

# Analysis of Banking Health Before and During Covid 19 Using the RGEC Method

---

## ABSTRACT

**Aims:** This study aims to determine the health condition of the banking sector before and during the Covid-19 pandemic.

**Study design:** This research is included in the quantitative descriptive research to assess the health of the banking sector which publishes annual reports on the website of each bank.

**Place and Duration of Study:** The author uses data on bank financial statements in Indonesia for Bank Groups based on Core Capital (KBMI) one to four for the 2018-2021 period.

**Methodology:** Data were analyzed using the RGEC model (Risk Profile, Good Corporate Governance, Earning, Capital) which measures aspects of risk profile, corporate governance, profitability and capital adequacy.

**Results:** The results of the study concluded that after assessing all aspects of RGEC, it was concluded that at KBMI 1, 3 and 4 banks there were significant differences between banking NPLs before and during Covid-19 while there were no differences in GCG, ROA and CAR. Bank KBMI 2 has no significant differences between banking NPL, GCG, ROA, and CAR before and during Covid-19. The NPL ratio used to measure credit risk or financing provided to third parties shows there is no difference between the average NPL ratio before and during Covid-19.

**Conclusion:** The era of Covid-19 has reduced the soundness of banks, this indicates that banks are less able to maintain stability, efficiency and quality of credit ratios. However, in general, the level of banking during Covid-19 was still in the good category according to Bank Indonesia standards.

*Keywords: [Covid-19, KBMI, Bank Health, and RGEC]*

## 1. INTRODUCTION

Banks are financial institutions whose main activities are collecting funds from the public and channeling these funds back to the public as well as providing other banking services. The type of bank when viewed from the point of view or method of determining the price, both the selling price and the purchase price are divided into two groups, namely Islamic banks and conventional banks. (Putra & Saraswati, 2020). Bank is an institution that functions as a financial intermediary (financial intermediary) between parties who have excess funds and those who lack funds. As an intermediary institution, banks play an important role in collecting funds and channeling them to the real sector in order to encourage economic growth (agents of development). Banking also plays a role as an organizing institution and service provider in the field of finance and payment system traffic (agent of services).

Regulation of the Financial Services Authority Number 4/POJK.03/2016 Concerning the Rating of Commercial Bank Soundness Level explains that through an assessment derived from the results of an analysis of a bank's operational activities, the supervisory authority, in this case the OJK, will be more effective in determining policies and providing evaluations of

performance. have been done. By choosing a healthy bank, it is hoped that it will avoid the risks that are often faced by banks. Bank Indonesia as the Central Bank has an important role in assessing the soundness of banking in Indonesia. The soundness level of a bank is regulated in Bank Indonesia regulation number 6/10/PBI/2004 concerning the rating system for a bank's soundness level using the CAMELS (Capital, Assets, Management, Earning, Liquidity, Sensitivity) method. then changed to Bank Indonesia regulation number 13/1/PBI/2011 concerning the rating system for the soundness of a bank using the RGEC (Risk Profile, Good Corporate Governance, Earnings, and Capital) method. The regulation contains obligations for banks to assess their soundness using a risk-based bank rating approach, both individually and in a consolidated manner.

The RGEC method is effective from 1 January 2012, namely for assessing the soundness of banks for the period ending 31 December 2011 and at the same time revoking PBI No. 6/10/PBI/2004 concerning the Soundness Rating System for Commercial Banks and SE BI No. 6/23/DPNP dated 31 May 2004 concerning the Rating System for Commercial Banks using the CAMELS method (Capital, Asset Quality, Management, Earnings, Liquidity, and Sensitivity to Market Risk) [www.bi.go.id](http://www.bi.go.id). Assessment of health level using the RGEC method contained in PBI No. 13/1/PBI/2011 and SE No. 13/24/DPNP with the assessing factors classified into 4 factors namely Risk Profile, Good Corporate Governance, Earnings, and Capital.

Banks, which are trust-based institutions, are prone to simultaneous withdrawals by customers, therefore, the recurrence of the banking crisis can be expected to occur again (Febrianti & Galuh, 2020). On the other hand, the emergence of COVID-19 as a global pandemic will cause excessive concern so that it can cause effects such as panic buying due to anxiety and worry. The emergence of COVID-19 has an impact on all sectors, especially the economic sector.

*World Economic Forum*(WEF) views the spread of COVID-19 starting to show the impact of COVID-19 on the world economy. Global economic conditions are expected to contract quite deeply in the first quarter of 2020 and begin to recover in the second quarter of 2020 in line with the increasing outbreak of COVID-19. The Financial Services Authority assessed that the stability of the financial services sector until March was still in good condition with the intermediation of the financial services sector still posting positive performance and the risk profile of the financial services industry remained under control even though the economy was depressed due to the spread of COVID-19 in various countries. The World Health Organization (WHO) declared the 2019-2020 coronavirus outbreak a Public Health Emergency International (PHEIC) on 30 January 2020, and a pandemic on 11 March 2020 (Eman, 2020). Data for March 31, 2020 showed that there were 1,528 confirmed cases and 136 deaths. The Covid-19 mortality rate in Indonesia is 8.9%, this figure is the highest in Southeast Asia.

Corona virus or what we usually call Covid-19 is a virus that attacks human respiration, so it has the potential to experience death. This virus has spread to all parts of the world and has claimed many lives, including in Indonesia. As of August 9, 2021 data on total positive cases shows 3.69 million people, 20,709 new cases, and 109 thousand deaths (Covid.go.id, 2021). Termination of employment, which then has an impact on rising unemployment, difficulty finding work, an increase in the number of poor people, these are predictions that have become facts as a result of the Covid-19 outbreak in Indonesia which then has had so much influence in various sectors.

The Covid – 19 pandemic has had an impact on various types of sectors, not only the health sector, but also other sectors, including banking. The Covid-19 pandemic is a problem for banks, because it can cause problems in the real sector or the business world which has the

potential to cause problems in the banking sector. This of course can happen, because the banking sector is an intermediary that supports the need for investment funds for the business world (Ilhami & Thamrin, 2021). Banking in Indonesia faces a number of challenges in the midst of the Covid-19 pandemic so that it can continue to grow and develop, one of which is by maintaining its financial performance which will later affect the soundness of the bank. During the current Covid-19 pandemic, Indonesian banks will face several possible risks, such as credit risk, market risk and liquidity risk. Therefore, these risks will ultimately have an impact on the financial performance of banks in Indonesia.

Bank soundness rating is also carried out to maintain public confidence in state-owned commercial banks and the banking industry as a whole. Because public trust in banks can prevent crises from occurring due to a lack of public trust in the banking industry by withdrawing money simultaneously which results in liquidity risks faced by banks and causes damage to the financial system as a whole. According to Ferdinandus (2020) states that as a whole it can be concluded that PT. Bank Permata, Tbk during the COVID-19 pandemic, the financial condition was NOT HEALTHY. This is because during the COVID-19 pandemic, management was not able to manage funds efficiently. It can be seen from the bank's financial reports that there was a very large increase in operational expenses incurred by Bank Permata, which was accompanied by a drop in profits at PT. Bank Permata, Tbk. Febrianti & Galuh (2021) stated that there was a decline in several factors such as the risk profile factor and earnings factor, while the GCG and Capital factors showed stable results in different periods after the emergence of the COVID-19 pandemic.

## **2. MATERIALS AND METHODS**

The theory underlying regulation in the banking sector originates from the moral hazard problem. Krugman (2008) defines moral hazard as "any situation where a person makes a decision about how much risk to take, while someone else bears the cost if things get worse". This problem stems from the existing deposit insurance in most developed countries. There is a consensus in economic theory that deposit insurance will help stabilize financial markets during a crisis and help them withstand shocks in the event of a bank (Nier & Baumann, 2006).

In an article by Diamond & Dybvig (1983), they show the importance of deposit insurance in terms of appeasing the banking industry. Because banks are always exposed to the risk of bank run, which is a condition where many customers withdraw money from places where they are saving on a large scale, some kind of insurance is needed. During a bank run, depositors panic and start withdrawing their deposits from the bank rapidly and the bank may be forced to sell their assets at a loss (Diamond & Dybvig, 1983). To prevent this from happening in banks, many countries implement the use of deposit insurance to reassure the public that their money is safe (Keister, 2016). Without collateral, deposit insurance depositors may rush to the bank fearing that the bank will not be able to repay all depositors in full, and through this act meets bank failure. In a subsequent article by Diamond and Dybvig (1986) they concluded that deposit insurance is the only known effective measure to keep banks from running without preventing them from creating liquidity.

This study uses quantitative and qualitative analysis, where quantitative research is an analysis in the form of numbers so that it can be measured and calculated, and qualitative research is research on research that is descriptive in nature and tends to use existing theoretical analysis as explanatory material. The data used in this study is secondary data using time series data and the population used in this study are commercial banks in BUKU I to BUKU IV consisting of 52 banks. The variables in this study are Risk Profile (NPL), Good Corporate Governance (GCG) (CGPI), *earning*(ROA), and Capital (CAR). The data used in

this research is secondary data using data 2 years before the Covid-19 pandemic occurred, namely 2018-2019 and 2 years data during the entry of the Covid-19 pandemic, namely 2020–2021. Data sources were obtained from Bank Indonesia and the Financial Services Authority (OJK).

KBMI bank data 4 of them Bank BNI, Bank Mandiri, Bank BCA, and Bank BRI. KBMI 3 banks include Bank DKI, Bank Permata, Bank BTN, Maybank, Bank DBS, Bank Mega, HSBC, BTPN, CIMB Niaga, Bank Danamon, OCBC, and Bank Panin. Bank Book 2 including Bank Maluku, Bank India, Bank MNC International, Bank Mega Syariah, Bank Panin Syariah, Bank Maspion, Bank Ina Perdana, Nobu Bank, Oke Bank, JTRUST Bank, Bank Jasa Jakarta, Bank BJB, Bank BTPN Syariah, China Construc Bank Ind, Bank Jago, Bank Jatim, Bank Mayapada, Bank Sinar Mas, and Bank Woori Saudara. KBMI 1 bank data includes Bank Artha Graha Internasional, Bank Bengkulu, Bank Bisnis, Bank BJB Syariah, Bank Capital Indonesia, Bank FAMA, Bank IBK Indonesia, Bank Lampung, Bank Mestika Dharma, Bank QNB Indonesia, Bank Southeast Sulawesi, Bank Victoria International, Bank Yudha Bhakti, BPD Bali, BPD Banten, Bumi Arta, Prima Master Bank,

Table 1. Data Description

No	Variable Name	Units of measurement	Symbol	Period	Data source
1	Non-Performing Loans	Percent	NPLs	Annual	Financial Services Authority
2	Corporate Governance Perception Index	Percent	CGPI	Annual	Financial Services Authority
3	Return on Assets	Percent	ROA	Annual	Financial Services Authority
4	Capital Adequacy Ratio	Percent	CAR	Annual	Financial Services Authority

Source: Processed by Researchers, 2021

The analytical tool used in this study was the different test method. In conducting this research, the researcher used the help of Microsoft Excel 2010 and SPSS analysis tools.

#### 1. Difference Test

The t-test of difference or the difference test of two means is used to determine whether two unrelated samples have different mean values. Different test t-test is done by comparing the difference between the two average values with the standard error of the difference in the mean of the two samples. So the purpose of the t-test is to compare the averages of two groups that are not related to one another. Do the two groups have the same average value or are they not significantly the same (Ghozali, 2011).

##### a) Paired Sample T-Test

This method is used to test two paired samples, whether they have significantly different averages or not (Santoso, 2010). The steps in this Test are as follows:

##### 1) Define Hypotheses

If  $H_0: \mu_1 = \mu_2$  (there is no significant difference between banking health before and during the Covid-19 pandemic)

If  $H_a: \mu_1 \neq \mu_2$  (there is a significant difference between banking health before and during the Covid-19 pandemic)

2) Finding the value of t table using a significance level  $\alpha = 0.5$  with 2-way testing, and  $db = n-1$

3) Decision criteria

If sig.  $< 0.05$ , then  $H_0$  is rejected and  $H_a$  is accepted

If sig.  $> 0.05$ , then  $H_0$  is accepted and  $H_a$  is rejected.

2. Hypothesis testing

The hypothesis testing was carried out using the Dependent Sample T-test analysis in the SPSS program, the decision was made by comparing the t-count value with the t-table with the conditions (Ghozali, 2018):

a. If the t-count  $< t$ -table, then  $H_0$  is accepted and  $H_a$  is rejected

b. If the t-count  $> t$ -table, then  $H_0$  is rejected and  $H_a$  is accepted

c. If the significance value of t  $> 0.05$  then  $H_0$  is accepted and  $H_a$  is rejected

d. If the significance value of t  $< 0.05$  then  $H_0$  is rejected and  $H_a$  is accepted

Information:

$H_0(1)$ : There was no difference in the level of banking soundness before and during the Covid-19 pandemic.

$H_a(1)$ : There were differences in the level of banking soundness before and during the Covid-19 pandemic.

### 3. RESULTS AND DISCUSSION

This study uses a different test of group sample averages to describe differences in banking performance, including the average NPL, GCG, ROA, and CAR. Differences in financial performance in each banking group before and during Covid-19.

#### 1. Differences in Banking Soundness Levels of Bank Groups Based on Core Capital 1 Before and During Covid-19

The level of banking soundness can be seen from *Risk Profile*(NPL), *Good Corporate Governance*(GCG) (CGPI), *earning*(ROA), and Capital (CAR). These financial ratios are compared between each before the Covid-19 pandemic occurred, namely 2018-2019 and 2 years of data during the entry of the Covid-19 pandemic, namely 2020-2021. If there is a significant difference, it means that there is an influence of Covid-19 on the level of banking soundness. Analysis of differences in banking soundness levels was carried out using a different test analysis of the clustered sample mean. The calculation results are shown in Table 2 which consists of the results of the Paired t-test.

Table 2. Differences in KBMI 1 Banking Health Levels Before and During Covid-19

N = 4	Paired Samples Test		
	Mean Differences	t	Sig (2-tailed)
NPL before-after	-1,270	-8,890	0.012
GCG before-after	0.800	4,000	0.057
ROA before-after	0.058	0.279	0.807
CAR before-after	0.682	1,930	0.193

Source: Processed Results of SPSS 25

The results of the Paired sample t-test NPL, the t-count value of the NPL variable is  $-8.890 < t$ -table  $-6.313$  at a degree of freedom of 1 ( $n-1$ ), which means there is a difference between the average NPL ratio before and during Covid -19. The significance value of t is  $0.012 < \text{probability of } 0.05$  so it can be concluded that there is a significant difference between the average NPL ratio before Covid-19 and during Covid-19. The mean difference value shows

a negative number of -1,270 which means that the NPL ratio before Covid-19 was smaller than during Covid-19. This shows that there was an increase in the NPL ratio during the Covid-19 outbreak of 1,270.

Based on the Paired sample t-test GCG, a t-count value of 4.00 < t-table 6.313 is obtained at degrees of freedom of 1 (n-1), which means there is no difference in average GCG between before covid-19 and during covid-19. Besides that, the significance value of t is 0.057 > probability 0.05. So it can be concluded that there is no significant difference between the average GCG before Covid-19 and during Covid-19. Furthermore, the mean difference value shows the difference between GCG before Covid-19 and during Covid-19, namely 0.800, which means that the GCG value before Covid-19 was greater than during Covid-19. This shows that there has been a decrease in GCG during Covid-19 of 0.800.

Based on the ROA Paired sample t-test, a t-count value of 0.279 < t-table 6.313 was obtained at a degree of freedom of 1 (n-1), which means there was no difference in the average ROA between before Covid-19 and during Covid-19. Besides that, the significance value of t is 0.807 > probability 0.05. So it can be concluded that there is no significant difference between the average ROA before Covid-19 and during Covid-19. Furthermore, the mean difference value shows the difference between ROA before Covid-19 and during Covid-19, namely 0.058, which means that the ROA value before Covid-19 was greater than during Covid-19. This shows that there has been a decrease in ROA during Covid-19 of 0.058.

Based on the Paired sample t-test CAR, a t-count value of 1.930 < t-table 6.313 was obtained at degrees of freedom of 1 (n-1), which means there was no difference in the average CAR between before Covid-19 and during Covid-19. In addition, the significance value of t is 0.193 > probability 0.05. So it can be concluded that there is no significant difference between the average CAR before Covid-19 and during Covid-19. Furthermore, the mean difference value shows the difference between the CAR before Covid-19 and during Covid-19, namely 0.682, which means that the CAR value before Covid-19 was greater than during Covid-19. This shows that there has been a decrease in CAR during Covid-19 of 0.682.

## 2. Differences in Banking Soundness Levels of Bank Groups Based on Core Capital 2 Before and During Covid-19

The level of banking soundness can be seen from *Risk Profile* (NPL), *Good Corporate Governance* (GCG) (CGPI), *earning* (ROA), and Capital (CAR). These financial ratios are compared between each before the Covid-19 pandemic occurred, namely 2018-2019 and 2 years of data during the entry of the Covid-19 pandemic, namely 2020-2021. If there is a significant difference, it means that there is an influence of Covid-19 on the level of banking soundness. Analysis of differences in banking soundness levels was carried out using a different test analysis of the clustered sample mean. The calculation results are shown in Table 3 which consists of the results of the Paired t-test.

Table 3. Differences in KBMI 2 Banking Health Levels Before and During Covid-19

N = 4	Paired Samples Test		
	Mean Differences	t	Sig (2-tailed)
NPL before-after	-0.040	-1.355	0.308
GCG before-after	-0.835	-5.061	0.124
ROA before-after	-0.543	-2.601	0.121
CAR before-after	-0.584	-1.467	0.280

Source: Processed Results of SPSS 25

In the results of the Paired sample t-test NPL, the t-count value of the NPL variable is  $-1.355 < t\text{-table } -6.313$  at a degree of freedom of 1 (n-1), which means there is no difference between the average NPL ratio in the past and during covid-19. In addition, the significance value of t is  $0.308 > \text{probability } 0.05$ , so it can be concluded that there is no significant difference between the average NPL ratio before Covid-19 and during Covid-19. The mean difference value shows a negative number of  $-0.040$ , which means that the NPL ratio before Covid-19 was smaller than during Covid-19. This shows that there was an increase in the NPL ratio during the Covid-19 outbreak of  $0.040$ .

Based on the GCG Paired sample t-test, a t-count value of  $-5.061 < t\text{-table } -6.313$  at degrees of freedom of 1 (n-1) is obtained, which means there is no difference in average GCG between before covid-19 and during covid-19. Besides that, the significance value of t is  $0.124 > \text{probability } 0.05$ . So it can be concluded that there is no significant difference between the average GCG before Covid-19 and during Covid-19. Furthermore, the mean difference value shows the difference between GCG before Covid-19 and during Covid-19 which is  $-0.835$  which means that the GCG value before Covid-19 was smaller than during Covid-19. This shows that there has been an increase in GCG during Covid-19 of  $0.835$ .

Based on the Paired sample t-test ROA, a t-count value of  $-2.601 < t\text{-table } -6.313$  is obtained at a degree of freedom of 1 (n-1), which means there is no difference in the average ROA between before Covid-19 and during Covid-19. Besides that, the significance value of t is  $0.121 > \text{probability } 0.05$ . So it can be concluded that there is no significant difference between the average ROA before Covid-19 and during Covid-19. Furthermore, the mean difference value shows the difference between ROA before Covid-19 and during Covid-19, namely  $-0.543$ , which means that the ROA value before Covid-19 was smaller than during Covid-19. This shows that there has been an increase in ROA during Covid-19 of  $0.543$ .

Based on the Paired sample t-test CAR, a t-count value of  $-1.467 < t\text{-table } -6.313$  at degrees of freedom of 1 (n-1) is obtained, which means there is no difference in the average CAR between before covid-19 and during covid-19. In addition, the significance value of t is  $0.280 > \text{probability } 0.05$ . So it can be concluded that there is no significant difference between the average CAR before Covid-19 and during Covid-19. Furthermore, the mean difference value shows the difference between the CAR before Covid-19 and during Covid-19 which was  $-0.584$  which means that the CAR value before Covid-19 was smaller than during Covid-19. This shows that there has been an increase in CAR during Covid-19 of  $0.584$ .

### 3. Differences in Banking Soundness Levels of Bank Groups Based on Core Capital 3 Before and During Covid-19

The level of banking soundness can be seen from *Risk Profile*(NPL), *Good Corporate Governance*(GCG) (CGPI), *earning*(ROA), and Capital (CAR). These financial ratios are compared between each before the Covid-19 pandemic occurred, namely 2018-2019 and 2 years of data during the entry of the Covid-19 pandemic, namely 2020-2021. If there is a significant difference, it means that there is an influence of Covid-19 on the level of banking soundness. Analysis of differences in banking soundness levels was carried out using a different test analysis of the clustered sample mean. The calculation results are shown in Table 4 which consists of the results of the Paired sample t-test.

Table 4. Differences in KBMI 3 Banking Health Levels Before and During Covid-19

N = 4	Paired Samples Test		
	Mean Differences	t	Sig (2-tailed)
NPL before-after	-2,130	-6,481	0.023
GCG before-after	-0.600	-1,897	0.198
ROA before-after	0.107	0.512	0.660

CAR before-after	0.762	0.468	0.686
------------------	-------	-------	-------

Source: Processed Results of SPSS 25

In the results of the Paired sample t-test NPL, the t-count value of the NPL variable is -6.481 > t-table -6.313 at a degree of freedom of 1 (n-1), which means there is a difference between the average NPL ratio before and during covid-19. In addition, the significance value of t is 0.023 < probability of 0.05, so it can be concluded that there is a significant difference between the average NPL ratio before Covid-19 and during Covid-19. The mean difference value shows a negative number of -2,130 which means that the NPL ratio before Covid-19 was smaller than during Covid-19. This shows that there was an increase in the NPL ratio during the Covid-19 outbreak of 2,130.

Based on the GCG Paired sample t-test, a t-count value of -1.897 < t-table -6.313 at a degree of freedom of 1 (n-1) means that there is no difference in average GCG between before covid-19 and during covid-19. Besides that, the significance value of t is 0.198 > probability 0.05. So it can be concluded that there is no significant difference between the average GCG before Covid-19 and during Covid-19. Furthermore, the mean difference value shows the difference between GCG before Covid-19 and during Covid-19, namely -0.600, which means that the GCG value before Covid-19 was smaller than during Covid-19. This shows that there has been an increase in GCG during Covid-19 of 0.600.

Based on the ROA Paired sample t-test, a t-count value of 0.512 < t-table 6.313 was obtained at a degree of freedom of 1 (n-1), which means there was no difference in the average ROA between before Covid-19 and during Covid-19. In addition, the significance value of t is 0.660 > probability 0.05. So it can be concluded that there is no significant difference between the average ROA before Covid-19 and during Covid-19. Furthermore, the mean difference value shows the difference between ROA before Covid-19 and during Covid-19, namely 0.107, which means that the ROA value before Covid-19 was smaller than during Covid-19. This shows that there has been a decrease in ROA during Covid-19 of 0.107.

Based on the Paired sample t-test CAR, a t-count value of 0.468 < t-table 6.313 was obtained at a degree of freedom of 1 (n-1), which means there was no difference in the average CAR between before Covid-19 and during Covid-19. In addition, the significance value of t is 0.686 > probability 0.05. So it can be concluded that there is no significant difference between the average CAR before Covid-19 and during Covid-19. Furthermore, the mean difference value shows the difference between the CAR before Covid-19 and during Covid-19, namely 0.762, which means that the CAR value before Covid-19 was smaller than during Covid-19. This shows that there has been a decrease in CAR during Covid-19 of 0.762.

#### 4. Differences in Banking Soundness Levels of Bank Groups Based on Core Capital 4 Before and During Covid-19

The level of banking soundness can be seen from *Risk Profile*(NPL), *Good Corporate Governance*(GCG) (CGPI), *earning*(ROA), and Capital (CAR). These financial ratios are compared between each before the Covid-19 pandemic occurred, namely 2018-2019 and 2 years of data during the entry of the Covid-19 pandemic, namely 2020-2021. If there is a significant difference, it means that there is an influence of Covid-19 on the level of banking soundness. Analysis of differences in banking soundness levels was carried out using a different test analysis of the clustered sample mean. The calculation results are shown in Table 5 which consists of the results of the Paired sample t-test.

Table 5. Differences in KBMI 4 Banking Health Levels Before and During Covid-19

#### *Paired Samples Test*

<b>N = 4</b>	<b>Mean Differences</b>	<b>t</b>	<b>Sig (2-tailed)</b>
NPL before-after	-3,552	-9,852	0.010
GCG before-after	-0.575	-3,286	0.081
ROA before-after	0.280	1,727	0.226
CAR before-after	1,521	2,396	0.139

Source: Processed Results of SPSS 25

In the results of the Paired sample t-test NPL, the t-count value of the NPL variable is -9.852 > t-table -6.313 at a degree of freedom of 1 (n-1), which means there is a difference between the average NPL ratio before and during covid-19. In addition, the significance value of t is 0.010 < probability of 0.05, so it can be concluded that there is a significant difference between the average NPL ratio before Covid-19 and during Covid-19. The mean difference value shows a negative number of -3.552, which means that the NPL ratio before Covid-19 was smaller than during Covid-19. This shows that there was an increase in the NPL ratio during the Covid-19 outbreak of 3.552.

Based on the GCG Paired sample t-test, a t-count value of -3.286 < t-table -6.313 at degrees of freedom of 1 (n-1) is obtained, which means there is no difference in average GCG between before covid-19 and during covid-19. Besides that, the significance value of t is 0.081 > probability 0.05. So it can be concluded that there is no significant difference between the average GCG before Covid-19 and during Covid-19. Furthermore, the mean difference value shows the difference between GCG before Covid-19 and during Covid-19 which was -0.575 which means that the GCG value before Covid-19 was smaller than during Covid-19. This shows that there has been an increase in GCG during Covid-19 of 0.575.

Based on the Paired sample t-test ROA, a t-count value of 1.727 < t-table 6.313 was obtained at a degree of freedom of 1 (n-1), which means there was no difference in the average ROA between before Covid-19 and during Covid-19. Besides that, the significance value of t is 0.226 > probability 0.05. So it can be concluded that there is no significant difference between the average ROA before Covid-19 and during Covid-19. Furthermore, the mean difference value shows the difference between ROA before Covid-19 and during Covid-19, which was 0.280, which means that the ROA value before Covid-19 was greater than during Covid-19. This shows that there has been a decrease in ROA during Covid-19 of 0.280.

Based on the Paired sample t-test CAR, a t-count value of 2.396 < t-table 6.313 was obtained at a degree of freedom of 1 (n-1), which means there was no difference in the average CAR between before Covid-19 and during Covid-19. In addition, the significance value of t is 0.139 > probability 0.05. So it can be concluded that there is no significant difference between the average CAR before Covid-19 and during Covid-19. Furthermore, the mean difference value shows the difference between the CAR before Covid-19 and during Covid-19, namely 1.521, which means that the CAR value before Covid-19 was greater than during Covid-19. This shows that there has been a decrease in CAR during Covid-19 of 1,521.

#### **4. CONCLUSION**

Based on the results of the study it was found that at KBMI 1, 3 and 4 banks there were significant differences between banking NPLs before and during Covid-19 while there were no differences in GCG, ROA and CAR. Bank KBMI 2 has no significant differences between banking NPL, GCG, ROA, and CAR before and during Covid-19. The NPL ratio used to measure credit risk or financing provided to third parties shows there is no difference

between the average NPL ratio before and during Covid-19. This is because in the early days of the Covid-19 pandemic, customers did not have sufficient funds to pay loan installments so that cases of default or delays in payment increased.

## REFERENCES

- Anggraini, R. (2017). Analysis of the Soundness Level of Islamic Banks Before and After the Spin Off. *Ekspektra*, 1(1), 11–20. <https://doi.org/10.25139/ekt.v1i1.88>
- Arora, A. (2014). *Banking Law*. In Perason Education Limited. <https://doi.org/10.1080/03050718.2005.9986737>
- Dewi, I. A. G. K., & Purnawati, N. K. (2016). Banking Financial Analysis Before and After the Acquisition of Bank Sinar Bali. *Unud Management E-Journal*, 5(6), 3504–3531.
- Dill, A. (2020). *Bank Regulation, Risk Management, and Compliance: Theory, Practice, and Key Problem Areas*.
- Febrianti, A. Y. (2021). Analysis of Assessment of Bank Soundness Using the RGEN Method in State-Owned Commercial Banks Listed on the Indonesia Stock Exchange in 2012-2014. *Journal of Education and Economics*, 5(2), 114–123.
- Ferdinandus, S.J. (2020). Assessing the financial health condition of PT Bank Permata, TBK during the Covid-19 pandemic. *Sosoq*, 8, 22–34.
- Ilhami, & Thamrin, H. (2021). Analysis of the Impact of Covid 19 on the Financial Performance of Islamic Banking in Indonesia. *Journal of Tabarru': Islamic Banking and Finance*, 4(1), 37–45. [https://doi.org/10.25299/jtb.2021.vol4\(1\).6068](https://doi.org/10.25299/jtb.2021.vol4(1).6068)
- Lestari, R. D. (2017). Comparative Analysis of Financial Performance of Islamic Commercial Banks Before and After the 2008 Global Economic Crisis (Vol. 2008).
- Martin, F. A. (2011). *Financial Statement Analysis*, 4th Edition. *Journal of Chemical Information and Modeling*, 53(9), 1689–1699.
- Nissim, D., & Penman, S. H. (2003). Financial Statement Analysis of Leverage. *Financial Statement Analysis of Leverage*, 531–560.
- Pratikto, H., & Iis, S. (2011). Islamic Bank Efficiency Performance Before and After Global Crisis Based on Data Envelopment Analysis. *Journal of Business Economics*, 16(2), 108–117.
- Putra, A., & Saraswati, D. (2020). *Banks & Other Financial Institutions*. In CV. Jakad Media Publishing.
- Sudarsono, H. (2009). The Impact of the Global Financial Crisis on Banking in Indonesia: Comparison between Conventional Banks and Islamic Banks. *La\_Riba, Journal of Islamic Economics*, 3(1), 12–23. <https://doi.org/10.35316/lisanalhal.v13i2.602>
- Sugiono. (2013). *Quantitative Research Methods, Qualitative, and R&D*. Bandung alphabet.
- Sullivan, S. V., & Widoatmodjo, S. (2021). Bank Financial Performance Before and During the Pandemic (Covid – 19). *Journal of Managerial and Entrepreneurship*, III(1), 257–266.
- Tian, W. (2016). Commercial banking risk management: Regulation in the wake of the financial crisis. In *Commercial Banking Risk Management: Regulation in the Wake of the Financial Crisis*. <https://doi.org/10.1057/978-1-137-59442-6>
- Wahyudi, R. (2020). Analysis of the Influence of CAR, NPF, FDR, BOPO and Inflation on the Profitability of Islamic Banking in Indonesia: A Study of the Covid-19 Pandemic Period. *At-Taqaddum*, 12(1), 13. <https://doi.org/10.21580/at.v12i1.6093>
- Wibowo, S. (2015). Comparative Analysis of Islamic Banking Financial Performance (Comparative Study: Indonesia, Malaysia, Thailand). *Journal of Economics and Management Research*.