Original Research Article

Mergers and Acquisitions: Their Impact on the Financial Performance on the Indonesian Banking Sector

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ABSTRACT

Aims: To comparing and analyzing banking that have completed mergers and acquisitions in Indonesia from 2005 to 2020.
Study design: This research using the quantitative descriptive method.
Place and Duration of Study: Financial Services Authority, period 2005 to 2020.
Methodology: This research using quantitative data with secondary data sources whose data is obtained from financial reports that are accessed through the website www.ojk.go.id and www.idx.co.id. Data analysis used different tests using IBM SPSS, including Descriptive Statistics Test, Kolmogorov Smirnov One Sample Test, Wilcoxon Signed-Ranks Test, Paired Sample T-Test, and Multivariate Analysis of Variance (Manova).
Results: The results in this study with Manova there are differences in financial performance before and after M&A. While the of the test with Wilcoxon Signed Ranks-Test and Paired Sample T-Test did not show significant differences in the ratios of CAR, DER, ROA, ROE, BOPO, FDR/LDR, and NPF/NPL before and after M&A.
Conclusion: There is significant differences in financial performance that were tested simultaneously between before and after M&A. Although, there are no differences in the ratio of CAR, DER, ROA, ROE, BOPO, FDR/LDR, and NPF/NPL between before and after M&A.

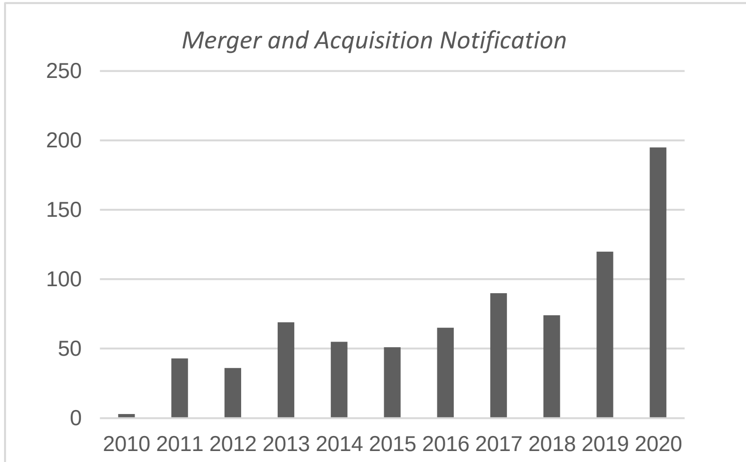
Keywords: CAR, DER, ROA, ROE, BOPO, FDR/LDR, NPF/NPL, Merger, Acquisition, Financial Performance.

1. INTRODUCTION

Business development is currently growing rapidly, moreover, Indonesia must be ready to face the free market Asia Pacific Economic Cooperation (APEC), which is a collaboration between countries in the Asia Pacific region, amounting to 21 countries. This is what makes businesses in Indonesia more and more competitors both from within the country or from abroad, because there are many competitors, companies must strengthen and make strategies to survive in this business competition [1].

In maintaining business, companies must choose the right strategy to maintain their existence and improve their financial performance, one of which is by conducting mergers and acquisitions (M&A). The business merger is an effort to restructure the company to create synergy. The synergy in question is by conducting a business merger so that the company can create more value from the business combination [2].

Figure 1. Notification of Mergers, Consolidations, and Acquisitions in Indonesia for the 2010-2020 Period



Sumber: www.kppu.go.id (processed data)

Figure 1.1 shows that there has been an increase in notification of business mergers, consolidations and takeovers in Indonesia from 2010 to 2020. This indicates that M&A actions are becoming an increasingly preferred strategy to improve the existence and performance of companies.

Mergers and acquisitions are currently a strategic issue in Indonesia, especially in the banking sector. This is evidenced by 23 corporate actions in the form of mergers and acquisitions and in 2019 there were 6 M&A actions and until August 2020 merger and acquisition activities in Indonesia had reached 89.92 trillion Rupiah. This figure has increased by 30% compared to 2019 [3].

The banking M&A action is expected to have a synergistic effect, so that it can improve banking financial performance. However, the main problems that are often faced when conducting M&A, include: 1) the M&A action will not necessarily improve the company's financial performance. 2) The M&A action will not necessarily have a positive impact on financial performance. From a financial perspective, asset restructuring through M&A actions can increase the competitiveness of the company, the occurrence of corporate control so that it will provide benefits for shareholders, the community, and the company [4].

M&A action is a strategic investment decision that will involve many transactions and considerable risks. In addition, in the M&A process there will be a lot of uncertainty due to the information asymmetry between the takeover and the acquired companies and the company's operations after the M&A process in terms of achieving synergy and integration. M&A actions can be a growth strategy for the takeover company but can also result in a decrease in financial performance for the takeover company if the synergy and integration are not carried out properly [5].

Changes after the M&A action can be seen from the financial performance of the bank. If the bank's financial performance after the M&A action is better, then the M&A action decision is the right one. However, if the company's financial performance is increasingly showing a decline, the M&A decisions taken by the company are not appropriate [2]. Financial performance is used as a basis for assessing the state of a company by analyzing the financial ratios contained in the financial statements. These ratios include: solvency ratio, liquidity ratio, and profitability ratio [6].

Previous research conducted by Usmany [7] and Fuji [8] showed a significant difference in financial performance between before and after M&A. Meanwhile, research conducted by. Sedangkan penelitian yang dilakukan oleh Al'an'am [2] and Dewi [9] found did not show significant differences in financial performance between before and after M&A. From the findings of these studies, it shows that there are differences in the results of the announcements of mergers and acquisitions which are analyzed through the company's financial performance so that this topic is interesting to be re-examined, namely the comparison of financial performance (by analyzing financial ratios) before and after mergers and acquisitions (M&A).

2. LITERATURE REVIEW, HYPOTHESIS DEVELOPMENT AND RESEARCH METHODS

2.1 Literature Review

2.1.1 Fundamental theory

Fundamental theory is a theory that analyzes financial statements by analyzing financial ratios contained in financial statements. fundamental theory compares the financial performance of a company with other similar companies through analysis of the company's financial statements so that the state of the company's financial performance can be known [10].

2.1.2 Merger

Merger is the process of joining two or more companies in which one of the companies conducting the merger remains standing using the name of the company and there are companies that merge both in name and assets and enter into a company that is established under its own name. Merger is an effort or strategy that a company can do to maintain its company's existence [11].

2.1.3 Acquisition

Acquisition is the takeover of company shares carried out by a legal entity or company so that there is a transfer of control over the company being acquired. In the acquisition, there is only a change of control where the company or legal entity that makes the acquisition has control over the company being acquired and there is no abolition of the legal status of the company being acquired [12].

2.1.4 Financial Performance

Financial performance is a description of the company's condition in utilizing its resources to generate profits in order to maintain the company's existence. By analyzing the company's financial statements through the ratios contained in the financial statements, it can be seen the financial performance of a company. Analyzing the company's financial performance will help investors and stakeholders to make decisions [13].

2.1.5 Financial Ratio

Financial ratios are the results of calculations of items that have a significant relationship contained in the financial statements in order to see the development or financial performance of a company [14]. Financial ratio analysis in this study uses solvency ratios, profitability or profitability, liquidity ratios, and product quality ratios to assess the development and efficiency of the company in carrying out its operations to generate profits [13].

2.2 Hypothesis Development

2.2.1 Differences in Capital Adequacy Ratio (CAR) Between Pre- and Post-Mergers and Acquisitions

CAR or sometimes called the capital adequacy ratio measures the level of capital adequacy of a bank. A high CAR indicates that the bank has sufficient ability to finance its operations and indicates that bmbank has the capital to cover future risks [15]. Research previous conducted by Usmany and Badjra [7] found a significant difference in levels before and after the merger of Bank OCBC NISP.
H1: CAR is significantly different between pre- and post-mergers and acquisitions.

2.2.2 Differences in Debt Equity Ratio (DER) Between Pre- and Post-Mergers and Acquisitions

The debt-to-equity ratio compares the level of debt to equity to assess the level debt term and long company. For creditors, the higher the DER ratio, the more likely the company will go bankrupt. The lower the DER level in the company, the higher the financing coming from the owner and the higher the level of security in the event of a loss or depreciation of assets in the company [13]. The results research on Nasir and Morina [16] companies M&A listed on the IDX, found a significant difference in DER before and after M&A.
H2: DER is significantly different between pre- and post-mergers and acquisitions.

2.2.3 Differences in Return on Assets (ROA) Between Pre- and Post-Mergers and Acquisitions

ROA is a ratio used to assess the financial performance of a bank in terms of generating profits. The higher the level ROA, the better 's ability company to generate revenue and the higher the level of ROA, the better the use of company assets to generate profits [15]. Research conducted by Astuti and Drajat [15] at PT Bank Woori Saudara Indonesia in 1906 showed that there was a significant difference in the ROA ratio before and after M&A.
H3: ROA is significantly different between pre- and post-mergers and acquisitions.

2.2.4 Differences in Return on Equity (ROE) Between Pre- and Post-Mergers and Acquisitions

ROE is a ratio that measures the ratio of net income before tax to shareholder equity. The higher the ROE ratio, the better the bank's financial performance in generating profit after tax. That is, bank management can effectively manage their own capital to maximize profits shareholder research. Research previous conducted by Astuti and Drajat [15] at PT Bank Woori Indonesia 1906 Tbk found that the ROE before the merger and ROE after the merger were significantly different.
H4: ROE is significantly different between pre- and post-mergers and acquisitions.

2.2.5 Differences in Operating Expenses to Operating Income (BOPO) Between Pre- and Post-Mergers and Acquisitions

BOPO compares the bank's operating costs with income. The BOPO ratio shows the level of performance and efficiency of a bank in its operations [7]. The smaller BOPO, the better the bank's performance. This means that bank management can use resources efficiently [15]. Previous research by Astuti and Drajat [15] found a significant difference in BOPO pre- and post-merger and acquistitions at PT Bank Woori Saudara.
H5: BOPO is significantly different between pre- and post-mergers and acquisitions.

2.2.6 Differences in Financing to Deposit Ratio (FDR) or Loan to Deposit Ratio (LDR) Between Pre- and Post-Mergers and Acquisitions

The FDR/LDR ratio is used to determine the bank's ability to pay its obligations to customers who have invested their funds in the form of loans or credit to debtors. The higher the FDR/LDR level, the better the bank's financial performance. This means that bank management can manage financing effectively to repay bank obligations to customers who have invested their funds [15]. A study by Usmany and Badjra [7] found a significant difference in the LDR ratio between pre- and post-merger and acquistitions.
H6: FDR/LDR is significantly different between pre- and post-mergers and acquisitions.

2.2.7 Differences in Non Performing Financing (NPF) or Non Performing Loans (NPL) Between Pre- and Post-Mergers and Acquisitions

NPF/NPL is a ratio to calculate the percentage level of non-performing loans/financing in the bank. Bad financing in a bank can create unfavorable conditions for the bank. Thus, the lower the NPF/NPL level, the better the bank's financial performance, and the higher the NPF/NPL level, the a low NPL/NPF indicates that the bank's management is able to minimize performing financing at the bank [15]. Previous research conducted by Usmany and Badjra [7] found a significant difference in NPL pre- and post-merger and acquistitions at Bank OCBC NISP.
H7: NPF/NPL is significantly different between pre- and post-mergers and acquisitions.

2.2.8 Differences in Financial Statement Between Pre- and Post-Mergers and Acquisitions

Financial performance is a measure of how well a company can use its assets to generate profits for the company. Financial reports can provide information to stakeholders through further analysis through financial ratios before being used as a decision- making tool. The company's financial statements consist of the statement of income, statement of financial position, statement of changes in equity, and statement of cash flows [13]. Early research by Novaliza and Jajanti [17] revealed significant differences in financial performance pre- and post-merger and acquistitions.
H8: Financial statement is significantly different between pre- and post-mergers and acquisitions.

2.3 Research Method

2.3.1 Research Design

This study analyzes the financial performance before and after the M&A using ratios financial contained in the company's financial statements. Then it will be analyzed to find out differences in financial performance before funds after M&A.

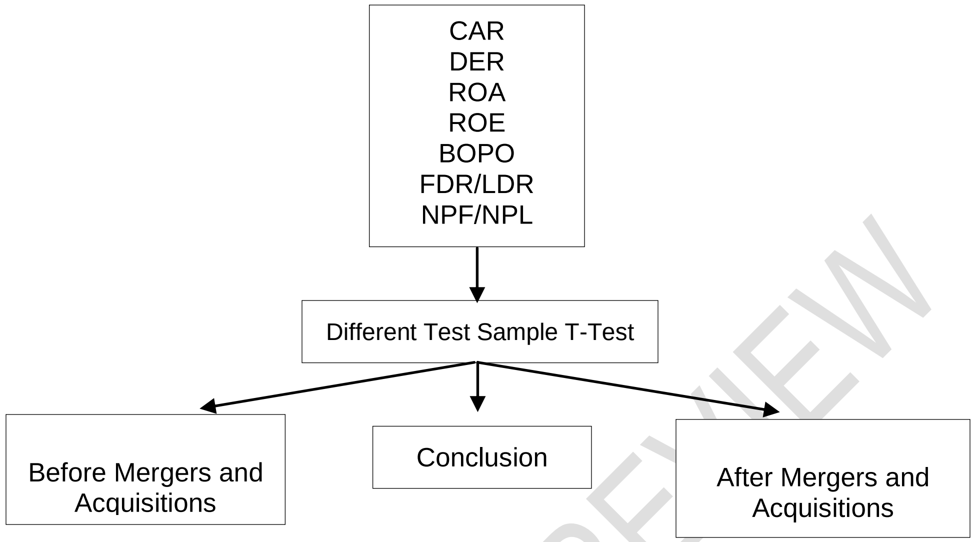


Fig. 2 Theoritical Framework

2.3.2 Population and Research Sample

This study takes banking companies as the population and banking companies that perform M&A as samples. Sampling was done by purposive sampling with the criteria of banks performing mergers or acquisitions, reporting financial statements four years pre- and post-merger and acquistitions.

2.3.3. Data collection technique

This research using quantitative data with secondary data sources in the form of financial reports obtained through the official website of each company or through the official website of the Financial Services Authority and the official website of the Indonesia Stock Exchange.

2.3.4 Analysis Method

The type of methode used is descriptive quantitaive research and data processing through statistical methods collected from secondary data. The data presentation analysis method in this study is comparative analysis, namely by comparing the financial performance of the four years before and four years after the M&A.

The hypothesis of this study was tested using the Paired Sample T-Test if the data is normally distributed, and Wilcoxon Signed Rank-Test when if the data is not normally distributed. Then the Multivariate Analysis of Variance (Manova) test was conducted to assess the differences in the company's financial performance simultaneously before and after M&A.

3. RESULTS AND DISCUSSION

3.1 Results

3.1.1 Statistical Analysis of Banks Before and After Mergers and Acquisitions

a. Descriptive Statistical Analysis

Table 1. Descriptive Statistical Results of CAR, DER, ROA, ROE, BOPO, FDR/LDR, and NPF/NPL Ratios Overall 4 Years Pre- and Post-Mergers and Acquisitions

Ratio	Period	N	Minimum	Maksimum	*Mean*	Std. Deviation
CAR	Before	48	9,92	65,78	22,2540	12,48439
	After	48	11,68	45,45	18,2429	6,18130
DER	Before	48	0,97	20,52	7,9623	4,23731
	After	48	1,24	20,07	7,5612	4,51735
ROA	Before	48	-1,66	5,14	1,6019	1,28854
	After	48	-2,52	3,65	1,2558	1,12854
ROE	Before	48	-1,67	39,83	10,1565	8,37698
	After	48	-8,24	21,70	7,9235	6,99526
BOPO	Before	48	56,04	244,06	105,3271	44,17403
	After	48	70,39	215,58	94,3148	29,12979
FDR/LDR	Before	48	9,49	183,49	92,3640	38,31667
	After	48	46,76	184,37	94,8960	29,04438
NPF/NPL	Before	48	0,06	165,84	6,8700	23,78544
	After	48	0,10	84,04	5,9540	17,22103

Table 1. shows the highest CAR before and after M&A was obtained by Bank Artha Graha Internasional Tbk and Bank BRI Syariah Tbk, namely 65,78% and 45,45%, respectively. Meanwhile, the lowest CAR values before and after mergers and acquisitions were achieved by Bank QNB Kesawan and Bank Interim Indonesia Tbk. Meanwhile, the average CAR of the companies studied between before and after M&A decreased from 22,2540 to 18,2429.

The highest DERs before and after M&A were achieved by Commonwealth Bank and HSBC Indonesia, which were 20,52% and 20,07%, respectively. Meanwhile, the lowest DER values before and after M&A were achieved by Bank Woori Saudara and Bank BRI Syariah Tbk, namely 0,97% and 1,24%, respectively. Meanwhile, the average DER of the companies studied between before and after mergers and acquisitions decreased from 7,9623 to 7,5612.

The highest ROA before and after M&A was achieved by Bank Woori Saudara and Bank HSBC Indonesia, namely 5,14% and 3,65%, respectively. Meanwhile, the lowest ROA values before and after M&A were achieved by Bank BRI Syariah Tbk, namely -1,66% and -2,52%, respectively. Meanwhile, the average ROA of the companies studied between before and after mergers and acquisitions decreased from 1,6019 to 1,2558.

The highest ROE before and after M&A was achieved by Bank HSBC Indonesia and Bank Artha Graha Internasional Tbk, namely 39,83% and 21,70%, respectively. Meanwhile, the lowest ROE values before and after M&A were achieved by Bank BRI Agroniaga and Bank BRI Syariah, namely -1.67% and -8.24%, respectively. Meanwhile, the average ROE of the companies studied between before and after M&A decreased from 10,1565 to 7,9235.

The highest BOPO values before and after M&A were achieved by Bank Artha Graha Internasional Tbk and Bank BRI Syariah, which were 244,06% and 215,58%, respectively. Meanwhile, the lowest BOPO values before and after M&A were achieved by Bank Woori Saudara, namely 56,04% and 70,39%, respectively. Meanwhile, the average BOPO in the companies studied between before and after mergers and acquisitions decreased from 105,3271 to 94,3148.

The highest FDR/LDR values before and after M&A were achieved by Bank Artha Graha Internasional Tbk and Bank BRI Syariah, which were 183,49% and 184,37%, respectively. Meanwhile, the lowest FDR/LDR values before and after M&A were achieved by Coomonwealth Bank at 9,49% and 46,76%, respectively. Meanwhile, the average FDR/LDR in the companies studied between before and after mergers and acquisitions increased from 92,3640 to 94,8960.

The highest NPF/NPL before and after M&A was achieved by Bank Artha Graha Internasional Tbk, namely 165,84% and 84,04%, respectively. Meanwhile, the lowest NPF/NPL values before and after M&A were achieved by Bank BRI Syariah and Bank QNB Kesawan, namely 0,06% and 0,10%, respectively. Meanwhile, the average NPF/NPL in the companies studied between before and after M&A decreased from 6,8700 to 5,9540.

b. Normality Test

Table 2. Financial Performance Normality Test Results 1 Year Pre- and Post-Mergers and Acquisitions

Ratio	**Period**	***One Sample Kolmogorov Smirnov-Test***	
		Sig.	***Conclusion***
CAR	Before	0,000	Abnormal
	After	0,003	Abnormal
DER	Before	0,078	Normal
	After	0,067	Normal
ROA	Before	0,200	Normal
	After	0,200	Normal
ROE	Before	0,200	Normal
	After	0,200	Normal
BOPO	Before	0,000	Abnormal
	After	0,001	Abnormal
FDR/LDR	Before	0,136	Normal
	After	0,011	Abnormal
NPF/NPL	Before	0,015	Abnormal
	After	0,011	Abnormal

Table 3. Financial Performance Normality Test Results 2 Years Pre- and Post-Mergers and Acquisitions

Ratio	**Period**	***One Sample Kolmogorov Smirnov-Test***	
		Sig.	***Conclusion***
CAR	Before	0,014	Abnormal
	After	0,077	Abnormal
DER	Before	0,200	Normal
	After	0,035	Abnormal
ROA	Before	0,200	Normal
	After	0,200	Normal
ROE	Before	0,200	Normal
	After	0,147	Normal
BOPO	Before	0,000	Abnormal

	After	0,000	Abnormal
FDR/LDR	Before	0,200	Normal
	After	0,200	Normal
NPF/NPL	Before	0,010	Abnormal
	After	0,000	Abnormal

Table 4. Financial Performance Normality Test Results 3 Years Pre- and Post-Mergers and Acquisitions

Ratio	Period	***One Sample Kolmogorov Smirnov-Test***	
		Sig.	**Conclusion**
CAR	Before	0,004	Abnormal
	After	0,029	Abnormal
DER	Before	0,076	Normal
	After	0,075	Normal
ROA	Before	0,200	Normal
	After	0,200	Normal
ROE	Before	0,200	Normal
	After	0,200	Normal
BOPO	Before	0,000	Abnormal
	After	0,200	Normal
FDR/LDR	Before	0,200	Normal
	After	0,003	Abnormal
NPF/NPL	Before	0,005	Abnormal
	After	0,000	Abnormal

Table 5. Financial Performance Normality Test Results 4 Years Pre- and Post-Mergers and Acquisitions

Ratio	Period	***One Sample Kolmogorov Smirnov-Test***	
		Sig.	**Conclusion**
CAR	Before	0,130	Normal
	After	0,002	Abnormal
DER	Before	0,200	Normal
	After	0,200	Normal
ROA	Before	0,200	Normal
	After	0,179	Normal
ROE	Before	0,200	Normal
	After	0,108	Normal
BOPO	Before	0,000	Abnormal
	After	0,200	Normal
FDR/LDR	Before	0,200	Normal
	After	0,200	Normal
NPF/NPL	Before	0,000	Abnormal
	After	0,000	Abnormal

This data normality test is carried out as a prerequisite before hypothesis testing was carried out. If the data significance value is greater than 0.05 (normally distributed) then a test with the Paires Sample T-Test will be performed. If the data is less than 0.05 (not normally distributed), the Wilcoxon Signed-Ranks Test will be carried out.

3.1.2 Comparison of Financial Performance Pre- and Post-Mergers and Acquisitions Based on CAR, DER, ROA, ROE, BOPO, FDR/LDR, and NPF/NPL Ratios.

Table 6. CAR Different Test Results

Ratio	Aferage		*Asymp. Sig (2-Tailed)*	Conclusion	Description
	Before	After			
CAR_1 Year	24,207	20,285	0,050	Not supported	There is no difference
CAR_2 Year	21,678	17,060	0,262	Not supported	There is no difference
CAR_3 Year	21,986	16,669	0,272	Not supported	There is no difference
CAR_4 Year	21,145	18,957	0,433	Not supported	There is no difference

Table 7. DER Difference Test Results

Ratio	Aferage		*Asymp. Sig (2-Tailed)*	Conclusion	Description
	Before	After			
DER_1 Year	7,934	7,452	0,570	Not supported	There is no difference
DER_2 Year	7,202	7,517	0,841	Not supported	There is no difference
DER_3 Year	8,587	7,943	0,763	Not supported	There is no difference
DER_4 Year	8,126	7,332	0,569	Not supported	There is no difference

Table 8. ROA Different Test Results

Ratio	Aferage		*Asymp. Sig (2-Tailed)*	Conclusion	Description
	Before	After			
ROA_1 Year	1,347	0,915	0,038	Supported	There is a difference
ROA_2 Year	1,708	1,266	0,249	Not supported	There is no difference
ROA_3 Year	1,535	1,473	0,837	Not supported	There is no difference
ROA_4 Year	1,817	1,370	0,319	Not supported	There is no difference

Table 9. ROE different Test Results

Ratio	Aferage		*Asymp. Sig (2-Tailed)*	Conclusion	Description
	Before	After			
ROE_1 Year	9,486	8,115	0,262	Not supported	There is no difference
ROE_2 Year	9,027	8,197	0,442	Not supported	There is no difference
ROE_3 Year	9,472	8,1733	0,378	Not supported	There is no difference

ROE_4 Year	12,641	7,208	0,054	Not supported	There is no difference

Table 10. BOPO Difference Test Results

Ratio	Aferage		*Asymp. Sig (2-Tailed)*	Conclusion	Description
	Before	After			
BOPO_1 Year	103,360	106,088	0,480	Not supported	There is no difference
BOPO_2 Year	104,264	95,651	0,583	Not supported	There is no difference
BOPO_3 Year	110,207	86,688	0,041	Supported	There is no difference
BOPO_4 Year	103,477	88,831	0,158	Not supported	There is no difference

Table 11. FDR/LDR Difference Test Results

Ratio	Aferage		*Asymp. Sig (2-Tailed)*	Conclusion	Description
	Before	After			
FDR/LDR_1 Year	95,347	100,047	0,167	Not supported	There is no difference
FDR/LDR_2 Year	97,849	97,827	0,997	Not supported	There is no difference
FDR/LDR_3 Year	89,794	92,560	0,239	Not supported	There is no difference
FDR/LDR_4 Year	86,465	97,483	0,418	Not supported	There is no difference

Table 12. Results of NPF/NPL Difference Test

Ratio	Aferage		*Asymp. Sig (2-Tailed)*	Conclusion	Description
	Before	After			
NPF/NPL_1 Year	2,970	1,700	0,240	Not supported	There is no difference
NPF/NPL_2 Year	3,875	6,929	0,158	Not supported	There is no difference
NPF/NPL_3 Year	4,231	6,740	0,182	Not supported	There is no difference
NPF/NPL_4 Year	16,404	8,447	0,131	Not supported	There is no difference

Table 13. Manova Test Results

Description	Effect	Value	F	Sig.	α
Before and After	*Pillai's Trace*	0,178	2,717	0.013	0,05
	Wilks' Lambda	,822	2,717	0,013	0,05
	Hotelling's Trace	0,216	2,717	0,013	0,05

M&A	*Roy's Largest Root*	0,216	2,717	0,013	0,05

Based on the table above, it can be concluded:

a. Table 6. show the significance value of CAR in all years of observation before and after M&A is greater than 0,05 this indicates that the company does not experience a significant difference in the Capital Adequacy Ratio (CAR) between before and after M&A mergers and acquisitions
b. Table 7. show the significance value of DER in all years of observation before and after M&A is greater than 0,05 this indicates that the company does not experience significant differences in financial performance in the Debt Equity Ratio (DER) between before and after M&A.
c. Table 8. show the significance value of ROA in 1 year before and after M&A is 0,038 (0,038 < 0,05) so there is a difference ROA between the 1 year before and after M&A. While the significance value of ROA in 2 years, 3 years, and 4 years before and after M&A is greater than 0,05 so that 75% ROA does not experience a difference between before and after M&A, this indicates that the company does not experience a significant difference in Return on Assets. (ROA).
d. Table 9. show the significance value of ROE in all years of observation before and after M&A is greater than 0,05 this indicates that the company does not experience a significant difference in the Return on Equity Ratio (ROE) between before and after M&A.
e. Table 10. show the significance value of BOPO in the 3 years before and after the M&A is 0,041 (0,041 < 0,05) so there is a difference BOPO between the 3 years before and after the M&A. Meanwhile, the significance value of BOPO in 1 year, 2 years, and 4 years before and after M&A is greater than 0,05 so that 75% of BOPO does not experience a difference before and after M&A, this indicates that the company does not experience a significant difference in Operating Expenses to Operating Income (BOPO).
f. Table 11. show the significance value of FDR/LDR in all years of observation before and after M&A is greater than 0,05 this indicates that the company does not experience a significant difference in the financing/loan ratio Deposit Ratio (FDR/LDR) between before and after M&A.
g. Table 12. show the significance value of NPF/NPL in all years of observation before and after M&A is greater than 0,05 this indicates that the company does not experience a significant difference in the ratio of Non Performing Financing /Loan (NPF/NPL) between before and after M&A.
h. Table 13. show the significance value before and after M&A is less than 0,05 this indicates that the company experiences significant differences in financial performance simultaneously in financial performance between before and after M&A.

3.2 Discussion

a. CAR measures the ability of the company's capital to support its operational activities to generate profits for the company. From the results of research conducted on the CAR ratio between before and after M&A, there is no significant difference. These results are in accordance with the research of Al'an'am (2021) and Rulikinanti (2021). This is presumably due to the insignificant change in bank capital after the M&A and the increase in RWA which was not matched by an increase in core capital.
b. DER describes how much the company's financial structure is financed by debt. The low DER ratio indicates that the company is getting better at managing its long-term debt. The results of the study on the DER ratio showed that there was no difference between

the DER ratio before and after the M&A. These results are in line with research by Ghozali (2019) and Azhari (2015). This is presumably because the M&A action requires a large enough cost so that several companies that carry out M&A actions make loans to third parties to finance M&A actions which result in high levels of debt so that there is no significant difference in company liquidity as measured by DER between before and after M&A.

c. ROA measures the company's ability to utilize its assets to generate profits by comparing earnings before tax with total assets. The results of this study indicate that there is no significant difference in the ROA ratio during the observation period. These results are in line with the research of Silaban (2017) and Amelia (2016). This is presumably because most of the company's profitability did not experience a significant increase during the observation period as well as different management management after the M&A which caused a culture shock of human resources so that it did not provide maximum performance in order to increase company profits.
d. ROE measures how much the company's ability to provide benefits to shareholders who have financed its operations. The results of this study indicate that there is no significant difference in the ROE ratio between before and after M&A. These results are in line with the research of Silaban (2017) and Silalahi (2020). This is presumably because the company has not been able to increase the scale of the economy and the scope of the economy and the company has not been optimal and efficient in managing its assets to generate profits for the company.
e. BOPO measures the ability and efficiency of operating income to cover operational costs. In banking in Indonesia, there is no significant difference in the BOPO ratio between before and after M&A. These results are in line with research by Rianti (2018) and Dewi (2016). This is presumably due to an increase in operational costs after the M&A and the company has not implemented good GCG in controlling the efficiency side in order to improve financial performance after the M&A has been carried out.
f. FDR/LDR carves out how much credit or financing the company provides compared to its own capital and third party funds used. The results of this study indicate that there is no significant difference in the FDR/LDR ratio between before and after M&A. These results are in line with research by Rianti (2018) and Al'an'am (2021). This is presumably because the number of loans disbursed to customers compared to third party funds, there is no significant difference between before and after mergers and acquisitions in several banking companies were observed.
g. NPF/NPL measures how much financing or bad credit is provided by the bank. The results of this study indicate that there is no significant difference in the NPF/NPL ratio between before and after M&A. These results are in line with research conducted by Astuti (2021) and Dewi (2016). This is presumably due to insignificant changes in NPF/NPL during 1 year and 2 years before and after the M&A and the takeover company that has not been optimal in selecting customers in providing credit to prevent bad loans.
h. Financial performance describes the company's ability to carry out its operations to generate profits. The results of this study indicate that there are significant differences in financial performance between before and after M&A. This is in line with research conducted by Novaliza (2013) and Pranawita (2017). It is suspected that M&A can improve the company's operations so as to improve the company's financial performance as well as the more efficient and optimal company in utilizing assets to increase profits. In addition, by conducting M&A the company can improve company management and increase market share in order to maintain the company's existence.

4. CONCLUSION

a. The results of the Wilcoxon Signed-Ranks Test and Paired Sample T-Test on the ratios of CAR, DER, ROA, ROE, BOPO, FDR/LDR, and NPF/NPL four years before and four years after M&A in banking companies registered with the Financial Services Authority showed that there was no significant difference.

b. There are differences in the results of the Multivariate Analysis of Variance (Manova) test between four years before and four years after M&A in banking companies registered with the Financial Services Authority.

5. SUGGESTIONS

a. This study only analyzed four years before and four years after the M&A, so it is recommended that further research be added to the study period.
b. Further research can add other ratios such as net interest margin, net profit margin, and total asset turnover to assess financial performance before and after M&A.

COMPETING INTERESTS DISCLAIMER:

Authors have declared that no competing interests exist. The products used for this research are commonly and predominantly use products in our area of research and country. There is absolutely no conflict of interest between the authors and producers of the products because we do not intend to use these products as an avenue for any litigation but for the advancement of knowledge. Also, the research was not funded by the producing company rather it was funded by personal efforts of the authors.

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