

## **Analysis of Differences in Bank Health Levels Using the RGEC Method (Case Study on Foreign Exchange National Private Commercial Bank)**

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**Abstract.** This study aims to determine comparison of the health level of Foreign Exchange Banks before and during the Covid-19 Pandemic from the aspect of Risk Profile, Good Corporate Governance (GCG), Earnings, and Capital (RGEC). In this study, the assessment of the Risk Profile factor seen from credit risk is measured by the NPL ratio and liquidity risk is measured by the LDR ratio, the Good Corporate Governance (GCG) factor is measured by the bank's self-assessment, the Earnings factor is measured by the ROA and NIM ratios, and the Capital factor measured by the CAR ratio. The results of the study concluded that the health level of the Foreign Exchange National Private Commercial Bank before and during the Covid-19 pandemic was in the Very Healthy criteria. This is shown by the differences in the LDR, ROA, NIM and CAR ratios before and during the Covid-19 pandemic and there are no differences in the NPL and GCG ratios before and during the Covid-19 pandemic.

**Keywords:** bank health level; risk profile; good corporate governance; Earnings; capital

### **I. Introduction**

The global financial crisis that has hit various countries around the world has provided an understanding for banks that step in creating innovations in banking products, and services that are not supported by proper risk management implementation will create problems for the bank itself or the financial system (Financial Services Authority, 2017). The economic crisis also occurred due to the emergence of the Covid-19 pandemic, which was interpreted as a risk in the financial aspect of banking. According to Latoree et al. (2020), there are several direct effects of the pandemic, namely the first scenario of low-interest rates along with the significant impact of Covid-19 to reduce bank profitability and increase the credit risk of both individual and corporate and retail customers. This is reflected in the condition of banking in Indonesia, based on the Financial Stability Study no. 36, March 2021 issued by Bank Indonesia noted that there was a decline in banking profitability, namely the ROA ratio, which was recorded at 1.59% at the end of December 2020 which was lower than December 2019 which was 2.44%. The decline in bank profitability was partly influenced by loan interest income which fell drastically due to an increase in credit risk as seen in the rise in the NPL ratio, which was recorded at 2.53% in December 2019 and rose to 3.06% in December 2020. Therefore, banks must optimize the effectiveness of the implementation of risk management and governance to identify problems that occur quickly, choose appropriate remedial steps, and implement optimal governance and risk management so that banks can maintain their current performance facing a crisis (Financial Services Authority, 2017).

BUSND is a bank with a license to conduct transactions abroad and plays a vital role in growing the country's foreign exchange. BUSND performance data from Indonesian Banking Statistics issued by the Financial Services Authority (OJK) shows an up and down movement in the value of each ratio, resulting in different health ratings. This follows the research of Koto & Lubis (2020), explaining that international economic conditions strongly influence BUSND activities, so the bank's performance is more volatile. Indonesian Banking Statistics data reflects that BUSND has experienced a slowdown in its performance in terms of net profit due to the risk of the Covid-19 pandemic. Before the entry of the Covid-19 pandemic in Indonesia, namely in 2018 and 2019. In 2018, BUSND recorded a net profit of Rp 49,497 billion. Furthermore, in 2019, net profit growth was IDR 55,461 billion. During the Covid 19 pandemic, which was confirmed for the first time on March 2, 2020, the financial services industry, including the banking sector, experienced a slowdown due to the natural and corporate sectors not yet fully operating. BUSND's net profit in March 2020 decreased significantly, which was Rp. 13,739 billion.

With the emergence of the risk of the Covid-19 pandemic, it becomes crucial to analyze the health of BUSND to find out whether there are differences in the health of banks before and during the Covid-19 pandemic. So, calculations were carried out before the Covid-19 pandemic, namely in 2019 and during the Covid-19 pandemic, namely in 2020.

## **II. Literature Review**

### **Bank**

According to Ajuha (2017), banks allocate funds from parties who cannot manage profitably to parties who can control them more productively for the benefit of the community. Meanwhile, Ismail (2018) states that banks are financial institutions that provide deposit services to collect funds from the public and then offer credit services to channel them back to the community. Based on Hery's (2020) understanding, banks are financial institutions that have the main activity of accepting savings, saving demand deposits, and deposits also providing services in exchanging money, moving money, borrowing money and receiving benefits for payments and deposits such as payments for electricity, water, telephone, tax and others.

### **Types of Banks**

According to Latumerissa (2017), there are several types of banks, namely as follows:

- 1) From Ownership Status
  - a. State-Owned Bank, is a bank whose entire capital is owned by the state where this bank is established under a separate law.
  - b. National Private Owned Bank, is a bank in the form of a limited liability company, and share ownership is held by Indonesian citizens or legal entities in Indonesia.
  - c. Foreign Private Bank, is a branch bank of a bank that has operational activities abroad or in the form of a mixture of foreign banks and national banks in Indonesia.
  - d. Regional Development Bank, is a bank whose establishment follows the regional regulations of each province where most of its shares are owned by the district and city governments.
  - e. Mixed Bank is a bank whose shares are partly owned by foreign and national private parties.
- 2) Seen from Operational Activities
  - a. Foreign Exchange Bank, is a bank that Bank Indonesia has approved to transact with foreign exchange and foreign exchange traffic and deal with foreign banks abroad.
  - b. Non-Foreign Exchange Bank, is a bank with a limited range of activities. That is, it can only conduct domestic transactions, cannot carry out foreign exchange transactions and is not related to foreign banks abroad.

### **Financial Statements**

Based on Sukamulja's understanding (2019), the financial statements provide comprehensive information regarding a company's performance and financial condition. Wardiyah (2017) argues that financial statements are written reports that reasonably describe a company's cash flow, financial position and performance that can be used in making decisions and show management's responsibility in allocating existing resources. Financial statements are a visual representation of the company used to describe the business to investors or other parties outside the company regarding the company's performance (Titman et al., 2018).

### **Financial Statement Analysis**

Financial statement analysis must be carried out appropriately to measure management performance from each period, namely by analyzing the accounts in the financial statements. It can also be done by assessing one report and another.

### **The Purpose of Financial Statement Analysis**

The purpose of financial statement analysis is to review and evaluate the information in the reporting to obtain reliable conclusions about the past state of an organization to forecast its future functioning. Evaluation of financial statements is the process by which a company's past and current financial position and performance are assessed. Due to the analysis of financial statements, essential characteristics of the company are also determined in particular its success or bankruptcy risk (Osadchy et al., 2018).

### **Bank Health Levels**

According to POJK No. 3 of 2016 regarding the Assessment of Commercial Bank Health Level, bank health level is the result of assessing the bank by measuring the risk and performance.

### **Risk Profile**

Based on the journal Octaviani and Saraswati's (2018) assessment of the risk profile factor is by assessing the inherent risk and quality of risk management implementation in bank operational activities. These risks are as follows:

a. Credit Risk

The risk of loans that banks have given to customers is not repaid by previous agreements, for example, there is a delay, a reduction in paying interest rates and loans or even not paying off the loan at all (Nufus, et al., 2019). Based on BI SE No. 13/30/DPNP dated December 16, 2011, the measurement of credit risk is measured by the ratio of Non-Performing Loans (NPL) as follows:

$$\text{NPL} = (\text{Non-performing Loans}) / (\text{Total Credit}) \times 100\% \dots (2.1)$$

A high NPL value in a bank is indicated when non-performing loans are higher than the amount of credit extended to debtors. This ratio shows that a bank's credit quality deteriorates if the NPL ratio increases. On the other hand, when the NPL ratio decreases, the credit risk charged by banks also decreases. Banks that have a high NPL ratio affect increasing the cost of reserves for productive assets or other expenses so that they have the potential to cause bank losses (Utami & Silaen, 2018).

b. Liquidity Risk

The risk is determining the bank's ability to pay all customer funds by utilizing the credit provided (Dwitama, 2021). Measurement of this risk can use the Loan to Deposit Ratio (LDR) ratio, which is as follows:

$$\text{LDR} = (\text{Amount of credit given}) / (\text{Third party funds}) \times 100\% \dots (2.2)$$

The LDR ratio is the difference between the total loan (credit) disbursed to customers and the number of third-party funds the bank provides. LDR shows the extent to which the bank's capability to repay withdrawals made by customers by utilizing channeled credit as a source of liquidity (Nursalim et al., 2021).

### Good Corporate Governance

Based on the understanding Hadiwijaya et al. (2016), Good Corporate Governance is a unit mechanism that guides companies so that their operational activities run according to the goals expected by stakeholders. The implementation of GCG in industrial banking is required to be carried out based on five basic principles, namely accountability, transparency, independence, responsibility, and fairness. To ensure the implementation of these five basic principles, Bank Indonesia established Regulation no. 15/15/DPNP dated April 29, 2013 regarding the Implementation of GCG for Commercial Banks stated that banks must conduct self-assessment periodically which includes at least 11 (eleven) factors for assessing GCG implementation, namely:

- 1) Implementation of the duties and responsibilities of the Board of Commissioners;
- 2) Implementation of the duties and responsibilities of the Board of Directors;
- 3) Completeness and implementation of the Committee's duties;
- 4) Handling conflicts of interest;
- 5) Implementation of compliance function;
- 6) Implementation of the internal audit function;
- 7) Implementation of the external audit function;
- 8) Implementation of risk management including systems internal control;
- 9) Provision of funds to related parties and provision of large funds (large exposures);
- 10) Transparency of the Bank's financial and non-financial conditions, GCG implementation reports and internal reporting; and
- 11) Bank's strategic plan

### Earnings

Earnings is an assessment of the bank's health seen from the aspect of income. The characteristics of the bank's health from earnings are performance in managing profits, stability of components that support core income, and effectiveness of earnings to increase capital and prospects for future profits. The assessment of the profit factor in this study uses two kinds of ratios, namely:

a. Return on Assets (ROA)

Profitability ratios can assess the effectiveness of the company in obtaining profits by using its total assets (Muliana & G, 2019).

$$\text{ROA} = (\text{Net income before tax}) / (\text{Average total assets}) \times 100\% \dots (2.3)$$

b. Net Interest Margin (NIM)

Ariyani (2020), stated that NIM shows the level of income the bank generates compared to the revenue obtained from its operational activities. The increase in the NIM value indicates the bank's success

in managing interest-bearing assets so that the bank gets an increase in profit as well. The formula for this ratio is:

$$\text{NIM} = (\text{Net interest income}) / (\text{Average earning assets}) \times 100\% \dots (2.4)$$

### Capital

Based on POJK No. 3 of 2016, the assessment of the capital factor assesses the level of capital adequacy and capital management. Capital can be calculated by the ratio of Capital Adequacy Ratio (CAR). CAR is a ratio of capital adequacy to the bank or the capability of the bank to capital, namely to accommodate losses that the bank may experience. An increase in CAR shows banks are better at handling risks from risky loans (Dwitama, 2021).

$$\text{CAR} = (\text{Total capital}) / (\text{Risk weighted assets}) \times 100\% \dots (2.5)$$

### III. Research Method

This study uses comparative research, which aims to compare the values of one or more independent variables in two or more populations, samples or different times or a combination of all of them. This study assesses a single variable, namely the health level of the bank. The bank's health is the result of the bank's performance assessment based on the calculation of the RGEC method. The population in this study are national private foreign exchange banks listed on the Indonesia Stock Exchange, which are 20 banks. Sampling using the non-probability sampling method is based on purposive sampling. The specified criteria are:

- 1) The bank has been listed on the Indonesia Stock Exchange (IDX).
- 2) Complete financial report data for 2019-2020 is available on the Indonesia Stock Exchange (IDX).
- 3) Bank financial statements in rupiah currency in their reporting.

Based on these criteria, the sample obtained is 13 banking companies. Data collection uses archival techniques, namely loading past (historical) events. This research utilizes secondary data sources. In this study, secondary data were obtained from the published financial statements of BUSND, which were collected from the Indonesia Stock Exchange (IDX) and the websites of each bank. Researchers analyzed the data descriptively to determine the health of banks before and during the Covid-19 pandemic. They analyzed statistically to find out whether there were differences in the health level of BUSND before and during the Covid-19 pandemic by using the Normality Test, Paired Sample-T test, and Test Wilcoxon.

### IV. Results and Discussion

This study aims to determine the value of each variable in assessing the health level of BUSND before and during the Covid-19 pandemic based on assessment indicators which include Risk Profile proxied by NPL and LDR ratios, Good Corporate Governance aspects using GCG composite values, Earnings assessed by ROA and NIM ratios as well as the Capital aspect using the CAR ratio.

#### Results of Risk Profile Analysis Before and During the Covid-19 Pandemic

- 1) Risk Profile
  - a. NPL

Table 1. NPL Ratio Calculation Results

	BUSND	NPL	Health Rating	Criteria
<b>Before Covid-19 Pandemic</b>				
<b>2019</b>	Bank Bukopin	5,97 %	3	<b>Healthy</b>
	Bank Bumi Arta	1,53 %	1	
	Bank Capital Indonesia	3,48 %	2	
	Bank Central Asia	1,34 %	1	
	Bank Danamon Indonesia	3,23 %	2	
	Bank Ganesha	2,28 %	2	
	Bank Mayapada Internasional	3,85 %	2	
	Bank Mega	2,46 %	2	
	Bank MNC Internasional	5,78 %	3	

	Bank OCBC NISP	1,72 %	1	
	Bank PAN Indonesia	3,04 %	2	
	Bank Permata	2,75 %	2	
	Bank Sinarmas	8,00 %	3	
	<b>Mean</b>		<b>2</b>	
<b>After Covid-19 Pandemic</b>				
<b>2020</b>	Bank Bukopin	10,13 %	4	<b>Healthy</b>
	Bank Bumi Arta	2,63 %	2	
	Bank Capital Indonesia	0,00 %	1	
	Bank Central Asia	1,79 %	1	
	Bank Danamon Indonesia	2,84 %	2	
	Bank Ganesha	5,49 %	3	
	Bank Mayapada Internasional	4,09 %	2	
	Bank Mega	1,39 %	1	
	Bank MNC Internasional	5,69 %	3	
	Bank OCBC NISP	1,93 %	1	
	Bank PAN Indonesia	2,99 %	2	
	Bank Permata	2,81 %	2	
	Bank Sinarmas	4,85 %	2	
	<b>Mean</b>		<b>2</b>	

Source: Researcher Processed Data

Table 1 shows the average NPL value before and during the Covid-19 pandemic, namely 3.50% and 3.59%, where these two values are >2% and <5%, so they are included in the "Healthy" criteria.

b. LDR

Table 2. LDR Ratio Calculation Results

	<b>BUSND</b>	<b>LDR</b>	<b>Health Rating</b>	<b>Criteria</b>
<b>Before Covid-19 Pandemic</b>				
	Bank Bukopin	86,06 %	3	<b>Sufficiently Healthy</b>
	Bank Bumi Arta	87,08 %	3	
	Bank Capital Indonesia	60,55 %	1	
<b>2019</b>	Bank Central Asia	83,98 %	2	
	Bank Danamon Indonesia	100,16 %	4	
	Bank Ganesha	82,76 %	2	
	Bank Mayapada Internasional	93,34 %	3	
	Bank Mega	72,84 %	1	
	Bank MNC Internasional	89,60 %	3	
	Bank OCBC NISP	94,08 %	3	
	Bank PAN Indonesia	101,43 %	4	
	Bank Permata	88,29 %	3	
	Bank Sinarmas	91,26 %	3	

	<b>Mean</b>		<b>3</b>	
<b>After Covid-19 Pandemic</b>				
<b>2020</b>	Bank Bukopin	138,43 %	5	<b>Healthy</b>
	Bank Bumi Arta	76,57 %	2	
	Bank Capital Indonesia	38,99 %	1	
	Bank Central Asia	69,23 %	1	
	Bank Danamon Indonesia	88,41 %	3	
	Bank Ganesha	63,99 %	1	
	Bank Mayapada Internasional	77,80 %	2	
	Bank Mega	61,37 %	1	
	Bank MNC Internasional	77,36 %	2	
	Bank OCBC NISP	72,03 %	1	
	Bank PAN Indonesia	90,03 %	3	
	Bank Permata	81,38 %	2	
	Bank Sinarmas	66,56 %	1	
	<b>Mean</b>		<b>2</b>	

Source: Researcher Processed Data

Based on Table 2, the average LDR value before the Covid-19 pandemic was 87.03%, where the value was >85% and <100%, so it was included in the "Sufficiently Healthy" criteria. Meanwhile, during the Covid-19 pandemic, the average LDR value was 77.09%, where the value was >75% and <85%, so it was included in the "Healthy" criteria.

#### GCG Analysis Results Before and During the Covid-19 Pandemic

Table 3. GCG Ratio Calculation Results

	<b>BUSND</b>	<b>GCG</b>	<b>Health Rating</b>	<b>Criteria</b>
<b>Before Covid-19 Pandemic</b>				
<b>2019</b>	Bank Bukopin	2	2	<b>Good</b>
	Bank Bumi Arta	2	2	
	Bank Capital Indonesia	3	3	
	Bank Central Asia	2	2	
	Bank Danamon Indonesia	2	2	
	Bank Ganesha	2	2	
	Bank Mayapada Internasional	2	2	
	Bank Mega	2	2	
	Bank MNC Internasional	2	2	
	Bank OCBC NISP	1	1	
	Bank PAN Indonesia	2	2	
	Bank Permata	2	2	
	Bank Sinarmas	2	2	
	<b>Mean</b>		<b>2</b>	

After Covid-19 Pandemic				
2020	Bank Bukopin	3	3	Good
	Bank Bumi Arta	2	2	
	Bank Capital Indonesia	3	3	
	Bank Central Asia	2	2	
	Bank Danamon Indonesia	2	2	
	Bank Ganesha	2	2	
	Bank Mayapada Internasional	2	2	
	Bank Mega	2	2	
	Bank MNC Internasional	2	2	
	Bank OCBC NISP	1	1	
	Bank PAN Indonesia	2	2	
	Bank Permata	2	2	
	Bank Sinarmas	3	3	
	<b>Mean</b>		<b>2</b>	

Source: Researcher Processed Data

Table 3 shows the average value of GCG before and during the Covid-19 pandemic, which is 2 and 2.08, where the value is > 1.5 and < 2.5, so it is included in the "Good" criteria.

#### Earnings Analysis Results Before and During the Covid-19 Pandemic

##### 1) ROA

Table 4. ROA Ratio Calculation Results

	BUSND	ROA	Health Rating	Criteria
Before Covid-19 Pandemic				
2019	Bank Bukopin	0,14 %	4	Healthy
	Bank Bumi Arta	0,95 %	3	
	Bank Capital Indonesia	0,13 %	4	
	Bank Central Asia	4,16 %	1	
	Bank Danamon Indonesia	2,89 %	1	
	Bank Ganesha	0,31 %	4	
	Bank Mayapada Internasional	0,80 %	3	
	Bank Mega	2,72 %	1	
	Bank MNC Internasional	0,29 %	4	
	Bank OCBC NISP	2,20 %	1	
	Bank PAN Indonesia	2,20 %	1	
	Bank Permata	1,28 %	2	
	Bank Sinarmas	0,24 %	4	
	<b>Mean</b>		<b>2</b>	
After Covid-19 Pandemic				
2020	Bank Bukopin	-4,35 %	5	

	Bank Bumi Arta	0,70 %	3	<b>Sufficiently Healthy</b>
	Bank Capital Indonesia	0,40 %	4	
	Bank Central Asia	3,37 %	1	
	Bank Danamon Indonesia	1,05 %	3	
	Bank Ganesha	0,10 %	4	
	Bank Mayapada Internasional	0,11 %	4	
	Bank Mega	3,49 %	1	
	Bank MNC Internasional	0,14 %	4	
	Bank OCBC NISP	1,44 %	2	
	Bank PAN Indonesia	1,90 %	1	
	Bank Permata	0,90 %	3	
	Bank Sinarmas	0,29 %	4	
	<b>Mean</b>		<b>3</b>	

Source: Researcher Processed Data

Based on Table 4, the average ROA value before the Covid-19 pandemic was 1.41%, where the value was > 1.25% and < 1.5%, so it was included in the "Healthy" criteria. Meanwhile, during the Covid-19 pandemic, the average ROA value was 0.73%, whereas the value was > 0.5% and < 1.25%, so it was included in the "Sufficiently Healthy" criteria.

2) NIM

Table 5. NIM Ratio Calculation Results

	<b>BUSND</b>	<b>NIM</b>	<b>Health Rating</b>	<b>Criteria</b>
<b>Before Covid-19 Pandemic</b>				
<b>2019</b>	Bank Bukopin	2,36 %	2	<b>Very Healthy</b>
	Bank Bumi Arta	3,69 %	1	
	Bank Capital Indonesia	3,34 %	1	
	Bank Central Asia	6,50 %	1	
	Bank Danamon Indonesia	8,50 %	1	
	Bank Ganesha	4,55 %	1	
	Bank Mayapada Internasional	3,45 %	1	
	Bank Mega	4,77 %	1	
	Bank MNC Internasional	4,16 %	1	
	Bank OCBC NISP	3,91 %	1	
	Bank PAN Indonesia	4,91 %	1	
	Bank Permata	4,21 %	1	
	Bank Sinarmas	7,23 %	1	
	<b>Mean</b>		<b>1</b>	
<b>After Covid-19 Pandemic</b>				
<b>2020</b>	Bank Bukopin	0,71 %	5	<b>Very Healthy</b>
	Bank Bumi Arta	4,11 %	1	
	Bank Capital Indonesia	0,59 %	5	
	Bank Central Asia	5,94 %	1	



Bank Danamon Indonesia	7,70 %	1
Bank Ganesha	3,74 %	1
Bank Mayapada Internasional	0,22 %	5
Bank Mega	4,32 %	1
Bank MNC Internasional	3,78 %	1
Bank OCBC NISP	3,70 %	1
Bank PAN Indonesia	4,65 %	1
Bank Permata	4,38 %	1
Bank Sinarmas	5,94 %	1
<b>Mean</b>		<b>1</b>

Source: Researcher Processed Data

Table 5 shows the average NIM value before and during the Covid-19 pandemic, 4.74% and 3.83%, where the value is >3%, so it is included in the "Very Healthy" criteria.

### Capital Analysis Results Before and During the Covid-19 Pandemic CAR

Table 6. CAR Ratio Calculation Results

	<b>BUSND</b>	<b>CAR</b>	<b>Health Rating</b>	<b>Criteria</b>
<b>Before Covid-19 Pandemic</b>				
<b>2019</b>	Bank Bukopin	12,59 %	1	<b>Very Healthy</b>
	Bank Bumi Arta	23,55 %	1	
	Bank Capital Indonesia	12,67 %	1	
	Bank Central Asia	23,80 %	1	
	Bank Danamon Indonesia	24,59 %	1	
	Bank Ganesha	32,84 %	1	
	Bank Mayapada Internasional	16,19 %	1	
	Bank Mega	23,68 %	1	
	Bank MNC Internasional	15,16 %	1	
	Bank OCBC NISP	19,10 %	1	
	Bank PAN Indonesia	23,41 %	1	
	Bank Permata	19,89 %	1	
	Bank Sinarmas	17,32 %	1	
	<b>Mean</b>		<b>1</b>	
<b>After Covid-19 Pandemic</b>				
<b>2020</b>	Bank Bukopin	12,08 %	1	<b>Very Healthy</b>
	Bank Bumi Arta	25,80 %	1	
	Bank Capital Indonesia	18,11 %	1	
	Bank Central Asia	25,83 %	1	
	Bank Danamon Indonesia	25,59 %	1	
	Bank Ganesha	35,70 %	1	

Bank Mayapada Internasional	15,45 %	1
Bank Mega	31,04 %	1
Bank MNC Internasional	15,75 %	1
Bank OCBC NISP	21,98 %	1
Bank PAN Indonesia	29,58 %	1
Bank Permata	35,68 %	
Bank Sinarmas	17,10 %	1
<b>Mean</b>		<b>1</b>

Source: Researcher Processed Data

Table 6 shows the average CAR value before and during the Covid-19 pandemic, which is 20.37% and 23.82%, where the value is >12%, so it is included in the "Very Healthy" criteria.

### Bank Health Level Before the Covid-19 Pandemic

Table 7. Composite Rating of Bank Health Level Before the Covid-19 Pandemic

Component	Ratio	Rating					Criteria
		1	2	3	4	5	
<i>Risk Profile</i>	NPL		v				Healthy
	LDR			v			Sufficiently Healthy
GCG			v				Healthy
<i>Earnings</i>	ROA		v				Healthy
	NIM	v					Very Healthy
<i>Capital</i>	CAR	v					Very Healthy
Nilai Komposit		10	12	3	0	0	
		<b>25</b>					<b>Very Healthy</b>

Source: Researcher Processed Data

Thus the health level of BUSND before the Covid-19 pandemic obtained a composite value rating of 71.42%, which means that BUSND's health level was in the Very Healthy criteria because the value was >71% and <85%.

### Bank Health Level During the Covid-19 Pandemic

Table 8. Composite Rating of Bank Health Level After the Covid-19 Pandemic

Component	Ratio	Rating					Criteria
		1	2	3	4	5	
<i>Risk Profile</i>	NPL		v				Healthy
	LDR		v				Healthy
GCG			v				Healthy
<i>Earnings</i>	ROA			v			Sufficiently Healthy
	NIM	v					Very Healthy
<i>Capital</i>	CAR	v					Very Healthy
Nilai Komposit		10	12	3	0	0	

	<b>25</b>	<b>Very Healthy</b>
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Source: Researcher Processed Data

Table 8 shows that the health level of BUSND during the Covid-19 pandemic can maintain its composite value rating of 71.42%, which means that BUSND's health level is in the Very Healthy criteria because the value is >71% and <85%.

### Hypothesis Testing

To find out the comparison of the health level of BUSND before and during the Covid-19 pandemic, it is necessary to analyze statistical data. Statistical data analysis was carried out with a different test using Paired Sample T-Test and Wilcoxon to determine whether or not there were differences in the health of banks before and during the Covid-19 pandemic.

### Normality Test

The normality test in this study used the Shapiro-Wilk test because the sample was less than 50. The results of the normality test were as follows:

Table 9. Normality Test

<b>Tests of Normality</b>			
	Statistic	Df	Sig.
NPL 2019	.883	13	.079
NPL 2020	.899	13	.131
LDR 2019	.910	13	.183
LDR 2020	.854	13	.032
GCG 2019	.574	13	.000
GCG 2020	.795	13	.006
ROA 2019	.878	13	.067
ROA 2020	.836	13	.019
NIM 2019	.905	13	.155
NIM 2020	.914	13	.206
CAR 2019	.933	13	.369
CAR 2020	.941	13	.475

Source: Researcher Processed Data

Based on the Shapiro-Wilk normality test results, it is known that NPL, NIM, and CAR have probability values > 0.05. Thus, it can be concluded that the NPL, NIM, and CAR ratio values have residual variables that are normally distributed. Whereas LDR, GCG, and ROA have probability values <0.05, meaning that the LDR, GCG, and ROA ratios have residual variables that are not normally distributed.

### Paired Sample T-Test

Paired Sample T-Test test is used on data with a normally distributed residual variable. Based on the Shapiro-Wilk test, it is known that NPL, NIM, and CAR have normally distributed data.

The results of the Paired Sample T-Test are as follows:

Table 10. Paired Sample T-Test

	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
	Lower	Upper			
NPL2019 – NPL2020	-1.35456	1.16994	-.159	12	.876
NIM2019 – NIM2020	.25669	1.56024	3.037	12	.010
CAR2019 – CAR2020	-6.17810	-.72806	-2.761	12	.017

Source: Researcher Processed Data

a. NPL

Based on Table 4.10 it can be seen that Sig. (2-tailed) on the NPL has a value of 0.876. It states that the value of Sig. (2-tailed) > 0.05 so it can be stated that H0 is accepted and H1 is rejected, meaning that there is no significant difference between the health level of BUSND before and during the Covid-19 pandemic in the NPL ratio.

b. NIM

Furthermore, the NIM ratio shows the value of Sig. (2tailed) of 0.010, which is <0.05, meaning that there is a significant difference between the health level of BUSND before and during the Covid-19 pandemic, measured by the NIM ratio.

c. CAR

The CAR ratio produces a Sig value. (2-tailed) of 0.017. This means that the CAR ratio value <0.05, it can be concluded that H0 is rejected and H1 is accepted, thus stating that there is a significant difference between the health level of BUSND before and during the Covid-19 pandemic in the CAR ratio.

**Wilcoxon Test**

Table 12. Wilcoxon Test

	LDR2019 - LDR2020	GCG2019 – GCG 2020	ROA2019 – ROA2020
Z	-2.271	-1.414	-2.062
Asymp. Sig (2-tailed)	.023	.157	.039

Source: Researcher Processed Data

The Wilcoxon test was used on data that were not normally distributed. Based on the results of the Shapiro-Wilk normality test, it is known that the LDR, GCG, and ROA ratios have data that are not normally distributed. The Wilcoxon test results are as follows:

a. LDR

Based on table 4.11, it can be seen that Sig. (2-tailed) on the LDR has a value of 0.023. It states that the value of Sig. (2tailed) < 0.05, so it can be stated that H0 is rejected and H1 is accepted, meaning that there is a significant difference between the BUSND health level before and during the Covid-19 pandemic in the LDR ratio.

b. GCG

Furthermore, the GCG shows the value of Sig. (2-tailed) of 0.157, i.e. > 0.05, means that there is no significant difference between the health level of BUSND before and during the Covid-19 pandemic measured from the GCG aspect.

c. ROA

The ROA ratio produces the Sig value. (2-tailed) of 0.039. This means that with the CAR ratio value <0.05, it can be concluded that H0 is rejected and H1 is accepted, thus stating that there is a significant difference between the health level of BUSND before and during the Covid-19 pandemic in the ROA ratio.

**V. Conclusion**

Based on the results of research and data analysis that has been carried out, the following conclusions can be drawn:

- 1) The level of bank health before and during the Covid-19 pandemic was measured using the RGEC (Risk Profile, Good Corporate Governance (GCG), Earnings and Capital) method with Very Healthy criteria.
- 2) Risk Profile factor, measured by the NPL ratio based on different tests, shows no significant difference in the health level of BUSND before and during the Covid-19 pandemic. Meanwhile, measured from the LDR ratio, it was found that there was a significant difference in the health level of BUSND before and during the Covid-19 pandemic.
- 3) The GCG factor based on a different test showed no significant difference in the health level of BUSND before and during the Covid-19 pandemic.
- 4) The Earnings factor measured using the ROA ratio found a significant difference in the level of BUSND health before and during the Covid-19 pandemic. Likewise, measured by the NIM ratio,

the results showed a significant difference in the health level of BUSND before and during the Covid-19 pandemic.

- 5) The Capital factor as measured by the CAR ratio shows no significant difference in the health level of BUSND before and during the Covid-19 pandemic.

Based on the conclusions above, suggestions that can be given are as follows:

- 1) Assessment of the Risk Profile factor from the aspect of credit risk, the bank management should be more selective in distributing credit to customers to minimize the possibility of non-performing loans. Furthermore, from the aspect of liquidity risk, it is expected that banks will pay more attention to all bank liabilities, especially short-term obligations, by balancing credit distribution with funds received from third parties so that banks can maintain liquidity. BUSND needs to tighten the number of loans disbursed and maintain the precautionary principle in the coming year because if the LDR value is too low, it can indicate that the number of loans disbursed is decreasing.
- 2) The implementation of GCG principles in BUSND is good, but it is still expected to maximize good management governance to improve the bank's performance.
- 3) For the Earnings factor, BUSND should maximize the ROA and NIM aspects to optimize revenue in generating profits by encouraging efficiency by reducing the cost of funds (CoF).
- 4) The CAR value in BUSND is expected to be managed properly because a high CAR value does not always indicate the bank has carried out its intermediation activities well. It may be caused by the accumulation of funds.

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