

# J-BOM

**Journal of Business and Organization Management** 

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Comparison of Banking Profitability before and during Covid-19 at Banks

Registered on the IDX in 2017-2022



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# from the **DESK**of the **EDITOR**

Dear Readers,

Our journal enter second year! Yeay!

All of the topics issued in this edition are interesting. **Utomo** et al. invite us to discuss influence social media marketing activities, electronic word of mouth and brand equity on product purchase intention skincare local brand. **Jefrivanto** et al. talk about the influence of job embeddedness on employee performance mediated by work engagement and OCB at Klaten District, Panggabean et al. deliver their research result about the influence of leadership, work environment, and motivation on employee performance at PT Modern Polaris Teknologi Jakarta; Yanuri and **Subvantoro** tell us about the effect of transformational leadership style on performance of civil servant teacher at SMKN 3 Wonosari Gunungkidul with work commitment as an intervening variable; then Nursiyami and Mardiana present their research result about the role of job satisfaction as a mediation variable of the influence of work stress on teacher performance SMK 1 Gedangsari, Nuraini and Pratiwi write about the influence of workload and achievement motivation on performance at Yogyakarta State SMA/SMK Finance Section Official. Trihadi and Warsiki discuss the influence of work discipline, work motivation, and work environment on the performance of implementing staff in the Pamong Praja Police Unit in Yogyakarta, while **Bangun** et al. write about the comparison of banking profitability before and during covid-19 at banks registered on the IDX in 2017-2022.

We will publish a new edition every May and November, so make sure you take part in it.

Happy reading!

**Editorial Team** 



# Comparison of Banking Profitability before and during Covid-19 at Banks Registered on the IDX in 2017-2022

Alpius Priswanto Bangun<sup>1</sup>, Sri Isworo Ediningsih<sup>2</sup>, S.T. Haryono<sup>3</sup>

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#### **Abstract**

Covid-19 that occurred in Indonesia not only had an impact on life and health but was disrupted. Banking has also been affected by the Covid-19 pandemic, which is a threat as well as an opportunity for Indonesian banking performance. Covid-19 is a threat because the banking sector will experience several possible risks, for example, the risk of bad credit. So that good management is needed in maintaining its performance by increasing its profitability ratio. This study aims to discover the differences in profitability ROA, ROE, NIM/NOM, and BOPO before and during Covid-19. The population of this study are banking sector companies listed on the Indonesia Stock Exchange in the period 2017 to 2022 with a total of 47 banks. 30 banks meet the criteria to be sampled in this study. The results of the hypothesis testing in this study showed that there were differences in ROA, ROE, and NIM/NOM before and during Covid-19. Whereas in the BOPO ratio, there was no difference before and during Covid-19.

Keywords: Covid-19; Profitability

#### Introduction

The spread of the Covid-19 virus occurred in Indonesia very quickly, on March 2, 2020, to be precise, the first confirmed case of Covid was contracting from a Japanese citizen, this was the impact of causing panic in the national market, especially in society. Covid-19 that occurred in Indonesia not only had an impact on life and health which was disrupted but banking was also affected by the Covid-19 pandemic, which was both a threat and an opportunity for the performance of Indonesian banking. Covid-19 is a threat because the banking sector will experience several possible risks, such as bad credit risk, asset decline risk, market risk, and so on, which will ultimately affect banking performance and profitability (Wahyudi, 2020).

According to Henry (2017: 312), "Profitability is also known as the profitability ratio. Besides that, it aims to determine the company's ability to generate profits for a certain period. This ratio also aims to measure the effectiveness of management in running the company's operations. Meanwhile, according to Kasmir (2015: 196): The profitability ratio is a ratio to assess a company's ability to seek profit or profit in a certain period. Profit is the final result that every banking company wants to achieve. The profit reflects how banks showed their financial performance both before and when Covid-19 occurred. Banking profitability is measured based on OJK Circular Letter Number 12/SEOJK.03/2021 concerning commercial banks and Circular Letter Number 14/SEOJK.03/2021 concerning Islamic banks and Islamic business

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units. This study measures the performance of bank profitability using Return On Assets (ROA), Return On Equity (ROE), Net Interest Margin (NIM) / Net Operating Margin (NOM), and Operating Expenses Operating Income (BOPO).

The performance of several Sharia banks as reflected in profit (profitability) shows that Bank Mandiri Syariah in the first quarter of 2020, posted a profit of IDR 368 billion, an increase of 51.53% compared to the same period last year (yoy). This increase in profit was partly supported by financing which reached IDR 75.70 trillion, growing 9.14% compared to the first quarter of 2019 of IDR 69.36 trillion. BRI Syariah's net profit was IDR 75.15 billion in the first quarter of 2020, with a growth of 150% (yoy). As a comparison, in the same period last year, BRISyariah's profit was only IDR 30.05 billion. BCA Syariah in the first quarter of 2020 managed to record a profit of IDR 13.7 billion, a slight increase from the same period last year of IDR 12.4 billion. Islamic banks tend to bear smaller risks during the Covid-19 pandemic when compared to conventional bank conditions. Because the basic concept of Islamic banking is profit sharing, it can naturally mitigate the impact of the Covid-19 pandemic (sindonews.com, 2020). It is different from several conventional banks such as Bank Mandiri (BMRI), Bank Rakyat Indonesia (BRI), the National Bank of Indonesia (BNI), and the State Savings Bank (BTN). Based on the financial reports of each bank. BRI experienced a decrease in net profit of 45.70 percent, namely IDR 18.6 trillion in 2020. Bank Mandiri, experienced a decrease of 37.7 percent in 2020. BNI recorded a decrease in net profit of 78.7 percent in 2020, namely IDR 3.3 trillion compared to the previous year. Meanwhile, BTN experienced an increase in net profit of 671.6 percent, namely IDR 210 billion to 1.6 trillion in 2020. Because the concept of conventional banking is interest when Covid-19 occurred there were many bank debtors, micro, small and medium enterprises (MSMEs) difficulties in paying installments coupled with credit restructuring such as lowering interest rates, reducing interest arrears, this causes a decrease in profits received (databoks.katadata.co.id, 2021). This is in line with research conducted by (Mukhibad, 2022) showing that the results of a comparison of the performance of ROA, ROE, BOPO, and CAR show that Islamic banks have performed better than conventional banks in dealing with the Covid-19 pandemic.

Research conducted by Kusumawardani (2022) shows that there are differences in the profitability ratios of ROA, ROE, NIM/NOM, and BOPO of banking before and during Covid-19. Research conducted by Amrina et al (2021) Statistically also shows differences in bank profitability before and during the pandemic for ROA and NIM. This is also in line with research conducted by Niu and Wokas (2021), although using additional bank profitability ratios the results analyzed show significant differences from Return On Assets, Return On Equity and Operating Expenses and Operating Income at banks listed on the IDX when before and during the Covid-19 pandemic. While research conducted by Cantika (2022), ROA at Bank Mandiri showed a difference, while Bank BNI, BTN, and BRI had no difference in ROA before and during Covid-19. ROE at Mandiri and BRI showed a difference, while at Bank BNI and BTN, there was no difference in ROE before and during the Covid-19 pandemic. NIM before and during the Covid-19 pandemic at Bank Mandiri there were differences. Meanwhile, at Bank BNI, BRI, and BTN, there was no difference. There was no difference in BOPO before and during the Covid-19 pandemic at Bank Mandiri, BNI, BRI, and BTN. This is in line with research conducted by Saputra (2021) showing that there were differences in banks before and after the pandemic, namely CAR and NPL, but there were no differences in the ratios of ROE, ROA, BOPO, and LDR during the pandemic and before the pandemic. Based on the results of previous research which still showed inconsistency, it was deemed necessary to conduct further and

further research regarding banking profitability both before and during Covid-19. This study uses banking profitability ratios consisting of ROA, ROE, NIM/NOM, and BOPO by taking bank objects listed on the IDX.

#### Literature Review

# Signalling Theory

Brigham and Houston (2019: 439) states that Signaling Theory is a shareholder's view of the company's opportunities to increase the value of the company in the future. Signal theory is one of the pillar theories in understanding financial management. Signal theory emphasizes the importance of information released by banks on decisions about financial activities carried out by the public. This states that management always discloses information desired by investors, especially if the information is good news. Banking information is a signal for investors in making investment decisions. The goal of signaling theory is to increase the value of a company when it sells stock. Good quality companies will intentionally give signals to the market so that the market is expected to be able to distinguish between good and bad quality companies. For the signal to be effective, it must be able to be responded to by the market, be well perceived, and not easily imitated by other companies. Banking provides financial statement information that reflects good performance, which is a signal that the company has operated well. A good signal will also be responded to well by outsiders, so banks must continue to provide good signals to customers and the public so that customers gain a sense of trust and security guarantees regarding funds that have been deposited at the bank concerned.

# **Profitability**

Brigham & Houston (2019:118) Profitability is the result of the policies taken by management. Profitability ratios measure how much the level of profit earned by the company. The greater the level of profit, the better the management in managing the company. Profitability is management's ability to earn profit. This study uses banking profitability ratios consisting of ROA, ROE, NIM/NOM, and BOPO by taking bank objects listed on the IDX.

# Return On Assets (ROA)

According to Brigham and Houston (2018: 119) Return On Assets is a company's ability to generate profits with all the assets owned by the company. This ratio measures the return on total assets by dividing net income by total assets. The higher the Return On Assets, the better because this shows how the company can properly utilize assets in obtaining profits. Return On Assets has the following formula and criteria:

$$ROA = \frac{laba\ bersih\ setelah\ pajak}{total\ aset}$$
 (Brigham&Houston, 2018:119)

# Return On Equity (ROE)

According to Kasmir (2015: 104), Return On Equity is the ratio used to measure net profit after tax with own capital. The higher this ratio the better. This means that the company's position is getting stronger and vice versa. Return On Equity has the following formula and criteria:

$$ROE = \frac{laba\ bersih\ setelah\ pajak}{total\ Eauity}$$
 (Brigham&Houston, 2018:119)

# Net Interest Margin (NIM)/ Net Operating Margin (NOM)

According to Taswan (2010: 167), Net Interest Margin (NIM) is the ratio between net interest income to the average productive assets that generate interest. The higher the Net Interest Margin (NIM) ratio, the better the ability of the bank's management to manage its productive assets. While the Net Operating Margin (NOM) is the comparison between the income from the distribution of funds after profit sharing deducted by operational costs and the average productive assets. The higher the NOM, the higher the ROA, which means it will increase revenue sharing on productive assets managed by the bank so that performance will increase. Net Interest Margin (NIM) in Circular Letter Number 9/SEOJK.03/2020 and Net Operating Margin (NOM) in Circular Letter Number 14/SEOJK.03/2021 are formulated as follows:

$$NIM = rac{Pendapatan \ Bunga \ Bersih}{Rata-rata \ Aset \ Produktif \ Yang \ Menghasilkan \ Bunga}$$

$$NOM = \frac{Pendapatan\ Penyaluran\ Dana\ Setelah\ Bagi\ Hasil-Beban\ Operasional}{Rata-rata\ Aset\ Produktif}$$

# Operating Expenses and Operating Income (BOPO)

According to Veithzal (2013: 131), the definition of Operating Expenses and Operating Income (BOPO) is the ratio used to measure the level of efficiency and ability of a bank to carry out its operational activities. The higher the Operating Expenses and Operating Income (BOPO), the more inefficient the bank's operations are. Vice versa, the lower the Operating Expenses and Operating Income (BOPO), the more efficient the bank's operations are. Operating Expenses and Operating Income (BOPO) in Number 14 /SEOJK.03/2021 are formulated as follows:

$$BOPO = \frac{Beban\ Operasional}{Pendapatan\ Operasional}$$

#### Methods

# Types of research

According to Sugiyono (2015: 36), comparative research is comparing the state of one or more variables in two or more different samples or at different times. This research focuses on banking profitability at two different times, namely before and during Covid-19.

# Population and Sample

According to Sugiyono (2015: 80), Population is a generalization area consisting of objects/subjects that have certain qualities and characteristics determined by researchers to be studied and then drawn conclusions. In this study, the population observed was 47 banks listed on the Indonesia Stock Exchange for the period 2017 - 2022. Meanwhile, according to Sugiyono (2015: 81), the sample is part of the number and characteristics of this population. If the population is large, and it is impossible for the researcher to study everything in the population, for example, due to limited funds, manpower, and time, the researcher can use samples taken from that population. The technique in taking this sample is a purposive sampling technique, namely the technique of determining the sample with certain considerations. The sample in this study was selected by purposive sampling with the selection of banking criteria that earned successive profits during the study period. So that the sample that meets these criteria is 30 banks for 6 consecutive years earning profits from 2017 to 2022.

# Sources and Data Analysis Techniques

The source of this research is a bank listed on the Indonesia Stock Exchange. This study compares profitability which consists of Return On Assets (ROA), Return On Equity (ROE), Net Interest Margin (NIM) / Net Operating Margin (NOM), and Operating Expenses to Operating Income with two different times, namely before and when Covid-19. The objects used in this research are banks listed on the Indonesia Stock Exchange (IDX) for 2017 - 2022 which can be accessed through the website addresses: www.idx.co.id and ojk.go.id. Data analysis techniques use statistical techniques that include several types. The purpose of this analysis technique is to obtain relevant information contained in the data and use the results to solve problems (Ghozali, 2011). The data analysis technique used in the study used a pairwise different sample test.

# Different test

According to Widiyanto (2013: 35), the paired sample t-test is one of the test methods used to assess the effectiveness of the treatment, marked by a difference in the average before and after the treatment is given. The basic assumption of using this test is that observation or research for each pair must be under the same conditions. The mean difference must be normally distributed. Whereas for data that is not normally distributed, the Wilcoxon Signed Rank Test, also known as the Wilcoxon Match Pair, is a non-parametric test to analyze the significance of the difference between two ordinal-scale paired data but not normally distributed (Sugiyono, 2015:

	N	Minimum	Maximum	Means	Std. Deviation
ROA Before	90	.13	13.58	2.1686	2.17961
Current ROA	90	.04	11.36	1.8580	1.91366
ROE Before	90	.14	36.50	10.2694	6.97035
Current ROE	90	.22	24.68	9.2407	6.72815
NIM/NOM Before	90	.61	14.86	5.3466	2.15143
NIM/NOM Currently	90	-3.52	12.03	4.3301	2.12155
BOPO Before	90	58.07	119.43	81.1518	11.52360
BOPO When	90	31.05	111.70	79.0314	15.35287
Valid N (listwise)	90				

Table 1. Descriptive Statistics

151). To test the normality of the data whether it is normally distributed or not normally distributed, the Kolmogorov-Smirnov (KS) non-parametric statistical test can be used.

#### Results

The results of this study are in the form of information to test whether there is a significant difference in profitability before and during the presence of Covid-19. Based on the explanations and problems and the method of analysis in this study, namely by using a different test where the data is normally distributed using a paired sample t-test. Meanwhile, to test the difference in data that is not normally distributed using the Wilcoxon Signed Rank Test, also known as the Wilcoxon Match Pair. Testing was carried out using the SPSS program.

Based on Table 1, it can be interpreted that the average ROA before Covid-19 was 2.1686, while the average ROA during Covid-19 was 1.8580. The average ROA before Covid-19 was greater at 0.3106, this shows that banking performance as measured by the ROA profitability ratio experienced a decline during Covid-19. The average ROE before Covid-19 was 10.2694, while the average ROE during Covid-19 was 9.2407. The average ROE before Covid-19 was greater at 1.0287, this shows that banking performance as measured by the ROE profitability ratio experienced a decline during Covid-19. The average NIM/NOM before Covid-19 was 5.3466, while the average ROE during Covid-19 was 4.3301. The average ROE before Covid-19 was greater at 1.0165, this shows that banking performance as measured by the profitability ratio NIM/NOM experienced a decline during Covid-19. The BOPO average before Covid-19 was 81.1518, while the average BOPO during Covid-19 was 79.0314. The BOPO average before Covid-19 was greater at 2.1204, this shows that banking performance as measured by the BOPO profitability ratio experienced an increase during Covid-19. In this study, a normality test was carried out. The normality test is carried out to find out whether the data distribution used is normally distributed or not, the normality test is carried out before carrying out a different test to determine the type of different test that is carried out afterward. Does this research use the Wilcoxon Signed Rank Test or the paired sample t-test where if the significance value is > 0.05 then the data is normally distributed and vice versa if the

Table 2. Normality Test

	Kolmogorov-Smirnov a			Information
	Statistics	df	Sig.	
ROA Before	.197	90	.000	Not normal distribution
Current ROA	.209	90	.000	Not normal distribution
ROE Before	.111	90	.008	Not normal distribution
Current ROE	.130	90	.001	Not normal distribution
NIM/NOM Before	.136	90	.000	Not normal distribution
NIM/NOM Currently	.122	90	002	Not normal distribution
BOPO Before	077	90	.200 *	Normal distribution
BOPO When	092	90	056	Normal distribution

significance value is <0.05 then the data is not normally distributed. The data normality test used in this study is the Kolmogorov-Smirnov test. The results can be seen in Table 2.

Based on the data normality test above, the significant values of banking profitability before and during Covid-19 both ROA, ROE, and NIM/NOM were <0.05 respectively, indicating that the banking profitability data before and during Covid-19 were not normally distributed. Meanwhile, the banking profitability ratios before and during Covid-19 as measured by BOPO were >0.05 respectively, indicating that the data was normally distributed. The next step is to test the hypothesis, in this case, using a different test using the Wilcoxon Signed Rank test on the profitability ratios ROA, ROE, and NIM/NOM. Meanwhile, the Paired Sample T-Test was conducted on the BOPO profitability ratio. The results of the Wilcoxon Signed Rank and Paired Sample *T-Test tests* can be seen in the Table 3.

# Hypothesis 1 Return On Assets (ROA)

Table 3 shows that the significance value is 0.001 < 0.05, meaning that the hypothesis is accepted so that there is a significant difference in bank ROA profitability before and during Covid-19. Taking into account research data showing that banking performance as measured by the ROA profitability ratio has decreased, it can be said that banking ROA before was better than during Covid-19.

#### *Hypothesis 2 Return On Equity (ROE)*

Table 3 shows that the significance value is 0.017 < 0.05, meaning that the hypothesis is accepted so that there is a significant difference in bank ROE profitability before and during Covid-19. Taking into account research data showing that banking performance as measured by the ROE profitability ratio has decreased, it can be said that banking ROE before was better than during Covid-19.

Current ROA -Current ROE -NIM/NOM Current Prior **Prior ROA Prior ROE** NIM/NOM Z-3.257b --2.378b --6.142b -Symp. Sig. (2-001 .017 .000 tailed)

Table 3. Wilcoxon Signed Rank Test Statistics test

Table 4. Paired Sample T-Test

	Paired Differences								
		Means	std. Deviation	std. Error Means	95% Confidence Interval of the Difference		Interval of the		Sig.(2- tailed)
				meuns	Lower	Upper	-		
Pair 1	BOPO Prior - BOPO Current	2.120	11.549	1.217	298	4.539	1,742	89	085

#### Hypothesis 3 Net Interest Margin (NIM)/ Net Operating Margin (NOM)

Table 3 shows that the significance value is 0.000 <0.05, meaning that the hypothesis is accepted so that there is a significant difference in the profitability of banking NIM/NOM before and during Covid-19. Taking into account research data showing that banking performance as measured by the ROE profitability ratio has decreased, it can be said that the NIM/NOM of banking before was better than during Covid-19. Hypothesis 4 Operating Expenses and Operating Income

Table 4 shows that the significance value is 0.085 > 0.05, meaning that the hypothesis is rejected, so there is no significant difference in bank BOPO profitability before and during Covid-19. By paying attention to research data showing that banking performance as measured by the BOPO profitability ratio has increased, it can be said that banking BOPO during Covid-19 was better than BOPO before Covid-19.

#### Discussion

This study regarding the differences in banking profitability before and during the Covid-19 period 2017-2022, discussed as follows:

### Differences in Return On Assets (ROA) before and during Covid-19

Banking profitability as measured by ROA in Table 3 above shows a significance value of 0.001 <0.05, this indicates a significant difference in banking ROA profitability before and during Covid-19. This is in line with research conducted (Kusumawardani, 2022), and (Niu and Wokas, 2021), stating that banks have not been effective in utilizing their assets to generate profits during a pandemic. This can also be proven by the results of data processing that the ability of banks to gain profits by managing assets from before the pandemic to the time of the pandemic has decreased. This decline shows that banks must work hard to increase ROA. With increasing ROA, it shows that asset management in obtaining profits is more effective. ROA is calculated by dividing net profit after tax by total assets. If profits increase and total asset management improves or increases, ROA will also increase.

#### Differences in Return On Equity (ROE) before and during Covid-19

Banking profitability as measured by ROE in Table 3 above shows a significance value of 0.017 < 0.05, this indicates a significant difference in banking ROE profitability before and during Covid-19. This finding is supported by previous research conducted by (Kusumawardani, 2022) and (Niu and Wokas, 2021). The explanation for these findings is that during the research period, the average ROE value did experience a significant decline, meaning that the Covid-19 pandemic had an impact on banking profitability. ROE reflects how banks can manage their capital to make a profit, the fact is that when a pandemic occurred, banks allocated capital for loss reserves mandated by the OJK regarding "Credit Restructuring" in dealing with problems and risks that arose during the Covid-19 pandemic. This situation should not be allowed banks to find new ways and strategies to increase ROE, one of which is increasing profits by optimizing Financial Technology (Fintech) to reduce costs so that the allocation of capital funds is more efficient and attractive to investors (Cupian and Farid, 2020).

The difference between Net Interest Margin (NIM)/ Net Operating Margin (NOM) before and during Covid-19

Banking profitability as measured by NIM/NOM in Table 3 above shows a significance value of 0.00 < 0.05, this indicates a significant difference in the profitability of banking NIM/NOM before and during Covid-19. This finding is supported by previous research conducted by (Kusumawardani, 2022) and (Amrina et al, 2022). The explanation for these findings is that during the research period, the average value of NIM/NOM did experience a significant decline, meaning that the Covid-19 pandemic had an impact on banking profitability. NIM/NOM reflects how banks can manage net interest income received in managing their productive assets to generate profits. Meanwhile, the fact that there was a decrease in NIM/NOM during this pandemic shows that there was an increase in interest expenses during the pandemic. Banks are less able to manage their productive assets to generate net interest income during a pandemic. In addition, there was a credit restructuring that burdened banks, such as lowering interest rates, extending the term, and reducing interest arrears. This can lead to a decrease in interest income received by banks.

The difference between Operational Costs and Operating Income (BOPO) before and during Covid-19 at banks listed on the IDX

Banking profitability as measured by BOPO in table 4 above shows a significance value of 0.085 > 0.05, this indicates that there was no significant difference in bank BOPO profitability before and during Covid-19. This finding is supported by previous research conducted by (Lobiua et al, 2022), (Saputra et al, 2021), and (Marlina, 2020). This is because before and during the pandemic, banks were able to manage operational costs, which had an ideal average value from BOPO, namely no more than 85% based on Bank Indonesia Circular Letter Number 15/7/DPNP dated 08 March 2013. The BOPO average did experience a decrease indicating that performance during the pandemic was better than before the Covid-19 pandemic, but this decrease did not indicate a significant difference both before and during Covid-19. When a pandemic occurred, when viewed from the bank's operating income, it tended to decrease due to credit restructuring, while banking operational expenses tended to increase because to attract bank customers, they had to incur higher operating expenses, such as offering new facilities. Especially when Covid-19 and PSSB occurred, banks should tend to compete to innovate to make it easy for customers not to move to other banks. This indicates that income has decreased but expenses have increased, should banking performance as measured by BOPO increase. However, the reality is that banks can improve their performance in earning profits during Covid because when the adoption of financial technology is carried out, the scope of banks is wider and various facilities can be offered to customers so that they can reduce expenses incurred. So that at the time before and when the pandemic occurred there were no significant differences in bank BOPO profitability ratios.

#### Conclusion

Based on the analysis and testing of the hypotheses in this study, it can be concluded as follows that there are differences in Return On Assets (ROA), Return On Equity (ROE), Net Interest Margin (NIM)/ Net Operating Margin (NOM), before and during Covid-19 19 at banks listed on the IDX in 2017-2022. Meanwhile, there was no difference in Operating Expenses and Operating Income (BOPO) before and during Covid-19 for banks listed on the IDX in 2017-2022.

#### Limitations

This research has limitations, among others, this research only uses banks that were affected by Covid-19 and registered on the IDX in 2017-2022. The next limitation is that this research only uses annual reports in analyzing banking so the information obtained is quite limited.

# Suggestion

Based on the conclusions and limitations of this study, the researchers suggest other alternatives for future research in other sectors affected by Covid-19, such as tourism and transportation. Researchers also suggest that if you want to do the same research you can use other banks such as BPR and BPD.

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