

# Revision and resubmission of manuscript RES MILITARIS - 2363

By

#### Yusuf Iskandar

Management Department, Faculty of Economics and Business, Universitas Brawijaya, Malang, Indonesia \*Corresponding Author Email: yusufiskandarub@gmail.com

#### Moeljadi

Management Department, Faculty of Economics and Business, Universitas Brawijaya, Malang, Indonesia

Sumiati

Management Department, Faculty of Economics and Business, Universitas Brawijaya, Malang, Indonesia

#### Djumahir

Management Department, Faculty of Economics and Business, Universitas Brawijaya, Malang, Indonesia

### Abstract

Covid-19 has had an impact on the Indonesian banking industry, slowing the rate of economic growth, one of which is caused by slowing credit growth in the community, resulting in decreased profitability in banks. The goal of this study is to examine bank financial performance before and after the Covid-19 outbreak, as well as to provide alternative techniques for improving Indonesian bank financial performance. The data used in this research is secondary data obtained from annual reports on audited banking from 2018 to 2021, which can be accessed at the IDX website. This study employs multiple regression data analysis to assess performance using three financial ratios: capital adequacy ratio (CAR), non-performing loans (NPL), and return on assets (ROA) to GDP. The findings of this study show that the Capital Adequacy Ratio (CAR) and Return On Assets (ROA) variables have a significant positive effect on GDP in the phenomena before and after the Covid-19 pandemic, but the Non-Performing Loan (NPL) variable has a significant negative effect on GDP in the phenomena before and after the Covid-19 pandemic.

**Keywords**: financial performance; commercial bank; Covid-19 pandemic; Indonesia's Economic.

### Introduction

The Covid-19 epidemic has had a substantial economic impact on a number of nations throughout the world, including Indonesia. The most visible example was when the world stock market plummeted to its lowest point, which also occurred on the Indonesia Stock Exchange. This virus has impacted the manufacturing industry, small and medium-sized businesses, the financial industry, and individual worker earnings. It is unsurprising that many governments have finally offered economic stimulus to alleviate the effects of the economic crisis (Brodeur et al., 2021). The influence of Covid-19 appears to be having an effect in all spheres, particularly the economic boom, which has come to a standstill. This is due to the fact that

Published/ publié in *Res Militaris* (resmilitaris.net), vol.13, n°2, January Issue 2023



Covid-19 is spreading not just domestically but also worldwide. This delay was caused by deteriorating external conditions and a drop in domestic demand, which corresponded with deteriorating conditions for corporate and consumer development (Caraka et al., 2020). The Covid-19 epidemic had an influence on various business sectors, including Indonesia's banking industry, delaying economic development, decreasing credit growth, and creating a drop in banking profitability, (Alberto et al., 2022). As a result, we should expect bank financial performance to decrease in tandem with the spread of Covid-19 (Elnahass et al., 2020).

This study focuses on commercial banks' financial performance, commercial banks are for-profit organizations that collect funds from the public in the form of savings and reinvest them in the community in the form of credit in order to improve people's living standards (Maune, 2018). Bank BCA, Bank Mandiri, Bank BNI, Bank BRI, Bank Mega, Bank Danamon, Bank Permata, Bank Bumi Arta, Bank Capital Indonesia, Bank OCBC NISP, Bank CIMB Niaga, Bank Victoria Indonesia, Bank PAN Indonesia, Bank QNB Indonesia, and Bank Maybank Indonesia were the commercial banks used in this study. Banking financial performance may be used to examine operational activities in the banking industry, determining whether or not all activities have gone as planned, (Caclini, 2022). Moreover, banking financial performance may be utilized as material for analysing banks throughout time, (Gallo & Historiador, 2022). Financial performance is measured by analysing financial statements. In this situation, the financial statements must be reviewed in order for the reader to receive financial information about banks within a certain period, (Ichsan et al., 2021). Financial ratios obtained from financial statements can be used to do financial statement analysis (Restianti & Agustina, 2018). The capital adequacy ratio, non-performing loans, and return on assets are used as independent variables in this study, with gross domestic product as the dependent variable.

Many indicators are used to evaluate the efficacy of banking performance. Capital Adequacy Ratio (CAR) was used to quantify a bank's risk since it shows the degree of capital adequacy that is utilized as a container for the risk of loss (Supatmin, 2021). The following variable is Non-Performing Loans (NPL), which serves as an indication of management in the management of credit granted by banks (Muthoni et al., 2020). Return on Asset (ROA) is a form of profitability measure that is used to analyse a bank's success in creating profits by employing assets owned by the bank (Choiriyah et al., 2021). According to Russon, Manuel G and Bansal (2021), GDP is defined as the total value of all goods and services produced by a country in a given period or year, including goods and services produced by companies owned by residents of that country and residents of other countries who live in the country in question.

The capital adequacy ratio is used in this study to track the evolution of the gross domestic product's condition (GDP). It is the total amount of bank assets containing ratios (credit, securities, and claims on other banks) that are also financed from their own capital and obtain funds from outside the bank (Dao & Nguyen, 2020). Banks' ability to provide funds for the development of bank companies while also accommodating the risk of fund loss caused by bank operational activities (Anggari & Dana, 2020). The development of the capital adequacy ratio (CAR) at commercial banks over the last four years appears positive, remaining above 21% in 2018 to 2019, but in 2020 the value of the capital adequacy ratio continues to improve by 23%, and in 2021 it will remain above 27%. The increasing capital adequacy ratio in commercial banks over the last four years is due to banks' ability to manage effectively, namely by identifying, measuring, monitoring, and controlling risks that may affect the amount of bank capital (O Abba et al., 2018). The capital adequacy ratio, which has remained positive over the last four years, can have an impact on GDP. This can be seen in Indonesia's gross domestic product, which is still quite good, despite the fact that it was corrected at 2.07% in 2020 but *Res Militaris*, vol.13, n°2, January Issue 2023 2594



increased by 3.69% in 2021. According to this interpretation, the capital adequacy ratio in banks has a positive effect on GDP in the economy (Coscieme et al., 2020), The GDP in Indonesia, which had decreased but quickly increased the following year, could have been influenced by one of the capital owned by banks, such as the capital adequacy ratio, which was quite good during the covid-19 pandemic.

According to PBI No17/11/PBI/2015, the next variable using non-performing loans is the total number of loans with substandard, doubtful, or poor quality. This statement is consistent with Singh et al. (2021), which describes a situation in which the customer is unable to pay part or all of his agreed-upon obligations to the bank. Customers who are able to pay off their bank obligations will have an impact on the reduction of non-performing loans to banks (Yurttadur et al., 2019). Credit to banks can be managed properly, through credit distribution and credit repayment in accordance with applicable terms and conditions, so that NPL values are not affected (Purba et al., 2020). The lower the non-performing loan rate, the greater the positive impact on GDP (Mazreku et al., 2018). Looking at non-performing loans at commercial banks, which are still well controlled at around 1% in the last four years, this can have an impact on the GDP, which is still quite good. This is evident. Due to the covid-19 pandemic, the value of gross domestic product decreased to 2.07% in 2020, but increased to 3.69% in 2021, indicating that Indonesia's economic growth is increasing. This is due to the improving financial performance of service companies, one of which is banking companies, as evidenced by the continued value of non-performing loans in banks while the COVID-19 pandemic continues in Indonesia. The goal of this research is to determine the state of banking in Indonesia prior to and during the Covid-19 pandemic. Banking in Indonesia must develop a well-thought-out strategy for dealing with the Covid-19 pandemic. Banks must carry out their performance optimally in dealing with the conditions of the Covid-19 pandemic, namely by using its capital efficiently in carrying out its performance and effectively in increasing profit for banks.

The return on assets variable demonstrates a bank's ability to generate profits from asset management (Rajindra et al., 2021). The bank can declare that the company's performance is running effectively in improving its financial performance the more optimal it is in managing assets to earn income (Hanoon et al., 2020). The increase in profits obtained by banks may have an impact on the state of the gross domestic product (Ariwinata, I. P. S. and Badjra, 2021). This condition can be seen from 2018 to 2021, which has fluctuated; it can also be seen from 2019 to 2020, which has decreased, but has increased in 2021. Banking operations as a service company began to rise as a result of the covid-19 pandemic (Siska et al., 2021), and with an increase in ROA value, the development of gross domestic product also improved in 2021.

### Method

This study employs explanatory research, which involves testing hypotheses about the relationship between variables. Annual financial reports, annual reports, and the Indonesian Capital Market Directory (ICMD) for banking companies in 2018, 2019, 2020, and 2021 were used as secondary data in this study. The information was obtained from Universitas Brawijaya's Investment Gallery.

This study's population corresponds to the target population and has banking requirements that are listed on the Indonesia Stock Exchange, as well as bank financial statements that have been audited for the period 31 December 2018 - 2021. This study included

15 banks in its population. The observation period was four years, from 2018 to 2021, so there were 60 observations in this study (15 banks multiplied by four years = 60 observations). Table 2 shows the bank companies that made up the sample for this study, which were obtained from www.idx.co.id and accessed between August 1 and 7, 2022, based on the population in this study. The study's observation period is four years, from 2018 to 2021, so the total number of observations is (15 x 4 = 60). The companies listed below are data and research samples:

<b>X</b> 7 • 11	(	Commercial			
Variable	2018	2019	2020	2021	Bank Average 4 Years
Return On Assets	2,006	1,869333	1,444667	2,092667	1,85316675
Capital Adequacy Ratio	21,052	21,04733333	23,85466667	27,87266667	23,4566666675
Non- Performing Loan	1,262	1,636667	1,364667	1,094667	1,33950025
Gross domestic product	5,17	5,05	2,07	3,69	3,99

#### Table 1. Research Data

In this study, we use the concept of measuring return on assets, capital adequacy ratio, and non-performing loans to gross domestic product. When these variables improve in banking, they can have a positive impact on Indonesia's GDP, especially during the Covid 19 pandemic.

Table	2.	Research	Sample

No	Company	
1	Bank BCA	
2	Bank Mandiri	
3	Bank BNI	
4	Bank BRI	
5	Bank Mega	
6	Bank Danamon	
7	Bank Permata	
8	Bank Bumi Arta	
9	Bank Capital Indonesia	
10	Bank OCBC NISP	
11	Bank CIMB Niaga	
12	Bank Victoria Indonesia	
13	Bank PAN Indonesia	
14	Bank QNB Indonesia	
15	Maybank Indonesia	

The collected data was then analysed using multiple linear regression analysis with the SPSS program to determine the correlation and effect of the variables capital adequacy ratio (CAR), non-performing loans (NPL), and return on assets (ROA) on gross domestic product. The multiple linear regression equation model used in this study is as follows:

 $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e.$ 



Note: Y = gross domestic product  $\beta_0 = \text{constant}$   $\beta_{1-3} = \text{regression coefficient}$   $X_1 = \text{capital}$  adequacy ratio  $X_2 = \text{non-performing loan}$   $X_3 = \text{return on assets}$ e = disturbance error

Figure 1 below shows the conceptual design of the research showing the correlation between variables:

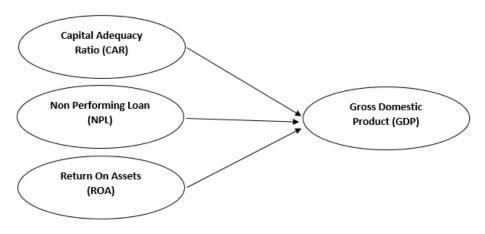


Figure 1. Research Design

## Results

Following the analysis, hypothesis testing was performed based on the significance value obtained from each variable. As a result, multiple linear regression analysis was performed to assess the impact of three independent variables (CAR, NPL, and ROA) on the dependent variable (gross domestic product). The results of the regression analysis performed with the SPSS 22.0 for Windows program are shown in Tables 3 and 4.

The results of multiple regression analysis yielded a F = 10,421 and a significance value of 0.000 (less than a = 0.05). These findings indicate that the independent variables CAR, NPL, and ROA all have a positive effect on the gross domestic product at the same time. Furthermore, because the significance value is less than 5%, the proposed regression model merits further investigation in terms of goodness of fit. This illustrates that the model described and the realization are compatible based on the data analysis performed.

The partial results of each variable's regression analysis, as well as the resulting regression equation model The significance values for the three independent variables CAR, NPL, and ROA are 0.041, 0.047, and 0.041, respectively, all of which are less than = 0.05. As a result, each variable has a partial positive effect on stock returns. Furthermore, using Table 4, we can construct multiple linear regression equations as follows:

 $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e$ Y = 2.549 + 0.056 X<sub>1</sub> + -0.316 X<sub>2</sub> + 0.306 X<sub>3</sub> + e

Table 3 ANOVA Output Regression Results *Res Militaris*, vol.13, n°2, January Issue 2023

2597



### Table 3. Anova Test

			ANOVA <sup>a</sup>			
Mode	el	Sum of Squares	df	Mean Square	F	Sig.
	Regression	33.814	3	11.271	10.421	.000 <sup>b</sup>
1	Residual	60.570	56	1.082		
	Total	94.385	59			

......

a. Dependent Variable: GDP

b. Predictors: (Constant), ROA, CAR, NPL

The explanation in table 3 shows that the variables capital adequacy ratio (CAR), nonperforming loans (NPL), and return on assets (ROA) all have a significant impact on GDP (GDP). It can be seen that the variables capital adequacy ratio (CAR), non-performing loans (NPL), and return on assets (ROA) can have an effect on the condition of Indonesia's GDP before and during the Covid-19. Because these ratios are still controlled, the conditions for the capital adequacy ratio (CAR), non-performing loans (NPL), and return on assets (ROA) before the Covid-19 pandemic in 2018 - 2019 look quite good.

Similarly, when the Covid-19 pandemic occurred in 2020 - 2021, the condition of the variable capital adequacy ratio (CAR), non-performing loans (NPL), and return on assets (ROA) increased as we approached 2021. In order to maintain system stability, Bank Indonesia issued Bank Indonesia Regulation Number 22/15/PBI/2020 concerning the third amendment to Bank Indonesia Regulation Number 19/3/PBI/2017 concerning short-term liquidity loans for conventional commercial banks. Financial policies established by the government and related authorities in anticipation of the Corona Virus 2019 (COVID-19) pandemic, bank Indonesia, as the financial system's authority, contributes to financial system stability, particularly in the banking sector, and helps maintain public trust in banks, namely by providing short-term liquidity loans, it is necessary to adjust in overcoming banking problems, namely by taking the precautionary principle into account. The numerous rules and policies issued by Bank Indonesia to anticipate the financial system and existing banking ratios as a result of the Covid-19 pandemic can then maintain or encourage better improvements in Indonesia's gross domestic product (GDP).

			Ç	oefficients <sup>a</sup>				
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig. Collinearity Sta		Statistics
		В	Std. Error	Beta			Tolerance	VIF
	(Constant)	2.549	.784		3.249	.002		
1	CAR	.056	.027	.242	2.087	.041	.855	1.170
Ľ	NPL	316	.155	266	-2.035	.047	.669	1.495
	ROA	.306	.146	.266	2.092	.041	.711	1.406

**Table 4.** Regression Coefficients and The Significance Values of Each Variable

a. Dependent Variable: GDP

### **Discussion**

### Effect of Capital Adequacy Ratio on Gross Domestic Product

For the capital adequacy ratio variable, the t-test statistic yields a value of 2.087 with a significance level of 0.041 (0.05). As a result, the capital adequacy ratio has a significant positive effect on GDP both before and after the Covid-19 pandemic. According to his statement, the increase in CAR was influenced by the increase in bank capital (Brastama &



Yadnya, 2020), It can also be used to accelerate public credit distribution and allow banks to expand their operational activities (Yu, 2017). The state of the banking sector's capital adequacy ratio, which continues to rise, has a direct impact on Indonesia's GDP growth (Haryanto et al., 2019).

Capital adequacy ratio based on (Sunaryo, 2020) is the amount of capital a bank owns that comes from the general public or from customers in the form of deposits, deposits, and savings. If the capital adequacy ratio falls, so does the bank's capital (Anggriani & Muniarty, 2020). The decline in CAR at banks can be attributed to a decrease in banks' ability to earn profits, an increase in the volume of lending to the public, and an increase in commercial banks' non-performing loans (Badawi, 2017). The decline in the capital adequacy ratio (CAR) makes bank company performance less than optimal, which can have an impact on declining GDP conditions caused by service companies, particularly in the banking sector.

#### Effect of Non-Performing Loan on Gross Domestic Product

The t-test statistic for non-performing loans yields a value of -2.035 with a level of significance of 0.047. (0.05). Non-performing loans have a significant negative impact on GDP, it can be concluded. Non-performing loans, according to the statement, are an indicator of credit risk that can become a burden for banks (Singh et al., 2021), However, given the recent development of NPLs, it has continued to decline due to the community's ability to pay its obligations to banks (Ofria & Mucciardi, 2022). The lower the bank's level of non-performing loans, the better its financial performance can be stated (Amalia & Nugraha, 2021). Banks' operating efficiency has increased as non-performing risks have been reduced (Khan et al., 2020). As long as the Covid-19 pandemic persists, it may have an impact on Indonesia's GDP, which is higher than in other countries.

Non-performing loans as defined by (Prasanth et al., 2020) Specifically, one measure of bank business risk that demonstrates the risk of nonperforming loans in a bank. Non-performing loans in banks can have a negative impact on bank performance if they rise. The rise in NPLs is one of the causes of non-current loan principals and interest paid by customers to banks, which can lead to subpar bank performance (Mazreku et al., 2018). The rise in non-performing loans to banks as service providers has the potential to have a direct impact on Indonesia's GDP conditions.

#### Effect of Return on Assets on Gross Domestic Product

The variable return on assets t-test statistic yields a value of 2.092 with a significance level of 0.041. (0.05). Based on these findings, we can conclude that asset return has a significant positive effect on GDP. This statement implies that the bank's ability to increase overall profits from its operational activities influences the increase in return on assets (Rahadian & Permana, 2021), Specifically, by increasing public trust so that they invest their capital to be deposited in banks and increase lending to the public. Given the increasingly effective performance of banks, it has the potential to increase bank profits (Astawa et al., 2019). Increasing the return on assets (ROA) in banking benefits Indonesia's GDP (El Khoury et al., 2021), which appears to be pretty good in the context of the covid-19 pandemic.

Return on assets as defined by (Sani Akbar et al., 2021) is a metric that measures the assets owned by banks in order to generate profits; however, if a bank company has difficulty increasing its profits due to less-than-ideal lending to the community, then bank profits will fall. Conditions of declining return on assets (ROA) can lead to subpar banking performance (Buallay, 2019), This will have an effect on Indonesia's gross domestic product (GDP).

### **Theoretical Implications**

Capital adequacy ratio, non-performing loan, and return on assets can all be used to evaluate a bank's financial performance over time. Financial ratios in banks serve several purposes, including determining the bank's capital adequacy in its operations, measuring the ability to settle short-term obligations, determining the ability to generate profits, and measuring the ability to face risks from its operational activities. The more effective and optimal the bank's financial ratio management is, the better the bank's performance will be.

The findings of this study explain the pre- and ongoing Covid 19 in bank companies in Indonesia. It can be seen that banks' capital adequacy is still seen as adequate, banks' ability to carry out their short-term obligations is running smoothly, and banks are still able to earn profits despite the fact that there was a Covid 19 pandemic. This explanation is supported by Kasmir's (2020) theory, which states that companies can run their operations optimally, resulting in increased profits.

### **Practical Implications**

Gross domestic product is directly related to output. Economic growth is critical for the sustainability of the Indonesian economy, and the service sector, such as banking, is one of the factors that can affect GDP, as evidenced by its financial ratios. This could be one of the pillars for the growth of Indonesia's GDP.

This study demonstrates that the capital adequacy and return on assets ratio has a positive and significant effect on GDP, with an increase in capital adequacy and return on assets being very influential in increasing GDP. Similarly, non-performing loans have a negative and significant effect on GDP, implying that the more stable a bank's bad loans, the higher GDP.

These findings can be used by banks to develop company policies on information guidelines for bank performance reports on economic conditions. These findings can be used to conduct additional research for future researchers, specifically on Indonesian inflation, interest rates, and exchange rates. The inclusion of inflation, interest rates, and exchange rates is expected in future research to yield more developed results.

### Conclusion

At commercial banks listed on the Indonesian stock exchange, the ratios of capital adequacy ratio (CAR), non-performing loan (NPL), and return on assets (ROA) all have a positive and significant effect on GDP (GDP). For the capital adequacy ratio (CAR) and return on assets (ROA) variables that have a significant positive effect on GDP in the phenomena before and after the Covid-19 pandemic, it can be seen that the CAR and ROA ratios still look quite good before and during the COVID-19 pandemic.

In the phenomena before and after the Covid-19 pandemic, the non-performing loan (NPL) variable has a significant negative effect on GDP. NPL conditions are also still relatively good; since the Covid-19 pandemic, the NPL value at commercial banks has decreased, so that it can be concluded that the capital adequacy ratio (CAR), non-performing loans (NPL), and return on assets (ROA) for commercial banks listed on the Indonesian stock exchange can increase GDP in Indonesia before and after the Covid-19 pandemic.

## **Recommendation and future reseach**

Banking companies must continue to monitor the value of non-performing loans because rising NPL values can have a negative impact on bank performance. Banks that can effectively and optimally manage their bad loan portfolios can improve company performance. Similarly, in the banking system, the capital adequacy ratio and return on assets must be continuously increased in order to generate income for additional capital for banks. The more effective the bank is as a service company in maintaining the ratios of CAR, NPL, and ROA, the greater the impact on the gross domestic product in creating a better Indonesian economy. In order to develop further research, suggestions for additional research can include inflation, interest rates, and exchange rates.

### **Bibliography**

- Amalia, S., & Nugraha, N. M. (2021). The Impact of Financial Ratio Indicators on Banking Profitability in Indonesia. Turkish Journal of Computer and Mathematics Education, 12(8), 580–588.
- Anggari, N. L. S., & Dana, I. M. (2020). The Effect of Capital Adequacy Ratio, Third Party Funds, Loan to Deposit Ratio, Bank Size on Profitability in Banking Companies on IDX. American Journal of Humanities and Social Sciences Research, 4(12), 334–338. www.ajhssr.com
- Anggriani, R., & Muniarty, P. M. (2020). The Effect of Non-Performing Loans (NPL) and Capital Adequacy Ratio (CAR) on Profitability (ROA) at PT. Bank Central Asia (BCA), TBK. Ilomata International Journal of Management, 1(3), 121–126. https://doi.org/10.52728/ijjm.v1i3.121
- Ariwinata, I. P. S. and Badjra, I. B. (2021). Profitability, Company Size, and Gross Domestic Product on Dividend Policy (Empirical Study of Service Companies ... American Journal of Humanities and Social Sciences Research, 5(4), 549–554.
- Astawa, K., Suhadak, & Rahayu, S, M. (2019). Finance and Management Scholar at Riphah International University Islamabad, Pakistan, Faculty of Management Sciences. Research Journal of Finance and Accounting, 1(Ic), 203–222. https://doi.org/10.7176/RJFA
- Badawi, A. (2017). Effect of Credit Risk, Liquidity Risk, and Market Risk Banking to Profitability Bank (Study on Devised Banks in Indonesia Stock Exchange). European Journal of Business and Management, 9(29), 1–8. www.iiste.org
- Brastama, R. F., & Yadnya, I. P. (2020). The Effect of Capital Adequacy Ratio and Non Performing Loan on Banking Stock Prices with Profitability as Intervening Variable. American Journal of Humanities and Social Sciences Research (AJHSSR), 4(12), 43– 49. https://www.ajhssr.com/the-effect-of-capital-adequacy-ratio-and-non-performingloan-on-banking-stock-prices-with-profitability-as-intervening-variable/
- Brodeur, A., Gray, D., Islam, A., & Bhuiyan, S. (2021). A literature review of the economics of COVID-19. Journal of Economic Surveys, 35(4), 1007–1044. https://doi.org/10.1111/joes.12423
- Buallay, A. (2019). Is sustainability reporting (ESG) associated with performance? Evidence from the European banking sector. Management of Environmental Quality: An International Journal, 30(1), 98–115. https://doi.org/10.1108/MEQ-12-2017-0149
- Caclini, M. P. (2022). Financial Model : A Practical Tool for Financial Management Practices of Micro-enterprises in Ifugao , Philippines By I . Introduction. Res Militaris, 12(6), 21–36.

Caraka, R. E., Lee, Y., Kurniawan, R., Herliansyah, R., Kaban, P. A., Nasution, B. I., Gio, P. *Res Militaris*, vol.13, n°2, January Issue 2023 2601



U., Chen, R. C., Toharudin, T., & Pardamean, B. (2020). Impact of COVID-19 large scale restriction on environment and economy in Indonesia. Global Journal of Environmental Science and Management, 6(Special Issue), 65–84. https://doi.org/10.22034/GJESM.2019.06.SI.07

- Choiriyah, C., Fatimah, F., Agustina, S., & Ulfa, U. (2021). The Effect Of Return On Assets, Return On Equity, Net Profit Margin, Earning Per Share, And Operating Profit Margin On Stock Prices Of Banking Companies In Indonesia Stock Exchange. International Journal of Finance Research, 1(2), 103–123. https://doi.org/10.47747/ijfr.v1i2.280
- Coscieme, L., Mortensen, L. F., Anderson, S., Ward, J., Donohue, I., & Sutton, P. C. (2020). Going beyond Gross Domestic Product as an indicator to bring coherence to the Sustainable Development Goals. Journal of Cleaner Production, 248, 119232. https://doi.org/10.1016/j.jclepro.2019.119232
- Dao, B. T. T., & Nguyen, K. A. (2020). Bank capital adequacy ratio and bank performance in Vietnam: A simultaneous equations framework. Journal of Asian Finance, Economics and Business, 7(6), 39–46. https://doi.org/10.13106/JAFEB.2020.VOL7.NO6.039
- El Khoury, R., Nasrallah, N., & Alareeni, B. (2021). ESG and financial performance of banks in the MENAT region: concavity–convexity patterns. Journal of Sustainable Finance and Investment, 0(0), 1–25. https://doi.org/10.1080/20430795.2021.1929807
- Elnahass, M., Quang, V., & Li, T. (2020). Global Banking Stability in the Shadow of Covid-19 Outbreak Global Banking Stability in the Shadow of Covid-19 Outbreak. Journal of International Financial Markets, Institutions and Money, Volume 72, (September).
- Gallo, A. C. M., & Historiador, V. R. G. (2022). Financial Literacy of the Select Micro and Small Enterprise Owners and Business Performance I . Framework Of the Study II . Materials and Methods. Res Militaris, 12(6), 155–167.
- Hanoon, R. N., Rapani, N. H. A., & Khalid, A. A. (2020). The correlation between internal control components and the financial performance of iraqi banks a literature review. Journal of Advanced Research in Dynamical and Control Systems, 12(4 Special Issue), 957–966. https://doi.org/10.5373/JARDCS/V12SP4/20201567
- Haryanto, S., Chandrarin, G., & Bachtiar, Y. (2019). Bank Size, Risk and Market Discipline with A Deposit Insurance: Evidence of Banking in Indonesia. AFRE (Accounting and Financial Review), 2(2). https://doi.org/10.26905/afr.v2i2.3717
- Ichsan, R. N., Suparmin, S., Yusuf, M., & Ismal, R. (2021). Determinant of Sharia Bank 's Financial Performance during the Covid-19 Pandemic. Budapest International Research and Critics Institute-Journal (BIRCI-Journal), Volume 4(1), 298–309.
- Kasmir (2020). Studi Kelayakan Bisnis, Jakarta : Prenadamedia Group.
- Khan, M. A., Siddique, A., & Sarwar, Z. (2020). Determinants of non-performing loans in the banking sector in developing state. Asian Journal of Accounting Research, 5(1), 135– 145. https://doi.org/10.1108/AJAR-10-2019-0080
- Maune, A. (2018). Volume XIII Editorial Board Editor in Chief Executive Manager: Redactors. Journal of Applied Economic Sciences, XIII(8).
- Mazreku, I., Morina, F., Misiri, V., Spiteri, J. V., & Grima, S. (2018). Determinants of the level of non-performing loans in commercial banks of transition countries. European Research Studies Journal, 21(3), 3–13. https://doi.org/10.35808/ersj/1040
- Muthoni, M. I., Mwangi, L. W., & Muathe, S. M. A. (2020). CREDIT MANAGEMENT PRACTICES AND LOAN PERFORMANCE: EMPIRICAL EVIDENCE FROM COMMERCIAL BANKS IN KENYA. International Journal of Current Aspects in Finance, Banking and Accounting, 2(1), 51–63. https://doi.org/10.35942/ijcfa.v2i1.105
- O Abba, G., Okwa, E., Soje, B., & N Aikpitanyi, L. (2018). Determinants of Capital Adequacy Ratio of Deposit Money Banks in Nigeria. Journal of Accounting & Marketing, 07(02). https://doi.org/10.4172/2168-9601.1000271



- Ofria, F., & Mucciardi, M. (2022). Government failures and non-performing loans in European countries: a spatial approach. Journal of Economic Studies, 49(5), 876–887. https://doi.org/10.1108/JES-01-2021-0010
- Prasanth, S., Nivetha, P., Ramapriya, M., & Sudhamathi, S. (2020). Factors affecting non performing loan in India. International Journal of Scientific and Technology Research, 9(1), 1654–1657.
- Purba, I. G., Warsiman, W., & Sipahutar, E. S. (2020). Principles of Credit Analysis in BUMN/BUMD Banks in Indonesia. Budapest International Research and Critics Institute (BIRCI-Journal): Humanities and Social Sciences, 3(4), 3884–3893. https://doi.org/10.33258/birci.v3i4.1454
- Rahadian, R., & Permana, D. (2021). The Impact of Non-Performing Loans, Return on Assets, Return on Equity, and Loan to Deposit Ratios on Minimum Capital Adequacy Requirement Based on Commercial Banks for Business Activities (BUKU) I 2015-2020. European Journal of Business and Management Research, 6(6), 42–46. https://doi.org/10.24018/ejbmr.2021.6.6.1084
- Rajindra, R., Guasmin, G., Burhanuddin, B., & Anggraeni, R. N. (2021). Costs and Operational Revenue, Loan to Deposit Ratio Against Return on Assets : A Case Study in Indonesia. Journal of Asian Finance, Economics and Business, 8(5), 109–115. https://doi.org/10.13106/jafeb.2021.vol8.no5.0109
- Restianti, T., & Agustina, L. (2018). The Effect of Financial Ratios on Financial Distress Conditions in Sub Industrial Sector Company. Accounting Analysis Journal, 7(1), 25– 33. https://doi.org/10.15294/aaj.v5i3.18996
- Russon, Manuel G and Bansal, V. (2021). A Refined Model to Predict Near-Term US Real GDP Growth. Journal of Applied Business and Economics, Vol.23(5), 30–36.
- Sani Akbar, J., Pertiba, S., & Pinang, P. (2021). the Effect of Return on Assets and Return on Equity on Price To Book Value on Banking Companies Listed on the Indonesia Stock Exchange. Business and Accounting Research (IJEBAR) Peer Reviewed-International Journal, 5(2), 2614–1280. http://www.jurnal.stie-aas/ijebar
- Singh, S. K., Basuki, B., & Setiawan, R. (2021). The Effect of Non-Performing Loan on Profitability: Empirical Evidence from Nepalese Commercial Banks. Journal of Asian Finance, Economics and Business, 8(4), 709–716. https://doi.org/10.13106/jafeb.2021.vol8.no4.0709
- Siska, E., Ahmed, A., Gamal, M., Ameen, A., & Amalia, M. M. (2021). Analysis Impact of Covid-19 Outbreak on Performance of Commercial Conventional Banks : Evidence from Indonesia. International Journal of Social and Management Studies, 02(06), 8–16.
- Sunaryo, D. (2020). The Effect Of Capital Adequacy Ratio (CAR), Net Interest Margin (NIM), Non-Performing Loan (NPL), and Loan To Deposit Ratio (LDR) Against Return On Asset (ROA) In General Banks In Southeast Asia 2012-2018. Ilomata International Journal of Management, 1(4), 149–158. https://doi.org/10.52728/ijjm.v1i4.110
- Supatmin. (2021). The Effect of Capital Adequacy Ratio (CAR) and Loan To Deposit Ratio (LDR) on Return On Assets (ROA) at PT Bank BNI (Persero) Period 2008 – 2017. Journal of Business, Management, and Accounting E-ISSN 2714-870X P, 3(1), 295– 302.
- Yu, H. (2017). Motivation behind China's 'one belt, one road' initiatives and establishment of the Asian infrastructure investment bank. Journal of Contemporary China, 26(105), 353–368. https://doi.org/10.1080/10670564.2016.1245894
- Yurttadur, M., Celiktas, E., & Celiktas, E. (2019). The Place of Non-performing Loans in the Turkish Banking Sector. Procedia Computer Science, 158, 766–771. https://doi.org/10.1016/j.procs.2019.09.113



## **Respond To Reviewers Comments**

### Comments from Reviewer A and respondses to reviewer

Review of the literature on the variables and concepts need to be more exhaustive.

### **Responds to comments 1**

Thank you for your feedback; we have added several literature reviews, particularly on the variables measured. In this study, we use the concept of measuring return on assets, capital adequacy ratio, and non-performing loans to gross domestic product. When these variables improve in banking, they can have a positive impact on Indonesia's GDP, especially during the Covid 19 pandemic.

Add more literature.

### Respond to comment 2:

Thank you for the reviewers' input; we have added the most recent literature, particularly from the publishers of the Ris Militari journal. Problems in 2021 and 2022.

# The background needs restructuring to highlight the objective of the study. Respond to comment 3:

Thank you for your feedback; we have added the research objectives you requested in the introductory section as follows. The goal of this research is to determine the state of banking in Indonesia prior to and during the Covid-19 pandemic. Banking in Indonesia must develop a well-thought-out strategy for dealing with the Covid-19 pandemic. Banks must carry out their performance optimally in dealing with the conditions of the Covid-19 pandemic, namely by using its capital efficiently in carrying out its performance and effectively in increasing profit for banks.

### Methodology section need more clear. Respond to comment 4:

Thank you for your suggestions to improve and clarify the methodology we used. In this study, we use the concept of measuring return on assets, capital adequacy ratio, and non-performing loans to gross domestic product. When these variables improve in banking, they can have a positive impact on Indonesia's GDP, especially during the Covid 19 pandemic.

### Purpose of the study should be elaborated extensively and logically. Respond to comment 5:

Thank you for your input; in response to your suggestion, we have described the objectives in comment number 2.

# Please check your references.

### Respond to comment 6:

Thank you for your diligence; we have located several references. There are a few references that do not follow the rules, but we have revised them.

### Comments from Reviewer B and respondses to reviewer Add literature review of the study. Respond to comment 1:

This study has been added to and cited in the Res Militaris journal, namely:

Alberto, D., Gaviria, G., Alberto, D., & Arango, G. (2022). Financial Audit Key Audit Issues and COVID-19. Res Militaris, 12(6), 55–63.



- Caclini, M. P. (2022). Financial Model : A Practical Tool for Financial Management Practices of Micro-enterprises in Ifugao , Philippines By I . Introduction. Res Militaris, 12(6), 21–36.
- Gallo, A. C. M., & Historiador, V. R. G. (2022). Financial Literacy of the Select Micro and Small Enterprise Owners and Business Performance I . Framework Of the Study II . Materials and Methods. Res Militaris, 12(6), 155–167.

### Purpose of the study should be elaborated extensively and logically. Respond to comment 2:

The goal of this research is to determine the state of banking in Indonesia prior to and during the Covid-19 pandemic. Banking in Indonesia must develop a well-thought-out strategy for dealing with the Covid-19 pandemic. Banks must carry out their performance optimally in dealing with the conditions of the Covid-19 pandemic, namely by using its capital efficiently in carrying out its performance and effectively in increasing profit for banks.

Despite some recent references are used but some of the Literature references should be updated which would not be prior to 2016.

### Respond to comment 3:

There are seven references from the previous script menu, which are as follows:

- Agbeja, O., Adelakun, O. J., & Olufemi, F. I. (2015). Capital Adequacy Ratio and Bank Profitability in Nigeria : A Linear Approach. International Research Journal of Finance and Economics, 2(3), 91–99.
- Dao, B. T. T., & Nguyen, K. A. (2020). Bank capital adequacy ratio and bank performance in Vietnam: A simultaneous equations framework. Journal of Asian Finance, Economics and Business, 7(6), 39–46. <u>https://doi.org/10.13106/JAFEB.2020.VOL7.NO6.039</u>
- Bateni, L., Vakilifard, H., & Asghari, F. (2014). The Influential Factors on Capital Adequacy Ratio in Iranian Banks. International Journal of Economics and Finance, 6(11), 108– 116. <u>https://doi.org/10.5539/ijef.v6n11p108</u>
- Anggriani, R., & Muniarty, P. M. (2020). The Effect of Non-Performing Loans (NPL) and Capital Adequacy Ratio (CAR) on Profitability (ROA) at PT. Bank Central Asia (BCA), TBK. Ilomata International Journal of Management, 1(3), 121–126. <u>https://doi.org/10.52728/ijjm.v1i3.121</u>
- In terms of the documents cited, three books have been published in recent years: Darmawi (2011), Fahmi (2011), and Kasmir (2011). (2011). We no longer use it, so we will replace it with a journal.
- Darmawi, H. (2011). Manajemen Perbankan. Jakarta: Bumi Aksara.
- Fahmi, I. (2014). Pengantar Perbankan: Teori Dan Aplikasi. Bandung: Alfabeta.
- Kasmir, S. E. (2011). Analisis Laporan Keuangan, Jakarta: PT. Raja Grafindo Persada.
- Sunaryo, D. (2020). The Effect Of Capital Adequacy Ratio (CAR), Net Interest Margin (NIM), Non-Performing Loan (NPL), and Loan To Deposit Ratio (LDR) Against Return On Asset (ROA) In General Banks In Southeast Asia 2012-2018. Ilomata International Journal of Management, 1(4), 149–158. <u>https://doi.org/10.52728/ijjm.v1i4.110</u>
- Prasanth, S., Nivetha, P., Ramapriya, M., & Sudhamathi, S. (2020). Factors affecting non performing loan in India. International Journal of Scientific and Technology Research, 9(1), 1654–1657.
- Sani Akbar, J., Pertiba, S., & Pinang, P. (2021). the Effect of Return on Assets and Return on Equity on Price To Book Value on Banking Companies Listed on the Indonesia Stock Exchange. Business and Accounting Research (IJEBAR) Peer Reviewed-International Journal, 5(2), 2614–1280. <u>http://www.jurnal.stie-aas/ijebar</u>

Osei-Assibey, E., & Asenso, J. K. (2015). Regulatory capital and its effect on credit growth, *Res Militaris*, vol.13, n°2, January Issue 2023 2605

non-performing loans and bank efficiency: Evidence from Ghana. Journal of Financial Economic Policy, 7(4), 401–420. <u>https://doi.org/10.1108/JFEP-03-2015-0018</u>

- Ofria, F., & Mucciardi, M. (2022). Government failures and non-performing loans in European countries: a spatial approach. Journal of Economic Studies, 49(5), 876–887. https://doi.org/10.1108/JES-01-2021-0010
- Parastoo, S., So, S., & Saeidi, P. (2015). How does corporate social responsibility contribute to fi rm fi nancial performance? The mediating role of competitive advantage, reputation , and customer satisfaction. 68, 341–350. https://doi.org/10.1016/j.jbusres.2014.06.024
- Hanoon, R. N., Rapani, N. H. A., & Khalid, A. A. (2020). The correlation between internal control components and the financial performance of iraqi banks a literature review. Journal of Advanced Research in Dynamical and Control Systems, 12(4 Special Issue), 957–966. <u>https://doi.org/10.5373/JARDCS/V12SP4/20201567</u>

### Please add implications to the study. Respond to comment 4:

Thank you for your feedback on adding research implications. We have added implications in this paper in the form of theoretical implications and practical implications, but those written in blue font will remain.

### **Theoretical Implications**

Capital adequacy ratio, non-performing loan, and return on assets can all be used to evaluate a bank's financial performance over time. Financial ratios in banks serve several purposes, including determining the bank's capital adequacy in its operations, measuring the ability to settle short-term obligations, determining the ability to generate profits, and measuring the ability to face risks from its operational activities. The more effective and optimal the bank's financial ratio management is, the better the bank's performance will be.

The findings of this study explain the pre- and ongoing Covid 19 in bank companies in Indonesia. It can be seen that banks' capital adequacy is still seen as adequate, banks' ability to carry out their short-term obligations is running smoothly, and banks are still able to earn profits despite the fact that there was a Covid 19 pandemic. This explanation is supported by Kasmir's (2020) theory, which states that companies can run their operations optimally, resulting in increased profits.

Kasmir (2020). Studi Kelayakan Bisnis, Jakarta : Prenadamedia Group.

### **Practical Implications**

Gross domestic product is directly related to output. Economic growth is critical for the sustainability of the Indonesian economy, and the service sector, such as banking, is one of the factors that can affect GDP, as evidenced by its financial ratios. This could be one of the pillars for the growth of Indonesia's GDP.

This study demonstrates that the capital adequacy and return on assets ratio has a positive and significant effect on GDP, with an increase in capital adequacy and return on assets being very influential in increasing GDP. Similarly, non-performing loans have a negative and significant effect on GDP, implying that the more stable a bank's bad loans, the higher GDP.

These findings can be used by banks to develop company policies on information guidelines for bank performance reports on economic conditions. These findings can be used to conduct additional research for future researchers, specifically on Indonesian inflation,



interest rates, and exchange rates. The inclusion of inflation, interest rates, and exchange rates is expected in future research to yield more developed results.

# Please add future directions of this study.

### Respond to comment 5:

In order to develop further research, suggestions for additional research can include inflation, interest rates, and exchange rates.

### Proofread the work.

#### Respond to comment 6:

Thank you for your input, but I had already completed the proofreading process, which was carried out by a credible institution in Indonesia.

### Please check missing references.

#### Respond to comment 7:

ichsan that have not been completed by year and have been revised as follows are missing references that have been added.

In this situation, the financial statements must be reviewed in order for the reader to receive financial information about banks within a certain period, (Ichsan et al., 2021)

### Plagiarism (11 % Result)

→ C  app.grammarly.com/ddocs/1900535532	아 윤 ☆ 🔐	C 🔓 🛪 🗆 🎯
THE+EFFECT+OF+FINANCIAL+PERFORMANCE+ON+COMMERCIAL+BANKS	The Plagarism () Back to all suggestions X	HIDE ASSISTANT >>
The Effect of Financial Performance on Commercial Bank Before, During and Post Covid-19 Pandemic on Indonesia's Economic		88 Overall score See performance
Yusuf Iskandar1*, Moeljadi2, Sumiati3, Djumahir4		Academic: APA >
1234Management Department, Faculty of Economics and Business,		All suggestions
Universitas Brawijaya, Malang, Indonesia		
*Corresponding Author: yusufiskandarub@gmail.com		Correctness 75 alerts
Abstract		
Covid-19 has had an impact on the Indonesian banking industry, slowing		Clarity A bit unclear
the rate of economic growth, one of which is caused by slowing credit		A bit unclear
growth in the community, resulting in decreased profitability in banks. The	1% of your text matches this source:	Engagement
goal of this study is to examine bank financial performance before and	ERIC - EJ1304384 - Using Chemistry Concepts I	Very engaging
after the Covid-19 outbreak, as well as to provide alternative techniques	https://eric.ed.gov/?q=source%3a%22journal+of+college+st	
for improving Indonesian bank financial performance. The data used in	Click to copy reference	Delivery Just right
this research is secondary data obtained from annual reports on audited	ERIC - EJ1304384 - Using Chemistry Concepts Inventory to I	outright
banking from 2018 to 2021, which can be accessed at the IDX website.	⑦ 1 MATCH 🔟	Style guide
This study employs multiple regression data analysis to assess		All good
		and the second



### Invoice Payment - Paid

- B	CA	PENGIRIMAN UANG FUND TRANSFER			
and the second se	the statestruct and conductant?	. 4 "	JIZZD		
Tariggie / Date	(114) (017) (PA)		Presenter Rand / Talagraphic Aller	ATTEN A	
A STREET BOLLOW	PENERSAA BENERSCARP		BANK PENERIN	A COLUMN TWO IS NOT	
AND TRACKS	CU Intellectual Echoe G	DITAL INDITICY	(ine transp 2-40	iente de la companya	
		1000 AUT	Bangermann		
THE RELEASE CLASSINGS FOR STREET		Presidentari Attolimeteri Attolimeteri			
S ADDARS BADDER	- Antering	COLARIAN ')		A OF	
a stary	HIDE NELAAA	Contribution a Dest	a Sale C. m. 1981 Proteins, Contra Litt. M.J. Communic. Toxin. Add. m. (Parlamet, 1969) (201 HLJ Communic, B	Million and and and and and a	
COLACIEN .	*************************	The second s		4 0 3 4	and the second sec
C management	REMITTER	0	DATA DATA	STREET, STREET	1
RABA PENGRIP PENETTERS SHARE	fullit Iskandor	PORIAGAN NEUANG		fra - 1	1
NOWOR KARTS EXERTING CONTENTS CARD ALABERT ALABET PENDERN	351 51 802 05880005	TUALAN TRAMBASIN TRANSACTION PLANE	Realfordawn Lan		-
ALABAT PENDING ADMITISTS ADDRESS RAMA YANG DAART DINUMURU		MERTA MEISAGE	RM _ KINGON	12012 - 2053	
CONTACT PERSON NO ASSOPHONE	68 2228 4 55534 muros			, Med jods, Jumson,	
CELLILAR PHONENCI KOTA	08	BUNNER DAMA ') DURCE OF FUND	Denuclinie		
OFF MALADAN				4 9.567.90	
ELEFONER THRE BTATUS	Entration Laterates	ICVERIMENT TABUNGA		1.0	The second second
ETATUE REMARKANEGARIAN	ALSOUNT IN ALSOUNT	CEX BCA	No.	49	100
NO READENING OF BCA'T					
ACCOUNT NUMBER WITH BCA TANKS Investig page distuices	antineti mana terre atur disebut di Ca stanut inutit	There are a	a Par 188.000.000- (adversation). Conje for researchers	As the second	4
A new for twelve links a specie	at the And will be relative to the excession				
Brow dari baris koresponden ditel			S RAUBLE - SPECIAL INSTRUCTIONS	Derror Server	7
Consuportent Jane's storpes are	for the account of Jamafriany in	mgine Roley Lolas		1 1	a Section of the
			Experience ranges or	41	1
	RENET ANOUNT IN FOREIGN COMMENCY EXHAUSE	ANE AND NO DECRETAN RUPAN	//wh hankly	11	
AMLAN 18AG DISIRINI AMOUNT TRANSPORTED	IDE	N 9-566-550		and preserves the party party party and the second	
ROUB			Oncomplianally except all the terms and the application is togetly landing after b	suralities in the reverse side and automotion any validated	104
LATS.	USK	4 2.000	2 Mergelakan Salwa PT Bank Corms	Ana Thé tetah mantherikan perpitasan mere	gent
NURGE	Albert Ani/ The		terneitul.	t sang das malakukan konfirmasi atas perje	and the second se
HELANG (RUPAR) / AMOUNT IN MOR		1 9. 769 4(D	State that BCA has explained the bar confirmation regarding the exploration	with mate, and this of have speake and has	- maile
combilion juta linno	totur eron with erom rit	will the total time suit	2	m	1. 1.25
riou p	tar the first start of the	in the second second		//	
	the second s		Taller	Menchon / Applicant	The second se

#### Copyright form (signed)

#### MILITARI RE S

REVUE EUROPEENNE D'ETUDES MILITAIRES EUROPEAN JOURNAL OF MILITARY STUDIES

#### **Publication Agreement**

RES MILITARIS is a worldwide open access journal covering a wide range of academic disciplines. As an organization, the academic enhance international we aim to academic atmosphere, show the outstanding research achievement in a broad range of a reas, and to facilitate the academic exchange of the standard standar**betweenresearchers** 

#### The LICENSEE is RES MILITARISand

### The LICENSOR Is Yusuf Iskandar<sup>1\*</sup>, Moeljadi<sup>2</sup>, Sumiati<sup>3</sup>, Djumahir<sup>4</sup>

The purpose of this agreement is to establish a mutually beneficial working relationship between The LICENSEE and the LICENSOR.

WHEREAS it is the goal of the LICENSEE to provide an open access platform and WHEREAS the LICENSOR is willing to furnish electronically readable files in accordance with the terms of this Agreement

Manuscript Title: "The Effect of Financial Performance on Commercial Bank Before, During and Post Covid-19 Pandemic on Indonesia's Economic"

It is mutually agreed as follows:

#### COPYRIGHT:

LICENSOR retains all copyright interest, oritis retained by other copyrightholder, as appropriate and agrees that the manuscriptremains permanently open access in LICENSEE's site under the terms of the Creative Commons Attribution and the set of the terms of terms oInternational License (CCBY). LICENSEE shall have the right to use and archive the content for the purpose of creating a standard standaRES MILITARIS record and may reformat or paraphrase to benefit the display of the RES MILITARIS record.

#### 2. LICENSEE RESPONSIBILITIES: LICENSEEshall: a.

 LICENSEEshall:
 Correctsignificanterrorstopublishedrecordsforcriticalfields, describedasthetitle, author, orbibliographiccitation fields.

Date

- ii. Provide free access to the full-text content of publishedarticles.
- iii. Provideavailabilitytotheperpetualarchivewithexceptionforunavailabilityduetomaintenanceoftheserver, installationortestingofsoftware,loadingofdata,ordowntimeoutsidethecontroloftheLICENSEE.
- 3. LICENSOR RESPONSIBILITIES:
  - LICENSOR shall confirmthat: a.
    - i. Copyrightedmaterialshavenotbeenusedinthemanuscriptwithout permission.
    - ii. Themanuscriptisfreefromplagiarismandhasnotbeenpublishedpreviously.
       iii. All of the facts contained in the material are true andaccurate.

    - iv. Indexing of publications shall not be a responsibility of any journal
    - v. The APC paid for the Publicationis non-refundable is any case.

Please sign to indicat LICENSOR	te acceptance of this Agreemen
	ed LICENSOR Representative
Date 07-01-2023	In Licenson in the presentative

LICENSEE - RES MILITARIS Signature of Officer