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The Effect of Credit Restructuring, Liquidity, Third-Party Funds, Net Interest Margin on Banking Profitability Before and During the Covid-19 Pandemic

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ABSTRACT: The Covid-19 pandemic has brought about many changes in the landscape of the national banking strategy. This research design uses a quantitative method with explanatory techniques. The data collection technique used purposive sampling with a total sample of 150 samples before and during the Covid-19 pandemic. Data testing and analysis used panel data regression analysis and different tests were carried out. The data analysis and testing show that credit restructuring before the covid-19 pandemic did not profitable. Meanwhile, after the covid-19 pandemic, credit restructuring harmed profitability. Liquidity variables, third-party funds, and net interest margin influenced profitability both before and during the covid-19 pandemic. The other tests show that there are significant differences in the variables of credit restructuring, third-party funds, and profitability before and during the Covid-19 pandemic. On the contrary, there are no significant differences in the liquidity and net interest margin variables either before or after the Covid-19 pandemic.

KEYWORDS: restructuring credit, liquidity, third-party funds, net interest margin, profitability, the covid-19 pandemic

I. INTRODUCTION

The Covid-19 pandemic has brought about many changes in the landscape of the national banking strategy, the impact of the pandemic in Indonesia with many social restrictions being implemented. Banking is the most affected sector by the Covid-19 pandemic. As many as 10 banks with the largest assets in Indonesia have released their financial performance for the 2019 and 2020 periods. The average profit earned by each bank has decreased both before and during the Covid-19 pandemic. Banks with various levels of significance of decline and only Bank BTN experienced a significant increase in profit during the pandemic. One of the factors that has kept Bank BTN's business growth good is the housing sector, which is Bank BTN's core business, this sector has risen quite well, especially because housing is a basic need so this sector is still able to drive the national economy amid the effects of the Covid-19 pandemic (Wati, I., & Pandekar, 2018), revealed that the most appropriate indicator for measuring a bank's performance is to use a profitability indicator. This is related to the extent to which the bank efficiently carries out its business activities. Efficiency is measured by comparing the profits earned with assets or capital that generate profits. The higher the profitability of a bank, the better the bank's performance.

The credit restructuring policy imposed by the government at the start of the pandemic emerged in Indonesia which is as a step to ease the economic burden on banks or financing customers amid the covid-19 pandemic. Siti et al (2022) states that planning or implementing credit restructuring depends on the agreement between the debtor (customer) and the creditor (Bank) in reconstructing its debt payment agreement. (Kholiq, 2020), stated that after carrying out the restructuring, there was a significant difference in the form of a decrease in profitability performance as measured by the operating profit margin.

The level of profitability of a bank can be influenced by internal and external factors. One of the internal factors that can affect bank profitability is liquidity. A bank's liquidity capacity is said to be good if the bank can properly manage and channel funds from the public and fulfill the bank's debt obligations. According to Thinh (2022), liquidity ensures that banks have sufficient quality liquid assets that can be easily and quickly converted into liquid assets to meet bank liquidity needs.

Bank sources of funds that have a major contribution in carrying out their business activities are sourced from third-party funds or funds from the public. The success of a bank in raising funds from the public is influenced by the level of public trust in a bank, the image of the bank in society, and the services provided to the public. According to Syahbana, et al (2020), stating that a bank's ability to obtain the desired source of funds greatly affects the continuity of the bank's business.

One indicator that can be used to see the functioning of the banking intermediary function is the net interest margin, better known as the Net Interest Margin (NIM). This ratio is used to evaluate a bank's ability to manage interest rate risk to increase the bank's profitability. Pratomo & Ramdani (2021) stated that the net interest margin measures the gap between the interest income that banks receive on loans and securities and the interest costs of borrowed funds. This reflects the cost of bank intermediation services and bank efficiency. The higher the net interest margin, the higher the bank's profit and the more stable it will be. As such, it is one of the key measures of bank profitability.

This paper makes several contributions. The first is to expand on the previous literature about the effects of covid-19 pandemic on banking financial performances. The second is to elaborate on previous studies in Indonesia which investigated the impact of credit structuring, liquidity, third-party funds, and net interest margin on several factor on banking profitability.

II. HYPOTHESIS DEVELOPMENT

Influence Of restructuring Credit on profitability before and During covid-19 pandemic

Credit restructuring is provided for customers who have difficulty paying their credit but remain cooperative in paying the credit. The Bank ensures that policies that support economic growth stimulus are given only to debtors affected by the spread of coronavirus disease 2019 (COVID-19) and are expected to survive the impact of Covid-19. The form of loan restructuring provided is an extension of the term and a reduction in interest rates, so this has caused bank profitability to decline even though non-performing loans (NPL) have improved. Kustina et al. (2022) states that there is a significant difference in profit before and after the OJK credit restructuring policy, which means that the OJK credit restructuring policy as an effort to anticipate COVID-19 has a significant effect on banking. This is in line with research conducted by Septriawan et al (2021), the credit restructuring variable has a significant negative effect on banking company income. Thus, the hypothesis shows that:
Ha1: Restructuring credit influential negative on profitability before and during the COVID-19 pandemic.

Influence of Liquidity on profitability before and During covid-19 pandemic

Liquidity is The level of the Bank's ability to manage productive assets and the ability to fulfill short-term obligations that will have a positive impact on increasing the Bank's profits. Because not a few companies experience difficulties in funding the company's operational activities, such as difficulties in paying its short-term debt obligations. So the Bank must ensure a good level of liquidity in supporting the Bank's business activities in obtaining profits.

During the pandemic, the Bank's liquidity level showed a fairly good trend and was still stable in supporting the Bank's operational activities. Liquidity became an indicator in assessing the soundness of the Bank in supporting business continuity, so that the better the bank's liquidity, the more directly proportional to the increase in Bank's profitability. Thinh (2022) stated that liquidity has a positive relationship with bank profitability including return on assets, and return on equity. This is in line with research conducted by Samo, A (2019), the findings of his research show that there is a positive relationship between liquidity and profitability. The hypothesis shows that:
Ha2: Liquidity influential positive on profitability before and during COVID-19 pandemic.

Influence of third-party Funds on Profitability Before and During covid-19 pandemic

Funds generated from the community in the form of savings, current accounts, and time deposits have increased and the Bank's level of ability to manage lending to the public will increase profit from interest income because funds from the community if managed properly will also increase the Bank's profitability. According to Ardheta and Sina (2020), the results of his research show that the results of the research show that capital adequacy ratio and third-party funds affect profitability. This is in line with research conducted by Rasyid, et al (2020), Third-party funds have a positive and significant effect on Profitability (ROA). This shows that the higher TPF will increase the profitability (ROA) of commercial banks. The hypothesis shows that:
Ha3: Party funds third influential positive on profitability before and during the COVID-19 pandemic.

Influence of net interest margins on profitability before and During covid-19 pandemic

Income derived from the existence of credit facilities and the level of ability of customers to repay their loans will have a positive impact on the existence of net interest income which will be directly proportional to the increase in bank profitability. Net Interest Margin (NIM) is a comparison between income net interest to average assets productive. Net Interest Margin (NIM) is a ratio used to measure the ability of an internal bank in managing productive assets in generating interest income

According to Pertiwi & Susanto (2019), in their research stated that the net interest margin has a significant influence on bank profitability. The net interest margin ratio is used to measure the ability of banking management to manage all of its productive assets to generate net interest income. The greater the net interest margin ratio, the bank's profitability will increase due to the increased interest income resulting from the reduction of interest expense and interest income. High-interest income indicates that banks channel more funds to the public without causing congestion. This is reinforced by research conducted by Net Interest Margin has a positive and insignificant effect on profitability (Isaac., F, et al, 2022). This shows that the higher the Net Interest Margin, the higher the bank's profitability. However, the insignificant effect generated by Net Interest Margin results in an increase in Net Interest Margin not increasing profitability (ROA). This is because the net interest income by the bank is lower than the bank's total assets. The hypothesis in this study is as follows:

Ha4: Net Interest Margin (NIM) has an effect positive to profitability before and during the COVID-19 pandemic.

Differences in credit restructuring, liquidity, third-party funds, net interest margins, and profitability before and during covid-19 pandemic

In a situation of uncertainty such as the Covid-19 pandemic, the government continues to strive for national economic improvement, one of the policies implemented by the government through the OJK is to issue POJK Number 11/2020 concerning credit restructuring; therefore, many customers take advantage of this credit restructuring facility and assist banks in reduce NPLs. Kustina et al. (2022) states that there are significant differences in generating profit before and after the OJK credit restructuring policy. That means that the OJK credit restructuring policy has a significant effect on banking. Meanwhile, Rimbawan (2022), shows that there is no significant difference between the Non-Performing Loan/Finance Ratio (NPL/F) before and after implementing the credit restructuring policy but there is a significant difference between ROA before and after implementing the policy credit restructuring during the COVID-19 pandemic

The impact of social restrictions due to the covid-19 pandemic, resulted in Bank operational activities having to be carried out digitally according to Ningsih & Aris (2022), stated that liquidity before the pandemic was significantly different from during the pandemic. liquidity during the pandemic and after the vaccination is significantly different, there is a significant difference between the liquidity before the pandemic and after the vaccination.

During the Covid-19 pandemic, third-party funds experienced an increase, because people preferred to save their funds in banks due to financial uncertainty during the Covid-19 pandemic. According to Yasin and Fisabilillah (2021), The results of their research show that during a pandemic the growth of third-party funds was greater than lending. This was due to the pandemic effect still occurring which put pressure on the banking industry's performance.

Earning interest income decreased during the Covid-19 pandemic, which also resulted in a decrease in the Bank's profit rate so the Bank must ensure that interest rates must be managed properly so that Bank activities as an intermediary medium can run well during the Covid-19 pandemic.(Sumbayak & Manda, 2020), proved that the NIM variable had a significant effect on the ROA of BUMN Banks for the period 2008-2018 which experienced the economic crisis in 2008 and had a considerable impact on banks in Indonesia, for example, a decrease in profitability income due to an increase in bad loans and a decrease in customer interest to save and make loans. According to (Tiana (2022), in their research, it was stated that the Net Interest Margin affects the profitability of commercial banks. This is reinforced by research conducted by Kristianingsih and Agustina (2022). The results of his research stated that the impact of Covid-19 had a positive and significant impact on the Net Interest Margin. Increasing this ratio will result in an increase in net interest income thereby increasing profits for the banking sector, thus it can be concluded that the higher the net interest margin, the higher the profitability.

Profitability is used to show how much profit or profit is derived from the Bank's financial performance. The higher the value of profitability, the better the condition of the company. However, during the Covid-19 pandemic, the Bank's ability to earn profits experienced a significant decrease, so there was a significant difference in Bank profitability before and after the Covid-19 pandemic. According to Fitriana (2022), there was a significant difference in profitability analyzed from Return On Assets, Return On Equity, and Operating Expenses and Operating Income at BUMN Banks before and during the Covid-19 pandemic in 2019 and 2020. According to (Kusumawardani, 2022), analysis of profitability ratios before and during the Covid-19 pandemic and its relationship with profit growth in detail obtained simultaneously profitability ratios have a significant effect on profit growth. Partial profitability ratios that have a significant effect on profit growth are the ratios of ROA, ROE, and BOPO. So the hypothesis shows that :

Ha5: There are differences in credit restructuring, liquidity, third-party funds, net interest margins, and profitability before and during the COVID-19 pandemic.

III. METHODOLOGY

This study uses a quantitative method research design with a causality approach. In addition, in this study, a different test will be carried out to find out the differences in each variable before and during the Covid-19 pandemic. The data in this study are quarterly reports on Banking Sector companies listed on the Indonesia Stock Exchange in the first quarter of 2019 to the first quarter of 2020 which is the pre-pandemic period and the second quarter of 2020 to the second quarter of 2019. 2021, is a period during the covid-19 pandemic.

This study uses data sourced from company financial statement data that has been published by the Indonesia Stock Exchange through a website, namely www.idx.co.id. The population in this study is all Banking Sector Companies with a total of 46 companies listed on the Indonesia Stock Exchange in 2019-2021. The sampling technique in this study is a non-probability sampling technique using purposive sampling.

Table 1. Criteria Sample

NO	Information	Number of Samples
1.	Banking companies listed on the Indonesian Stock Ehange or IDX *(Indonesian Stock Ehange*).	46
2.	Banks that do not publish complete financial reports (Quarter report).	(10)
3.	Banks that do not display credit restructuring data in financial reports	(6)
	Total Sample	30
	Period of study is 3 years, and total observation (30 x 3 years)	90

Measurement of Variables

Dependent Variable

Profitability

Profitability is a ratio that assesses a company's ability to make a profit. This ratio can also provide a measure of the effectiveness of a company's management. In this study, profitability is measured by comparing the amount of tax-side profit divided by the total assets owned by the bank so that with this measurement it will be seen the level of profit earned by the Bank is measuring the level of Bank profitability (Syahbana, et al, 2020).

Independent Variables

Credit restructuring

Credit restructuring is a form of relief provided by creditors or lenders (banks or financial institutions) to debtors to pay off their loans. In this study, credit restructuring is measured by comparing the restructured credit to the total credit extended to debtors (Septriawan et al, 2021).

Liquidity

Liquidity describes the company's ability to meet its short-term obligations. The relationship between current assets and current liabilities can be used to evaluate a company's liquidity level, Liquidity is proxied with LDR (Loan to Deposit Ratio), which is the ratio between the banks' total loans and total deposits (Jasman & Murwaningsari, 2022)

Third-Party Funds

Third-Party Funds or Deposits are funds entrusted by the public to banks based on a fund deposit agreement in the form of demand deposits, deposits, certificates of deposit, savings, and or other equivalent forms. In this study, third-party funds were measured by comparing total third-party funds, namely demand deposits, savings, and time deposits with total loans extended (Hasna et al, 2020).

Net Interest Margin

Net Interest Margin (NIM) is the ratio between the net interest income to the average earning assets. In this study, net interest margin is measured by comparing net interest income with the average earning assets owned by a bank during a certain period (Ishak et al, 2022).

IV. RESULTS AND DISCUSSION

Based on the flow of determining the sample and reviewing the predetermined criteria, then from a total of 46 banks listed on the Indonesia Stock Exchange (IDX), and 30 banks were obtained as data to be used as samples in this study. for the period before and during the Covid-19 pandemic, 5 (five) quarters of financial reports each. So that the number of samples for the period before and during the Covid-19 pandemic was 150 samples.

I. Analysis statistics Descriptive

Table 2. Statistics Descriptive Before the Covid-19 Pandemic

Variable	Minimum	Maximum	Means	Standard Deviation
Profitability	2,22	4,32	3,316	0.444
Credit Restructuring	0.01	0.89	0.083	0.096
Liquidity	0.11	1.05	0.296	0,185
Third-Party Funds	20.02	99.02	77,68	5,308
Net Interest Margins	0.89	14.97	4.64	2,209

Table 2 shows that profitability, Liquidity, Third Party Funds, and Net Interest Margins before the covered-19 pandemic have a low standard deviation as compared to the mean. This indicates that sample variability for profitability is quite low or homogeneous. Meanwhile, credit restructuring before covid-19 pandemic has a higher standard deviation than the mean. This means that the data variability of the credit restructuring variable is quite high or heterogeneous.

Credit restructuring is measured by restructured loans divided by total loans extended. Table 2 presents credit restructuring has a higher standard deviation than means. This indicates that the variability of the sample is quite high or heterogeneous. These results are consistent with the fact that before the pandemic, not all banks required credit restructuring, so the sample data had high variability.

Table 3. Statistics Descriptive During the Covid-19 Pandemic

Variable	Minimum	Maximum	Means	Standard Deviation
Profitability	0.05	11.57	1,812	1.670
Credit Restructuring	0.01	0.68	0.217	0.150
Liquidity	0.90	0.99	0.320	0.180
Third-Party Funds	20,17	154,17	83,859	19.550
Net Interest Margins	0.62	12.58	4,337	1,612

Table 3 shows that profitability, restructuring credit, liquidity, third-party funds, and net interest margins have a low standard deviation as compared to the mean. This indicates that sample variability for profitability, liquidity, third-party funds, and net interest margins during covid-19 pandemic is quite low or homogeneous.

Before conducting the hypothesis test, a classical assumption test is performed to get the best-unbiased linear estimator (BLUE). The test includes a normality test, multicollinearity test, autocorrelation test, and heteroscedasticity test. More detail is described below.

Normality Test

Table 4. Normality Test Results

Data Models	Skewness	kurtosis	probability	Obs
Before Covid-19 pandemic	0.222934	2.991793	0.537161	150
During Covid-19 pandemic	-0.374213	2.978890	0.173455	150

Table 4 shows that in normality test results before and during Covid-19 the probability value is greater than the predetermined significance level (0.537161> 0.05) and (0.173455> 0.05), thus it can be said that the regression model meets the normality assumption and the data is feasible to use in research, so it can be concluded that the data is normally distributed, and the regression model meets the normality assumption.

Multicollinearity Test

Table 5. Multicollinearity Test Results for Prior Data Covid-19 Pandemic

Variables	Credit Restructuring	Liquidity	Third-Party Funds	*Net Interest Margins*

Credit Restructuring	1.000000			
Liquidity	-0.095470	1.000000		
Third-Party Funds	-0.127086	-0.179738	1.000000	
Net Interest Margins	-0.296396	0.072009	0.127983	1.000000

Table 6. Results of Multicollinearity Test Data During Covid-19 Pandemic

Variables	**Credit Restructuring**	**Liquidity**	**Third-Party Funds**	***Net Interest Margins***
Credit Restructuring	1.000000			
Liquidity	0.051181	1.000000		
Third-Party Funds	0.081003	0.177586	1.000000	
Net Interest Margins	0.444667	0.052518	0.006459	1.000000

Table 5 and 6 show that the multicollinearity test of data before and during covid 19 show that the fourth independent variable Credit Restructuring, liquidity, third-party funds, and *net interest margin* does not correlate. Because the mark correlation between variables is below 0.9, so can be concluded No happened multicollinearity and feasible data For the regression test were carried out.

Autocorrelation Test

Table 7. Autocorrelation Test Results

Data Models	**Obs *R-Squared**	**Prob F**	**Prob. Chi-Square**
Before Covid-19 pandemic	46.30719	Oh, 2587	0.2713
During Covid-19 pandemic	75.65879	0.1464	0.1264

Table 7 shows that the autocorrelation test of data before and during covid 19 shows that mark Prob. Chi-square is bigger from level significance (0.2713>0.05) and (0.1264>0.05, then with results can conclude that in the study This No happen autocorrelation so the regression model worth used.

Heteroscedasticity Test

Table 8. Table of Heteroscedasticity Test

Data Models	**Obs *R-Squared**	**Prob F**	**Prob. Chi-Square**
Before Covid-19 pandemic	43.67819	Oh, 1745	0.1964
During Covid-19 pandemic	76.01672	0.1088	0.1342

Table 8 shows that the heteroscedasticity test of the data before and during Covid 19 shows that the prob value More Chi-Square is big from level significance (0.1964>0.05) and (0.1342>0.05). it _ show that No happen heteroscedasticity in the regression model in a study, so the regression model the worthy using To predict Profitability based on input variable Credit Restructuring, liquidity, third-party funds, and *net interest margin.*

Then, the panel data selection model test was taken. The test includes Chow, Hausman test, and Lagrange multiplier. The model selection testing concludes the common effect model is better for regression equations both before and during the pandemic covid 19.

The following table 9 an table 10 present the hypothesis test result before and after covid-19 pandemic

Table 9 Results *(T-Test)* Before Covid-19 Pandemic

Variables	**Coefficient**	**Prob**
C	1.6914	0.0006
Credit Restructuring	-0.1704	0.0933
Liquidity	5.3923	0.0000
Third Party FFunds	0.0001	0.0022

Net Interest Margins	1.0248	0.0000
Prob (F Statistic)	197,96	0.0000
Adj R-Square	0.8409	

Table 10 Results (T-Test) During Covid-19 Pandemic

Variables	**Coefficient**	**Prob**
C	0.0001	0.0002
Credit Restructuring	-0.2662	0.0401
Liquidity	0.4186	0.0424
Third Party FFunds	0.0001	0.0022
Net Interest Margins	1.7977	0.0485
Prob (F Statistic)	48.97	0.0000
Adj R-Square	0.5629	

Credit Restructuring Before and During the Covid-19 Pandemic

Table 9 show the siginificant value of 0.09 (abpve 0.05) with the coefficient value of -0.17. It can be concluded that credit restructuring did not affect the Profitability of Banking Sector Companies before the Covid-19 pandemic. Credit restructuring did not affect profitability before the Covid-19 pandemic. There was no influence on this credit restructuring because before the Covid-19 pandemic, the Bank was not very significant in carrying out credit restructuring, credit restructuring was intended for customers who had difficulty paying their credit, due to a disaster or natural disasters such as earthquakes, volcanic eruptions, tsunamis, and liquefaction. but in this case, the customer is still cooperative in paying the credit. This policy refers to POJK Number 45/POJK.03/2017 concerning Special Treatment of Bank Credit or Financing for Certain Areas in Indonesia Affected by Natural Disasters, so that when credit restructuring is not too significant for non-performing loans, it does not affect Bank profitability

Meanwhile, table 10 shows for during the Covid-19 pandemic, the significance level of less than 0.05 (0.0401 <0.05), and a negative coefficient of -0.266201, this shows that Ha is accepted, so it can be concluded that credit restructuring hurts the Profitability of Banking Sector Companies. Credit restructuring hurt Bank Profitability after the covid-19 pandemic. With the enactment of POJK No. 11/Pojk.03/2020 Concerning National Economic Stimulus as a Countercyclical Policy on the Impact of the Spread of Corona Virus Disease, this effort was made to save non-performing loans (NPL) during the Covid-19 pandemic, and it was proven by the credit restructuring that NPLs decreased but had a negative influence on the profitability of the Bank. This is because in this policy there is a form of delay or extension of the credit term facility so that banks that should get profits and profits when paying credit will experience delays in principal and interest income from these loans, so that more and more credit is restructured will cause the level of decreased profitability. These results are in line with research conducted by Septriawan, et al (2021), which says that the credit restructuring variable has a significant negative effect on banking company income.

Liquidity before and during the Covid-19 Pandemic

The test results using the t-test obtained the significance level of less than 0.05 (0.0000 < 0.05). This shows that H0 is rejected and Ha is accepted. Meanwhile, during the Covid-19 pandemic, the count value for the Liquidity variable with a significance level of less than 0.05 (0.0424 < 0.05). This shows that Ha is accepted, so it can be concluded that liquidity has a positive and significant effect on the Profitability of Banking Sector Companies both before and after the Covid-19 pandemic. The effect of this liquidity shows that if the value of liquidity increases, the value of profitability will also increase. Liquidity variables both before and after the covid-19 pandemic had a positive effect on bank profitability. The effect of this liquidity indicates that if the value of liquidity increases, the value of profitability will also increase. The influence of liquidity on profitability indicates that funds originating from short-term debt to fund bank operational activities can generate profits that affect the increase in bank profitability.

According to Gumanti (2016), in the world of banking, the ability of banks to fulfill their short-term loans is a good signal, because banks that can pay their short-term loans on time are banks that have a good level of liquidity. The number of creditors owned by the bank must be proportional to the number of debtors so that the circulation of funds can run quickly and smoothly. These results are relevant to research conducted by Samo, (2019), which shows that Liquidity has a significant positive effect on Profitability. These results are also in line with research conducted by Thinh et al (2022), which revealed that liquidity has a positive and significant effect on profitability.

Third-Party Funds Before and During the Covid-19 Pandemic

The test results using the t-test obtained the significance level of less than 0.05 (0.0022 <0.05). This shows that Ha is accepted. Meanwhile, during the Covid pandemic, the significance level of less than 0.05 (0.0485 <0.05). This shows that Ha is accepted, so it can be concluded that third-party funds have a positive effect on the Profitability of Banking Sector Companies both before and after the Covid-19 pandemic. The effect of third-party funds shows that if the Profitability value increases, it will also be followed by an increased value of third-party funds.

Third-party fund variables both before and after the covid-19 pandemic had a positive effect on bank profitability. The influence of third-party funds indicates that the large number of funds that the bank has managed to collect from the public will be able to contribute to the Bank's operations which are utilized optimally in providing credit to the community so that it will also have an impact on increasing the Bank's profitability. These results are consistent with research conducted by Syahbana et al (2020), which says that third-party funds have a positive effect on bank profitability. And strengthened by research conducted by Hasna et al (2020), which states that third-party funds have a positive effect on bank profitability.

Net Interest Margin Before and During the Covid-19 Pandemic

The test results using the t-test obtained the significance level of less than 0.05 (0.000 <0.05). This shows that Ha is accepted, so it can be concluded that the net interest margin has a significant positive effect on the Profitability of Banking Sector Companies both before and after the covid-19 pandemic. The effect of this net interest margin shows that if the Profitability value increases, it will also be followed by an increase in the value of the net interest margin.

The variable net interest margin both before and during the covid-19 pandemic had a significant positive effect on bank profitability. The effect of this net interest margin shows that if the value of the net interest margin increases, it will also be followed by an increase in the Profitability value. Net interest margin is strongly influenced by changes in interest rates and the quality of earning assets. Banks need to be careful in extending credit so that the quality of their productive assets is maintained. With good credit quality, it can increase net interest income ultimately affecting bank profits. High net interest income will result in increased profitability. Each increase in net interest margin will increase ROA, because each increase in net interest income, which is the difference between total interest costs and total interest income, results in an increase in profit before tax. These results are by research conducted by Roosdiana (2022), which said that there was an effect of Net Interest Margin on profitability before and after the Covid-19 pandemic and was reinforced by the research of Pertiwi & Susanto (2019) and Ishak, et al. (2022) which says that the net interest margin has a positive effect on bank profitability.

Coefficient Determination

The value of the Adjusted R2 (R Square) data before Covid 19 was 0.84 or (84%). This shows that the variance of the Profitability variable can be explained by credit restructuring, liquidity, third-party funds, and a net interest margin of 84%. While the remaining 26% (100% - 84%) is explained by other variable factors that are not included in this research model. While the value of the Adjusted R2 (R Square) data during the Covid-19 pandemic was 0.56 or (56%). This shows that the variance of the Profitability variable can be explained by credit restructuring, liquidity, third-party funds, and a net interest margin of 56%. While the remaining 44% (100% - 54%) is explained by other variable factors that are not included in this research model. The greater the value of the Adjusted R Square, the better, because the dependent variable can be predicted by the independent variables.

Comparison Test

Table 11. Normality Test Results

Data	**Skewness**	**kurtosis**	**probability**	**Obs**
Credit Restructuring	0.555984	2.327980	0.000026	300
Liquidity	0.228647	2.629269	0.114635	300
Third-Party Funds	0.105880	2.787667	0.570040	300
Net Interest Margins	-0.262394	3.304294	0.100258	300
Profitability	0.125543	2.593661	0.240275	300

Source: Data processing, 2023

The probability value is 0.000026 which is smaller than the predetermined significance level of 0.05 (0.000026 <0.05), thus it can be concluded that the data for the credit restructuring variable is not normally distributed, so the different test is carried out using the Wilcoxon Signed Rank Test statistical test.

Table 12. Results of Wilcoxon Signed Rank T Test Credit Restructuring

	Value	probability
Mann-Whitney	8.770062	0.0000
Mann-Whitney (tie-adj.)	8.778964	0.0000

Source: Data processing, 2023

Table 12 shows that of the different tests using the Wilcoxon Signed Rank Test, the Wilcoxon probability value is 0.0000 and is smaller than the significance level of 0.05 (0.0000 <0.05), so it can be concluded that there is a significant difference in the credit restructuring variable before and during the covid-19 pandemic.

There is a difference in the significance of the credit restructuring variable before and during the Covid-19 pandemic. The reason for the difference in profit earned is that the credit restructuring policy provides leeway for customers who use financial services to receive delays in payment of credit principal, postponement of interest arrears, an extension of credit grace periods, and addition of credit facilities other. This causes the banking sector not to obtain operational income, namely interest income on loans disbursed. Meanwhile, income from the difference between deposits with annual interest and fixed savings is paid by the bank (cost of funds) or costs that must be paid by the bank for the use of money originating from other parties, namely customers and or other banks. This causes a decrease in profit from operating income

These results are relevant to research conducted by Kustina et al (2022), stating that there were significant differences before and after the credit restructuring policy, which means that the OJK credit restructuring policy as an effort to anticipate COVID-19 had a significant effect on banking. It is also reinforced by research conducted by Rimbawan (2022), which states that there are significant differences between ROA before and after the implementation of the credit restructuring policy during the COVID-19 pandemic.

Table 13. Results of Paired Sample T-test

Variable	Value	t-test Probability
Liquidity	-0.620082	0.5357
Third-Party Funds	2.004018	0.0460
Net Interest Margins	0.978609	0.3286
Profitability	2.005617	0.0479

Source: Data processing, 2023

Comparison Test for Liquidity

Table 13 shows the comparison tests using the Paired Sample T-test statistic for variabel of Liquidity. The probability value obtained, the T-test is 0.5357 and is greater than the significance level of 0.05 (0.5357 <0.05), so it can be concluded that there is no there are differences in the significance of the liquidity variable before and during the covid-19 pandemic. There is no difference in the significance of the liquidity variable before and during the covid-19 pandemic. Liquidity assessment at banks is a way of monitoring the health condition of the bank. Liquidity is the ability of a bank to meet its short-term needs. To measure liquidity in this research, namely by comparing total current assets divided by current debt, Based on the OJK report, stated that the Bank's liquidity conditions during the pandemic were still quite adequate so there was no significant difference between liquidity before and after the Covid-19 pandemic. These results are by research conducted by Hartati et al (2022), which states that the liquidity ratio measured using (the current ratio and quick ratio) has no difference in financial performance before and after the covid-19 pandemic. These results are reinforced by research conducted by Seto (2021) which stated that there was no significant difference in banking liquidity in Indonesia before and during the Covid-19 pandemic.

Camparison Test for Third Party Fund

Table 13 shows that of the different tests using the Paired Sample T-test statistic, the probability value obtained, the T-test is 0.0460 and is smaller than the significance level of 0.05 (0.0460 <0.05), so it can be concluded that there are differences in third party fund variables before and during the covid-19 pandemic. There were differences in the variables of third-party funds before and during the covid-19 pandemic. In terms of funding, during the Covid-19 pandemic, the Bank generated significant growth in third-party funds, as contained in the Financial Services Authority (OJK) report which recorded bank third-party funds worth IDR 7,480 trillion in December 2021. This value has increased by 12.21% compared to the realization in the previous year in December 2020, which was IDR 6,665 trillion. customer deposits in banking grew quite high amid the pandemic. Weakening public purchasing power has not hampered the growth of third-party funds (DPK). This was because, during the pandemic, people kept more of their funds in banks due to capital market uncertainty during the Covid-19 pandemic. These results are consistent with research conducted by Pransiska et al (2022), which stated that there were significant differences in third-party funds before and during the Covid-19 pandemic.

Comparison Test for Net Interest Margin

Table 13 shows that of the different tests using the Wilcoxon Signed Rank Test, the Wilcoxon probability value of 0.3286 is greater than the significance level of 0.05 (0.3286 <0.05), so it can be concluded that there is no significant difference in the net interest margin variable. before and during the covid-19 pandemic. There is no difference in the significance of the net interest margin variable before and during the Covid-19 pandemic. This is because each bank must maintain a net interest margin at a certain level to maintain its performance. Competitive loan interest rates (lower than competing banks) will be the main factor to attract debtors, which in turn will put pressure on banks to reduce net interest margins. The decrease in net interest margin must be followed by an increase in operational efficiency as compensation so that the bank's net profit is maintained properly. So that with this balance there is no significant difference between the net interest margin before and during the Covid-19 pandemic. This result is in line with research conducted by Warsono (2022), which said that there was no significant difference in net interest margin before and after the Covid-19 pandemic.

Comparison Test for Profitability

Table 13 shows that of the different tests using the Paired Sample T-test Statistics, the probability value, of the t-test is 0.0479 which is smaller than the significance level of 0.05 (0.0479> 0.05), so that it can be concluded that there were differences in the significance of the profitability variable before and during the covid-19 pandemic. There were differences in the significance of the profitability variable before and during the covid-19 pandemic. As a result of the covid-19 pandemic, bank profitability experienced a significant decline due to credit slowdown which caused debtors to experience cash flow problems after the pandemic occurred, and finally bad credit occurred and failed to be restructured. So that there are differences in bank profitability before and during the Covid-19 pandemic.

Profitability analysis is used to increase the company's capacity to generate profits. Investor confidence in buying company shares will increase in direct proportion to the company's ability to generate profits, Ummah and Yuliana (2023).

These results are in line with the research of Fitriana, et al (2021), there are significant differences in profitability analyzed from Return On Assets (ROA) before and during the Covid-19 pandemic. This was also reinforced by research by Amrina, et al (2021) which stated that there were differences in the profitability ratios of banks in Indonesia before and during the Covid-19 pandemic using the Return On Assets (ROA) indicator.

V. CONCLUSION

The purpose of this study is to analyze the effect of credit restructuring, liquidity, third-party funds, and net interest margins on profitability and to test the differences in each variable before and during the covid-19 pandemic, while the results of this study show that credit restructuring before the covid pandemic -19 did not affect profitability, whereas after the Covid-19 pandemic credit restructuring harmed banking profitability and based on different tests there was a significant difference in bank credit restructuring before and during the Covid-19 pandemic.

Liquidity has had a positive effect on the level of banking profitability both before and during the Covid-19 pandemic and there was no significant difference in banking liquidity before and during the Covid-19 pandemic. Third-party funds had a positive effect on the level of banking profitability both before and during the Covid-19 pandemic, and there were differences in the significance of banking third-party funds before and during the Covid-19 pandemic. The Net Interest Margin had a positive effect on the level of banking profitability both before and during the Covid-19 pandemic, and there was no significant difference in the banking net interest margin before and during the Covid-19 pandemic. Based on the results of the different tests, it showed that there were significant differences in profitability before and during the Covid-19 pandemic

Companies must pay more attention on the company's ability to generate profits by making policies that are right on target during unforeseen events such as Covid-19, by making this credit restructuring policy the best effort made by

Banking Institutions. However, what must be considered is the extent to which credit restructuring activities are running effectively. Bank institutions must pay attention on this credit restructuring policy not being carried out significantly because it will affect the level of the Bank's ability to fulfill Bank operational activities, due to delays in credit payments from Customers, besides that in unpredictable conditions such as the presence of covid 19, Banks must maintain stability liquidity, third party funds and net interest margin so that business continuity can run as it should. Future researchers should broaden the scope of research objectives and add other variables not examined in this research, such as Productive Asset Quality Variables, Gross Profit Margin, Leverage, Total Assets Turn Over, and so on.

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