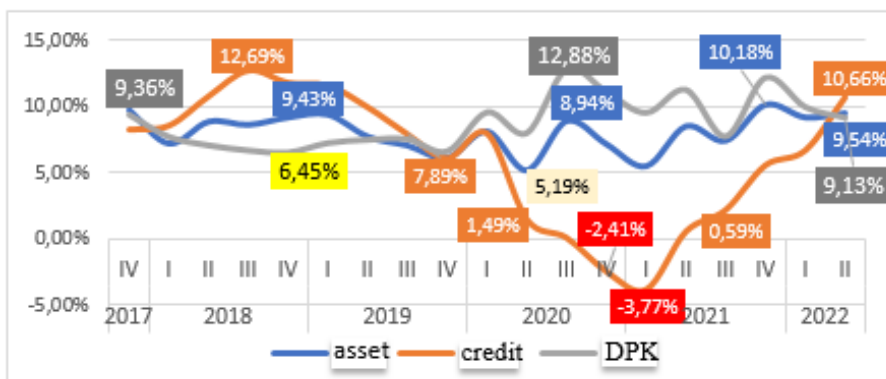


Figure 1. Trend of Asset, DPK and Credit Growth of Commercial Banks/BU in Indonesia (yoy) Period December 2017 to June 2022

Source: OJK Quarterly Report, processed.

Figure 1 shows that BU assets in Q2 and Q3 2020 only grew by 5.19% and 8.94%, lower than the average growth of 9.37% in 2017-2019. This asset growth was driven by an increase in Third Party Funds (TPF) which averaged 8.63% in 2017-2019, and despite the pandemic, TPF grew by 12.88% in Q3 2020. This increase in TPF shows that business actors are postponing expansion and people prefer to save rather than spend on consumptive things.(OJK, 2020). The Covid-19 pandemic has caused BU credit/financing growth to slow down, with negative figures of -2.41% in Q4 2020 and -3.77% in Q1 2021, respectively. However, along with the decline in Covid-19 cases since Q1 2021, BU assets, DPK, and credit have begun to recover, recording growth of 10.66%, 9.13%, and 9.54% in Q2 2022, respectively. The performance of Conventional Commercial Banks (BUK) and Sharia Commercial Banks (BUS) in Indonesia before, during, and after the pandemic is as follows:

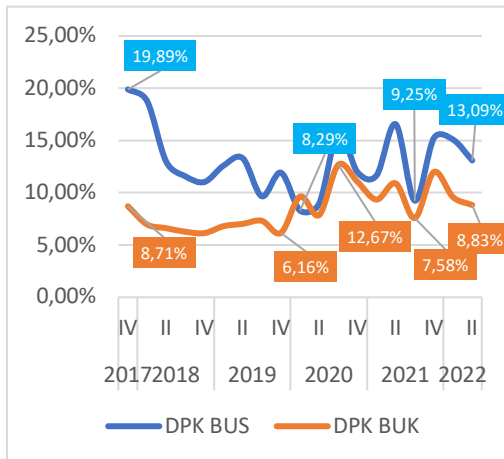


Figure 2. Growth Trend in BUS & BUK TPF for the period December 2017 to June 2022

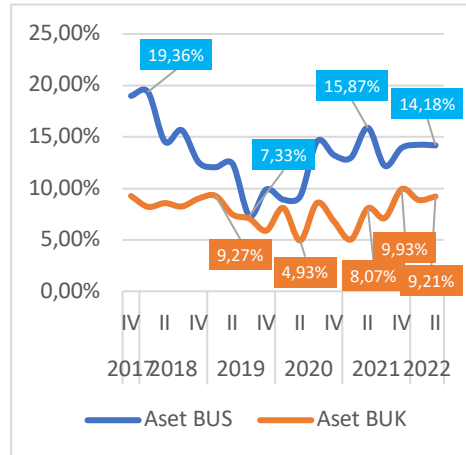


Figure 3. BUS & BUK Asset Growth Trends for the Period December 2017 to June 2022

Source: OJK Quarterly Report, Processed Data

Figures 2 and 3 show that the growth of BUS assets and DPK was higher than BUK before and during the Covid-19 pandemic. From 2017-2019, BUS asset growth averaged 13.64%, decreased to 12.61% in 2020-2021, and increased again to 14.20% in 2022. BUK asset growth averaged 8.11% from 2017-2019, decreased to 7.32% in 2020-2021, and increased to 9.02% in 2022. This growth was driven by an increase in DPK, with average DPK growth of BUS and BUK of 13.53% and 6.89% in 2017-2019, 12.22% and 10.13% in 2020-2021, and 14.09% and 9.20% in 2022.

Based on the data above, it shows the **gap phenomenon** that it is known that there is a phenomenon that BU performance during the Covid-19 pandemic has slowed down, as reflected in the slow growth of assets and credit/financing as well as a decrease in financial ratios. In addition, the growth of assets, DPK and credit/financing in BUS generally showed higher growth compared to BUK. Several financial ratios of BUS and BUK also showed the impact of the Covid-19 pandemic both during the Covid-19 pandemic and when Covid-19 began to decline.

This research is to fill **research gap** in related literature the impact of the financial crisis including the Covid-19 crisis on banking performance. Based on previous research, there has been much discussion regarding the impact of the financial crisis including the Covid-19 crisis on banking performance, however, no research has been found on the impact of Covid-19 on the performance of all BUs in Indonesia including comparing the performance of BUS and BUK in the period before Covid-19 (2017-2019), during the Covid-19 pandemic (2020-2021) and when the Covid-19 pandemic experienced a decline (Jan-June 2022). The following is a summary table of this research gap:

Table 1. Summary of Previous Research Objects and Research Gaps

Topics Researched	Researcher	Research Object
Financial Resilience of BUS in the Middle East Region: A Comparative Study with BUK During the Arab Crisis	(H El-Chaarani & Ragab, 2018)	<ol style="list-style-type: none"> 1. 29 (twenty nine) BUS and 186 (one hundred and eighty six) BUK in the Middle East Region. 2. The 2010-2015 period is divided into 3 phases, namely: <ol style="list-style-type: none"> a. Stable Phase (2010 & 2013). b. Political Crisis Phase (2011 & 2012). c. Economic Crisis Phase (2014 & 2015)
COVID-19, liquidity and financial health.	(Karim, Shetu, & Razia, 2021)	<ol style="list-style-type: none"> 1. 30 (thirty) banks in Bangladesh. 2. Period 2019-2020.
Bank Resilience to Pressure caused by Covid-19.	(Ghosh & Saima, 2021)	<ol style="list-style-type: none"> 1. 18 (eighteen) banks registered in the Bangladesh Capital Market. 2. March 26, 2020 – December 31, 2020.
Financial Structure and Performance of BUS during Covid-19: Comparative Study with BUK.	(Hani El-Chaarani, El-Ismail, El-Abiad, & El-Deeb, 2022)	<ol style="list-style-type: none"> 1. 45 (forty five) BUS and 67 (sixty seven) BUK in the Middle East region. 2. Period 2017, 2018, 2019 and 2020.

Based on table 1, it can be explained that based on previous research as mentioned above, it is known that research on the impact of Covid-19 on the financial condition and performance of banks has been widely conducted. However, **the novelty** of this research is by referring to existing literature, research on the impact of Covid-19 on the performance of all BUs registered in Indonesia has not been conducted. This research period also has differences with previous studies in that it will present the financial structure and performance of BUs in 3 (three) periods, namely: (i) before the Covid-19 pandemic (2017-2019); (ii) during the Covid-19 pandemic (2020-2021); and (iii) when Covid-19 cases began to decline (Jan-June 2022). In addition, a comparative study of the impact of Covid-19 on the banking system was conducted, namely between BUK and BUS. Based on this, research related to the above is considered interesting to be carried out with phenomena and research gaps as guidelines in order to analyze and present solutions. This study aims to compare the impact of the COVID-19 pandemic on the financial structure and performance of the two types of banks over three periods: before the pandemic (2017-2019), during the pandemic (2020-2021), and when the pandemic began to decline (January-June 2022).

The problem in this study is the decline in performance and financial conditions of BU in Indonesia during the Covid-19 pandemic, where performance began to improve at the end of 2021 with positive credit growth. The performance and financial conditions of BUS and BUK were affected by the pandemic, with higher asset, DPK, and credit growth in BUS. In addition, there is a research gap because there has been no research that discusses the impact of Covid-19 on the performance and financial conditions of all BU in Indonesia, as well as a comparison of the performance of BUS and BUK before, during, and after the pandemic. Based on this phenomenon, the researcher formulates the following questions:

1. Are the financial structure and performance of each BUK and BUS different between the period before and during the Covid-19 pandemic? with the following questions in detail:

- a. Are the CAR, NPL, LDR, ROA, NIM and BOPO ratios and BUK's DPK growth different before and during the Covid-19 pandemic?
- b. Are the CAR, NPF, FDR, ROA, NOM and BOPO ratios and BUS DPK growth different before and during the Covid-19 pandemic?
2. Are the financial structure and performance of each BUK and BUS different between the period during the Covid-19 pandemic and the period when the Covid-19 pandemic began to decline? with the following questions in detail:
 - a. Is there a difference in the CAR, NPL, LDR, ROA, NIM and BOPO ratios and the growth of BUK DPK between the period during the Covid-19 pandemic and the period when the Covid-19 pandemic began to decline?
 - b. Is there a difference in the CAR, NPF, FDR, ROA, NOM and BOPO ratios and the growth of BUS DPK between the period during the Covid-19 pandemic and the period when the Covid-19 pandemic began to decline?
3. Are there differences in financial structure and performance between BUK and BUS during the period before, during and during the Covid-19 pandemic? with the details of the research questions as follows:
 - a. Are the CAR, NPL, LDR, ROA, NIM and BOPO ratios and DPK growth of BUK different from BUS before the Covid-19 pandemic?
 - b. Are the CAR, NPL, LDR, ROA, NIM and BOPO ratios and DPK growth of BUK different from BUS during the Covid-19 pandemic?
 - c. Are the CAR, NPL, LDR, ROA, NIM and BOPO ratios and DPK growth of BUK different from BUS when the Covid-19 pandemic started to decline?

2. Theoretical Background

Differences in Financial Structure and Performance of Each BUK and BUS between the Period Before and During the COVID-19 Pandemic

The crisis impacted all companies, including banks. Chapter II explains that crises emerge suddenly, affecting banks' financial conditions and requiring adaptation for survival. The Covid-19 pandemic triggered a multi-sector crisis in banking. Research by El-Chaarani & Ragab (2018) indicated that the Middle Eastern political crisis hurt BUS performance, while Karim et al. (2021), (Alzarooni, Al-Shboul, & Maghyereh, 2024; Erol, 2023; Nakpodia, Sakariyahu, Fagbemi, Adigun, & Dosumu, 2024; Włodarczyk, Szczepańska-Woszczyna, & Urbański, 2024; Wu et al., 2024; Zhang & Neupane, 2024) found that the pandemic worsened financial health in Bangladeshi banks. Overall, the crisis led to declines in assets, credit, and key ratios for BUK and BUS in Indonesia. The researchers hypothesized that the structure and financial performance of BUK and BUS differed before and during the pandemic.

H1a, H1b, H1c, H1d, H1e, H1f, H1g: CAR ratio, DPK growth, LDR, NPL, NIM, ROA, and BOPO BUK differ between before and during the Covid-19 pandemic.

H2a, H2b, H2c, H2d, H2e, H2f, H2g: CAR ratio, DPK growth, LDR, NPL, NIM, ROA, and BOPO BUS differ between before and during the Covid-19 pandemic.

Differences in the structure and financial performance of each BUK and BUS between the time of the Covid-19 pandemic and when the Covid-19 pandemic began to decline

To deal with the Covid-19 pandemic crisis, BUK and BUS management took corrective and risk mitigation steps to maintain financial performance and prevent bankruptcy. It is hoped that these steps will be effective in overcoming the crisis. Although research on the differences in BUK and BUS performance during and after the crisis has not been found, performance indicators such as assets, DPK, and credit showed improvement in Q4 2021. The CAR, ROA, NIM, BOPO, and NPL ratios also increased (Archanskaia et al., 2023; Hassan et al., 2024; Nakpodia et al., 2024; Taera et al., 2023; Wu et al., 2024). Based on this, the researcher formulated a hypothesis that the financial structure and performance of BUK and BUS differed between the pandemic and the downturn.

H3a, H3b, H3c, H3d, H3e, H3f, H3g: CAR ratio, DPK growth, LDR, NPL, NIM, ROA, and BOPO BUK are different during the Covid-19 pandemic and when the Covid-19 pandemic begins to decline.

H4a, H4b, H4c, H4d, H4e, H4f, H4g : The CAR ratio, DPK growth, LDR, NPL, NIM, ROA, and BOPO BUS were different during the Covid-19 pandemic and when the Covid-19 pandemic began to decline.

The differences in financial structure and performance between BUK and BUS during the period before, during and during the Covid-19 pandemic decreased.

Differences in banking systems result in differences in bank operational activities. BUK operates conventionally, with revenues and costs dominated by interest. In contrast, BUS must follow sharia principles, with revenues and costs dominated by profit sharing (Duguleană et al., 2024; Erol, 2023; EROL, 2022; Kodama et al., 2024; McCurdy et al., 2023; Zhang & Neupane, 2024), (Al-otaibi et al., 2024; Alzarooni et al., 2024; Amewu et al., 2024; Li, Wang, Aizhan, & Karimzade, 2023; Morsy, 2020; Włodarczyk et al., 2024). Based on these differences and previous research, the researcher formulated a hypothesis that the financial structure and performance of BUK and BUS differ before, during, and after the Covid-19 pandemic.

H5a, H5b, H5c, H5d, H5e, H5f, H5g: CAR ratio, DPK growth, LDR, NPL, NIM, ROA, and BOPO of BUK are different from BUS before the Covid-19 pandemic.

H6a, H6b, H6c, H6d, H6e, H6f, H6g: The CAR ratio, DPK growth, LDR, NPL, NIM, ROA, and BOPO of BUK and BUS are different during the Covid-19 pandemic.

H7a, H7b, H7c, H7d, H7e, H7f, H7g: The CAR ratio, DPK growth, LDR, NPL, NIM, ROA, and BOPO of BUK and BUS differed when the Covid-19 pandemic began to decline.

Theoretical Framework

Based on the results of previous research, the theoretical framework and 49 (forty-nine) hypotheses referred to, the following is the theoretical framework in this research.

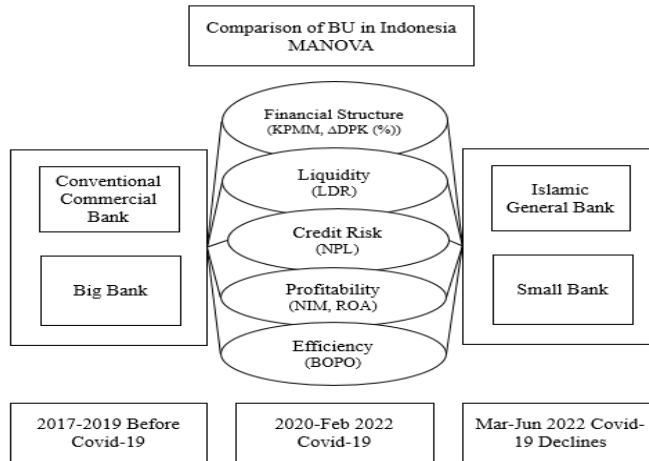


Figure 4. Framework of Thought

Based on Figure 4, it is explained that this study uses the Multivariate Analysis of Variance (MANOVA) test to compare the performance of BU in Indonesia by comparing the performance of BUK and BUS before Covid-19, during Covid-19 and when Covid-19 declined.

3. Methodology

Research Design

This research employs a quantitative design to analyze differences in the financial structure and performance of BUK and BUS before and during the Covid-19 pandemic, as well as during the pandemic's decline. It also examines differences between BUK and BUS across these periods.

Types and Sources of Research Data

The type of data source used in the research is a secondary data source in the form of a BU publication report with time-series data which includes data on certain financial items and BU financial performance ratios. According to (Nuryadi, Astuti, Utami, & Budiantara, 2017) time-series data is data that can explain certain conditions from time to time or in a certain period. In this study, using time-series data with a period from 2017 to June 30, 2022.

Population and Sample

The population in this study is all BU in Indonesia, which in June 2022 the number of BU recorded was 107 (one hundred and seven) Banks. The sample in the study was set the same as the population, namely all BU in Indonesia, which in June 2022 the number of BUK recorded was 95 (ninety five) banks and BUS recorded was 12 (twelve) banks. The research period is divided into 3 (three) periods, namely i) before

the Covid-19 pandemic (2017-2019); ii) during the Covid-19 pandemic (2020-2021); and iii) when Covid-19 cases began to decline (Jan-June 2022).

Method of collecting data

The data presented and processed is secondary data from BU publication reports and is sourced from the respective BU and OJK websites as well as other media that are considered relevant in supporting the data collection process.

Data Analysis Techniques

The analysis technique used in the research is the Multivariate Analysis of Variance (MANOVA) method with a calculation tool using SPSS Statistics version 26. This is based on the researcher's analysis of the number of independent variables and the number of dependent v

4. Empirical Findings/Result

Comparison of BUK Financial Structure and Performance Before and During the Covid-19 Pandemic.

Measurement of BUK's financial structure and performance uses several variables, namely the CAR ratio and DPK Growth to measure BUK's financial structure; LDR ratio, NPL ratio, NIM ratio, ROA ratio, and BOPO ratio to measure BUK's financial performance. The following is data on BUK's financial structure and performance before the Covid-19 pandemic (2017, 2018 and 2019) and during the Covid-19 pandemic (2020 and 2021).

Table 2. Trends in Financial Structure and Performance Data of BUK 2017-2021

Variables	2017	2018	2019	2020	2021
CAR	23.18%	22.97%	23.40%	23.89%	25.67%
DPK Growth	8.71%	6.14%	6.16%	11.05%	11.99%
LDR	90.04%	94.78%	94.43%	82.54%	77.13%
NPL	2.59%	2.37%	2.53%	3.06%	3.00%
NIM	5.32%	5.14%	4.91%	4.45%	4.51%
ROA	2.45%	2.55%	2.47%	1.59%	1.84%
BOPO	78.64%	77.86%	79.39%	86.58%	83.58%

Based on the table above, there are differences in the structure and financial performance of BUK before and during the Covid-19 pandemic, which are detailed as follows:

1. Financial Structure: The CAR ratio increased from an average of 23.19% before the pandemic (2017-2019) to 24.78% during the pandemic. DPK growth also increased from 7.00% before the pandemic to 11.52% during the pandemic, indicating that BUK was able to manage risks well and continue to gain public trust even in uncertain conditions.
2. Financial Performance: BUK's intermediation function declined, reflected in the LDR ratio which fell to 82.54% (2020) and 77.13% (2021), due to selective credit distribution. The NPL ratio increased from 2.50% (2017-2019) to 3.06% and 3.00% in 2020 and 2021, indicating problems in debtors' ability to pay. This increase in credit risk has a negative impact on BUK's profitability and efficiency, as seen from the NIM, ROA, and BOPO ratios.

To find out the significant differences in the structure and financial performance of BUK before and during the pandemic, a Manova test was conducted. The results show:

1. Simultaneous tests on the variables CAR, DPK growth, LDR, NPL, NIM, ROA, and BOPO before, during, and after the pandemic showed a sig. <0.05, indicating a significant difference.
2. Further Manova tests revealed:
 - There are significant differences in CAR, NIM, and ROA between the periods before and during the pandemic.
 - There was no significant difference in the growth of DPK, LDR, NPL, and BOPO between the two periods.

Comparison of BUS Financial Structure and Performance Before and During the Covid-19 Pandemic

Measurement of BUS financial structure and performance uses several variables, namely CAR ratio and DPK Growth to measure BUS financial structure; LDR ratio, NPL ratio, NIM ratio, ROA ratio, and BOPO ratio to measure BUS financial performance. The following is data on BUS financial structure and performance before the Covid-19 pandemic (2017, 2018 and 2019) and during the Covid-19 pandemic (2020 and 2021).

Table 3. Trends in BUS Financial Structure and Performance Data 2017-2021

Variables	2017	2018	2019	2020	2021
CAR	17.91%	20.12%	20.59%	21.64%	25.71%
DPK Growth	19.89%	11.03%	11.92%	11.97%	15.24%
LDR	85.34%	86.11%	85.27%	82.40%	76.33%
NPL	3.87%	2.85%	3.11%	3.08%	2.57%
NIM	1.27%	1.74%	2.01%	1.55%	1.83%
ROA	1.17%	1.59%	1.83%	1.54%	1.72%
BOPO	89.62%	85.49%	82.52%	83.63%	81.01%

Based on the table above, there are differences in the structure and financial performance of BUS before and during the Covid-19 pandemic, which are detailed as follows:

1. Financial Structure: The CAR ratio increased from an average of 19.54% before the pandemic (2017-2019) to 23.67% during the pandemic. DPK growth also increased, reaching 15.24% in 2021, indicating that BUS is able to manage risks well and still gain public trust even in uncertain conditions.
2. Financial Performance: The intermediation function of BUS declined, with the LDR ratio dropping to 82.40% (2020) and 76.33% (2021) due to selective financing distribution. However, the NPL ratio decreased from 3.28% (2017-2019) to 2.83% (2020-2021), indicating effective credit risk mitigation. Profitability performance, as reflected in the NIM and ROA ratios, remained stable, while the BOPO ratio improved from 85.88% (2017-2019) to 82.32% (2020-2021), indicating good operational efficiency.

The Manova test was conducted to determine significant differences in the structure and financial performance of BUS before and during the pandemic, with the following results:

1. Simultaneous test shows no significant difference in all variables (CAR, DPK growth, LDR, NPL, NIM, ROA, and BOPO) between the periods before, during, and after the pandemic, with a sig. value > 0.05 .
2. The Manova test on variables before and during the pandemic also showed no significant differences across the variables tested.

Comparison of BUK's Financial Structure and Performance During the Pandemic and When the Covid-19 Pandemic Started to Decrease

Measurement of BUK's financial structure and performance uses several variables, namely the CAR ratio and DPK Growth to measure BUK's financial structure; LDR ratio, NPL ratio, NIM ratio, ROA ratio, and BOPO ratio to measure BUK's financial performance. The following is data on BUK's financial structure and performance during the Covid-19 pandemic (2020 and 2021) and when the Covid-19 pandemic declined (2022).

Table 4. Trends in Financial Structure and Performance Data of BUK 2020-2022

Variables	2020	2021	2022
CAR	23.89%	25.67%	24.66%
DPK Growth	11.05%	11.99%	8.83%
LDR	82.54%	77.13%	81.25%
NPL	3.06%	3.00%	2.86%
NIM	4.45%	4.51%	4.69%
ROA	1.59%	1.84%	2.37%
BOPO	86.58%	83.58%	78.46%

Based on the table above, there are differences in the structure and financial performance of BUK between the time of the Covid-19 pandemic and when the pandemic began to decline, which are detailed as follows:

1. Financial Structure: The CAR ratio decreased slightly from 24.78% (2019-2020) to 24.66% as the pandemic subsided. DPK growth also decreased from 11.52% (2020-2021) to 8.83% (2022), although it was still higher than the average of 7.00% before the pandemic. This shows that BUK is able to manage risks well, even though people are starting to use funds for other financial instruments.
2. Financial Performance: BUK's intermediation function has increased, with the LDR ratio recorded at 81.25% (2022), higher than 79.83% (2020-2021), indicating that credit distribution is starting to be positive (10.41% in June 2022). The NPL ratio also decreased from 3.03% (2020-2021) to 2.86% (2022), indicating an improvement in debtors' repayment capacity. This increase has a positive impact on BUK's profitability and efficiency, as reflected in the improving NIM, ROA, and BOPO ratios (C. Fan, Bae, & Liu, 2024; M. Fan et al., 2023; Huang, 2024; Masdupi, Tasman, & Davista, 2018; Restianti T & Agustina L, 2018; Septarini, 2022; Septina, 2022; Ouenniche, & Smedt, 2024).

The Manova test was conducted to determine significant differences in the structure and financial performance of BUK during and after the pandemic. The results show:

1. Simultaneous tests on the CAR, DPK growth, LDR, NPL, NIM, ROA, and BOPO variables show sig. <0.05, indicating a significant difference between the periods before, during, and after the pandemic.
2. Further Manova tests showed no significant differences in all variables between the time of the pandemic and when the pandemic began to decline.

Comparison of BUS Financial Structure and Performance During the Pandemic and When the Covid-19 Pandemic Started to Decrease.

Measurement of BUS financial structure and performance uses several variables, namely the CAR ratio and DPK Growth to measure the BUS financial structure; LDR ratio, NPL ratio, NIM ratio, ROA ratio, and BOPO ratio to measure BUS financial performance. The following is data on the BUS financial structure and performance during the Covid-19 pandemic (2020 and 2021) and when the Covid-19 pandemic declined (2022).

Table 5. Trends in Financial Structure and Performance Data of BUS 2020-2022

Variables	2020	2021	2022
CAR	21.64%	25.71%	25.18%
DPK Growth	11.97%	15.24%	13.09%
LDR	82.40%	76.33%	80.89%
NPL	3.08%	2.57%	2.53%
NIM	1.55%	1.83%	2.34%
ROA	1.54%	1.72%	1.94%
BOPO	83.63%	81.01%	78.37%

Based on the table above, there are differences in the structure and financial performance of BUS between the time of the Covid-19 pandemic and when the pandemic began to decline, which are detailed as follows:

1. Financial Structure: The CAR ratio decreased slightly from 25.71% (2020) to 25.18% as the pandemic subsided. DPK growth also decreased from 13.61% (2020-2021) to 13.09% (2022), indicating that BUS can still manage risks well even though people are starting to use funds for other financial instruments.
2. Financial Performance: The BUS intermediation function showed an increase, with the LDR ratio reaching 80.89% (2022), higher than 79.36% (2020-2021). Financing distribution began to be positive, recorded at 13.99% in June 2022. The NPL ratio also decreased from 2.83% (2020-2021) to 2.53% (2022), indicating an improvement in debtors' ability to pay. This increase had a positive impact on BUS profitability and efficiency, as seen from the improving NIM, ROA, and BOPO ratios.

The Manova test was conducted to determine significant differences in the structure and financial performance of BUS during and after the pandemic. The results show:

1. Simultaneous tests on the CAR, DPK growth, LDR, NPL, NIM, ROA, and BOPO variables show sig. <0.05, indicating a significant difference between the periods before, during, and after the pandemic.
2. Further Manova tests showed no significant differences in all variables between the time of the pandemic and when the pandemic began to decline.

Comparison of Financial Structure and Performance of BUK with BUS before the Covid-19 pandemic.

Measurement of the financial structure and performance of BUK and BUS uses several variables, namely the CAR ratio and DPK Growth to measure the financial structure of BUK and BUS; LDR ratio, NPL ratio, NIM ratio, ROA ratio, and BOPO ratio to measure the financial performance of BUK and BUS. The following is data on the financial structure and performance of BUK and BUS before the Covid-19 pandemic (2017, 2018 and 2019).

Table 6. Trends in Financial Structure and Performance Data of BUK and BUS 2017-2019

Rasio	2017	2018	2019
CAR BUS	17,91%	20,12%	20,59%
CAR BUK	23,18%	22,97%	23,40%
DPK BUS	19,89%	11,03%	11,92%
DPK BUK	8,71%	6,14%	6,16%
FDR BUS	85,34%	86,11%	85,27%
LDR BUK	90,04%	94,78%	94,43%
NPF BUS	3,87%	2,85%	3,11%
NPL BUK	2,59%	2,37%	2,53%
NOM BUS	1,27%	1,74%	2,01%
NIM BUK	5,32%	5,14%	4,91%
ROA BUS	1,17%	1,59%	1,83%
ROA BUK	2,45%	2,55%	2,47%
BOPO BUS	89,62%	85,49%	82,52%
BOPO BUK	78,64%	77,86%	79,39%

Based on the table above, there are differences in the financial structure and performance of BUK and BUS before the Covid-19 pandemic, which are detailed as follows:

1. Financial Structure: BUK's CAR ratio (23.19%) was higher than BUS (19.54%) in the period before the pandemic. Although the average growth of BUS DPK (14.28%) was higher than BUK (7.00%), both banks were still able to manage risks well, demonstrating public trust in BUS and supporting the development of the sharia banking industry in Indonesia.
2. Financial Performance: BUK's intermediation function is higher, with BUK's LDR ratio (93.09%) above BUS's FDR (85.57%), indicating maintained liquidity. BUK's NPL ratio (2.50%) is lower than BUS's NPF (3.28%), indicating good credit risk management, which contributes to BUK's higher profitability, with NIM, ROA, and BOPO ratios of 5.12%, 2.49%, and 78.63%, respectively, while BUS's are only 1.67%, 1.53%, and 85.88%. This shows BUK's operational efficiency is better than BUS's.

To find out the significant differences in the financial structure and performance of BUK and BUS before the pandemic, a Manova test was conducted. The results show:

1. Simultaneous tests on the CAR, DPK growth, LDR, NPL, NIM, ROA, and BOPO variables show a sig. <0.05, indicating a significant difference in the average financial structure and performance of BUK and BUS before the pandemic.
2. Further MANOVA tests showed no significant differences in the CAR ratio, DPK growth, LDR, NPL, ROA, and BOPO, but there were significant differences in the NIM ratio before the pandemic.

Comparison of Financial Structure and Performance of BUK and BUS During the Covid-19 Pandemic.

Measurement of the financial structure and performance of BUK and BUS uses several variables, namely the CAR ratio and DPK Growth to measure the financial structure of BUK and BUS; LDR ratio, NPL ratio, NIM ratio, ROA ratio, and BOPO ratio to measure the financial performance of BUK and BUS. The following is data on the financial structure and performance of BUK and BUS during the Covid-19 pandemic (2020 and 2021).

Table 7. Financial Structure and Performance Data Trends of BUK and BUS 2020-2021

Rasio	2020	2021
CAR BUS	21,64%	25,71%
CAR BUK	23,89%	25,67%
DPK BUS	11,97%	15,24%
DPK BUK	11,05%	11,99%
FDR BUS	82,40%	76,33%
LDR BUK	82,54%	77,13%
NPF BUS	3,08%	2,57%
NPL BUK	3,06%	3,00%
NOM BUS	1,55%	1,83%
NIM BUK	4,45%	4,51%
ROA BUS	1,54%	1,72%
ROA BUK	1,59%	1,84%
BOPO BUS	83,63%	81,01%
BOPO BUK	86,58%	83,58%

Based on the table above, there are differences in the financial structure and performance of BUK and BUS during the Covid-19 pandemic, which are detailed as follows:

1. Financial Structure: BUK's CAR ratio is slightly higher than BUS, but both ratios are still adequate to anticipate risks. The average growth of BUS DPK (13.61%) is higher than BUK's DPK (11.52%), indicating that public trust in both banks remains high.
2. Financial Performance: The intermediation function of BUS and BUK is relatively the same, with LDR ratios of 79.36% and 79.83%, respectively. Despite the decline, this ratio is still in accordance with the provisions and indicates maintained liquidity. The NPF ratio of BUS (2.83%) is lower than the NPL of BUK (3.03%), indicating good credit risk management, especially in 2021. However, the low credit risk of BUS does not increase its profitability; the NIM ratio of BUK (4.48%) is much higher than the NOM of BUS (1.69%), while the ROA ratios of BUK (1.72%) and BUS (1.63%) are relatively the same. BOPO of BUS (82.32%) is lower than BOPO of BUK (85.08%), indicating better cost management at BUS.

This study conducted a Manova Test to determine significant differences in the structure and financial performance of BUK and BUS during the pandemic. The results show:

1. Simultaneous tests on the variables CAR, DPK growth, LDR, NPL, NIM, ROA, and BOPO show sig. <0.05, indicating a significant difference in the average financial structure and performance of BUK and BUS during the pandemic.
2. Further Manova test showed no significant difference in CAR ratio, DPK growth, LDR, NPL, ROA, and BOPO. This result is different from the research of El-Chaarani et al. (2022) which concluded that BUS performance was significantly different from BUK during the Covid-19 crisis, with BUK recording higher

financial performance and liquidity. There was also a significant difference in the NIM ratio before the pandemic.

Comparison of Financial Structure and Performance of BUK with BUS During the Decline of the Covid-19 Pandemic.

Measurement of the financial structure and performance of BUK and BUS uses several variables, namely the CAR ratio and DPK Growth to measure the financial structure of BUK and BUS; LDR ratio, NPL ratio, NIM ratio, ROA ratio, and BOPO ratio to measure the financial performance of BUK and BUS. The following is data on the financial structure and performance of BUK and BUS when the Covid-19 pandemic began to decline (June 2022).

Table 8. Financial Structure and Performance Data Trends of BUK and BUS 2022

Rasio	2022
CAR BUS	25,18%
CAR BUK	24,66%
DPK BUS	13,09%
DPK BUK	8,83%
FDR BUS	80,89%
LDR BUK	81,25%
NPF BUS	2,53%
NPL BUK	2,86%
NOM BUS	2,34%
NIM BUK	4,69%
ROA BUS	1,94%
ROA BUK	2,37%
BOPO BUS	78,37%
BOPO BUK	78,46%

Based on the table above, there are differences in the structure and financial performance of BUK and BUS when the Covid-19 pandemic began to decline, which are detailed as follows:

1. Financial Structure: BUS CAR ratio (25.18%) is slightly higher than BUK (24.66%), and both are considered adequate to anticipate risks. This shows that BUS and BUK are able to manage risks that can cause business failure. BUS DPK growth is also higher, reaching 13.09% compared to 8.83% for BUK, indicating that public trust remains high.
2. Financial Performance: The intermediation function of BUS and BUK is similar, with LDR ratios of 80.89% and 81.25% respectively, indicating maintained liquidity. The NPF ratio of BUS (2.53%) and NPL of BUK (2.86%) indicate good credit risk management. The NIM and ROA ratios of BUK are higher (4.69% and 2.37%) compared to BUS (2.34% and 1.94%). BOPO of BUS and BUK are relatively the same (78.37% and 78.46%), indicating that BUS revenue management needs to be improved.

5. Discussion

The findings of this study highlight significant differences in the financial structure and performance between Conventional Commercial Banks (BUK) and Sharia Commercial Banks (BUS) during the declining phase of the COVID-19 pandemic. The MANOVA test results revealed a substantial disparity in the average financial metrics, specifically in the Net Interest Margin (NIM), while other indicators such as

Capital Adequacy Ratio (CAR), Deposit Growth (DPK), Loan-to-Deposit Ratio (LDR), Non-Performing Loan (NPL), Return on Assets (ROA), and Operational Efficiency Ratio (BOPO) showed no significant differences. These results align with previous studies, such as Alzarooni et al. (2024), which noted distinct responses between conventional and Islamic banking systems to crises like the COVID-19 pandemic, driven by their underlying operational and financial principles.

The observed significant difference in NIM underscores the profitability challenges faced by BUS compared to BUK. This is consistent with El-Chaarani et al. (2022), who emphasized that Islamic banks often exhibit lower profitability margins during crises due to the limitations imposed by sharia principles, such as restrictions on interest-based revenue. The findings suggest that BUS must re-evaluate their revenue management strategies, particularly in asset utilization and profit-sharing mechanisms, to enhance profitability and competitiveness. For BUK, the focus should remain on improving operational efficiency and interest expense management, as highlighted by Erol (2023), to sustain their profitability during periods of financial recovery.

This study's limitations provide opportunities for further exploration. The analysis, constrained to BUK and BUS, excludes other significant banking sectors, such as Sharia Business Units (UUS), Rural Banks (BPR), and Sharia Rural Banks (BPRS). Expanding the sample to include these entities could provide a more comprehensive understanding of the banking sector's resilience and recovery mechanisms. Furthermore, the short observation period, limited to two quarters post-pandemic, restricts insights into the long-term impacts of the pandemic and subsequent recovery efforts, a concern also noted by Amewu et al. (2024) in examining the prolonged economic implications of crises.

Additionally, this study focuses on quantitative financial ratios without delving into qualitative factors such as management strategies and regulatory interventions. Future research could adopt a mixed-methods approach to capture the nuanced influences of governance and policy measures, as suggested by Kodama et al. (2024). Another promising area for exploration is the relationship between sharia compliance and BUS performance during crises. As highlighted by El-Chaarani and Ragab (2018), sharia principles can influence risk management and financial stability, offering a unique perspective on Islamic banks' resilience.

From a practical standpoint, the results hold valuable insights for stakeholders. For BUS management, addressing the NIM disparity by improving profit-sharing contracts and operational strategies is critical for enhancing financial performance and aligning with competitive benchmarks. BUK management, on the other hand, should focus on sustaining their profitability by optimizing interest income and operational efficiency, particularly in adapting to post-crisis challenges. Regulators can leverage these findings to strengthen policies that support the banking sector's recovery, emphasizing risk management standards and financial literacy campaigns, as highlighted by Bank Indonesia (2020). These efforts can help bolster public trust in

both conventional and Islamic banking systems, ensuring sustained economic stability and growth.

6. Conclusions

Based on the research findings, several conclusions can be drawn. Before and during the COVID-19 pandemic, BUK exhibited a significant increase in its Capital Adequacy Ratio (CAR), reflecting strong risk management capabilities, although its Third Party Funds (DPK) growth was not statistically significant. In contrast, BUS maintained stable CAR and DPK levels without significant changes. BUK faced a decline in financial performance, particularly in profitability, while BUS showed stability, indicating that BUK was more impacted by the crisis in terms of profitability, though both banks managed to sustain overall good performance. During and after the pandemic, the financial structure and performance of BUK and BUS remained stable. BUK experienced decreases in CAR and DPK, but these changes were not statistically significant, suggesting effective risk management and sustained public trust. Improvements were observed in BUK's intermediation function, profitability, and efficiency, with increases in Loan to Deposit Ratio (LDR), Net Interest Margin (NIM), and Return on Assets (ROA), and decreases in Non-Performing Loans (NPL) and Operating Expenses to Operating Income (BOPO). BUS similarly demonstrated financial stability, with notable improvements in its financial ratios as the pandemic subsided.

In terms of comparative analysis, BUK and BUS exhibited notable differences in financial structure and performance across different periods. Before the pandemic, BUK had higher profitability (NIM), CAR, LDR, and ROA, although only the NIM difference was statistically significant. During the pandemic, BUK maintained a higher NIM, though the gap with BUS narrowed. As the pandemic waned, BUS began to close the performance gap with BUK, particularly in NIM, while maintaining lower NPL levels and higher DPK growth. Despite this, BUK retained an edge in profitability and efficiency, with better ROA and BOPO ratios.

For future research, it is recommended to expand the sample coverage to include other banking institutions, such as UUS, BPR, and BPRS, to provide a more comprehensive perspective. Studies could also explore a longer time frame to assess the enduring impacts of the pandemic and the recovery strategies employed. Additionally, future studies should delve deeper into qualitative factors such as managerial strategies, government policies, and the role of sharia principles in influencing the financial performance of BUS. Exploring the causes behind NIM differences, including asset management strategies and operational efficiency, would further enhance the understanding of banking resilience and performance during crises.

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