THE INFLUENCE OF MERGERS AND ACQUISITIONS ON FINANCIAL PERFORMANCE AND STOCK RETURN OF INDONESIAN BANKS

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ABSTRACT: *Business environment has changed rapidly due to dynamic changes in the current global era. Merger and acquisition activities are not a new phenomenon in the business world, and it's an important business phenomenon. One of the changes that can be seen from the merger and acquisition activities are company's financial performance and stock return. The purpose of this study is to analyze banks financial performance with financial ratios before and after mergers and acquisitions, analyze the effect of mergers and acquisitions on bank financial performance and analyze the factors that influence the success of mergers and acquisitions. This research used Kolmogorov-Smirnov normality test and Wilcoxon test and logistic regression. The results showed that ROA, OER, NPL, NIM and LDR improved after mergers and acquisitions. Mergers and acquisitions also affect the differences in ROA, OER, NPL, NIM, and LDR before and after mergers and acquisitions. Factors that affect the success of mergers and acquisitions are foreign ownership, acquisition percentage and firm size when viewed the success of merger and acquisition from bank's ability to increase its net profit. In addition, when viewed from the stock returns obtained factors that affect the success of a merger and acquisition are foreign ownership, the percentage of acquisitions and industry relatedness.*

KEYWORDS: Merger and Acquisition, Financial Performance, Stock Return

JEL Classification: G11, G21, G34

INTRODUCTION

Business environment has changed rapidly due to dynamic changes in the current global era. Every company must be dynamic and has a good adaptability to the ever-changing economic situation and condition. Companies have a vision to be the best company and with that vision they try to maximize market share and good growth in the future (Abbas et al. 2014).

Merger and acquisition activity is not a new phenomenon in the business world and is an important business phenomenon (Yu 2013). Merger and acquisition activity began to bloom by multinational companies in America and Europe since the 1960s while the merger and acquisition activity in Indonesia has been known sectorally, especially in the banking sector before the enactment of Law no. 1 of 1995 regarding company's limited liability. The term M&A became popular after the merger of 4 large banks belonging to the government that joined because of the crisis which eventually became Bank Mandiri in 1998. Based on the needs of the blue print of national banking and as a continuation of the bank restructuring program that has been running since 1998, on January 9, 2004 Bank Indonesia has launched the Indonesian Banking Architecture (IBA) as a comprehensive framework for the policy direction of Indonesian banking industry development in the future.

The Indonesian Banking Architecture (IBA) is a comprehensive framework of Indonesian banking system and provides the direction, form and structure of the banking industry for the next five to ten years. The direction of future banking industry development policies formulated by the IBA is based on the vision of achieving a sound, robust and efficient banking system to create financial system stability in order to drive national economic growth. One of the pillars in the IBA is a program of strengthening the national banking structure that aims to strengthen the capital of commercial banks (conventional and sharia). Efforts to increase the capital of these banks can be done by creating a business plan with the way of achievement can be done through the addition of new capital either from old shareholder or new investor and merger with bank (some other banks) to reach new minimum capital requirement.

Since the enactment of PP 57/2010 which regulates the merger or consolidation of business entities and the acquisition of shares of corporations which may result in monopolistic practices and unfair business competition, The Commision for the Supervision of Business Competition (CSBC) begin to systematically record the activities of mergers/acquisitions occurred in Indonesia. During the two year period fof the enactment of PP 57/2010, CSBC recorded dozens of merger/acquisition notifications. In fact, the quantity of merger/acquisition activity is increasing in line with national and international economic growth rate. It said that 2010 and 2011 are the years when the wave of mergers swept over Indonesia. In 2010 there was 7 notifications of merger/acquisition reported in the Commission, continued in 2011 there was 45 notifications of mergers/acquisitions in Indonesia. It's likely, throughout the history of mergers/acquisitions in CSBC, the wave of merger in Indonesia has peaked in the present where there are many business people doing merger/acquisition activity. The number of incoming notifications flows very swiftly and is expected to continue to increase in the future.

Based on previous studies, there is no uniformity in the results of research on mergers and acquisitions that occurred in the Bank. Prior research showed the results of significant differences are largely discussed only on financial performance in terms of profitability, and only few examined the operational efficiency, credit risk, market risk, capital adequacy, and liquidity in accordance with the rules of the Financial Services Authority (FSA). Based on this background, the objectives of this research are:

1. Analyze the financial performance of banks with financial ratios before and after the bank conducted mergers and acquisitions.

2. Analyze the effect of mergers and acquisitions on bank financial performance.

3. Analyze the factors that influence the success of mergers and acquisitions.

LITERATURE REVIEW

According to Law no. 10 of 1998 on amendment to Law no. 7 of 1992 concerning banking, the Bank is a business entity that collects funds from the public in the form of savings and distributes it to the community in the form of credit and or other forms in order to improve the standard of living of many people.

The most controversial activities in financial management are mergers and acquisitions. In general, merger is a combination of two or more companies become one new company. Generally a merger is defined as a transaction that encapsulates several economic units into a

new economic unit. While the acquisition is a purchase of other companies-generally done by large companies against small companies. The merger or acquisition is a transaction where two or more companies merge into one, according to Shim and Okamura (2011), mergers are defined as merging two or more companies into one other legal entity with the acquisition, the target company is not integrated into the acquirer company but is taken over as its subsidiary, so the target identity is not lost as a company. According to Durga and Kumar (2013) mergers and acquisitions as activities involving acquisitions, corporate restructuring, or corporate controls that change in the company's ownership structure.

Mergers and acquisitions are made by the company basically to achieve the following objectives (Gaughan 2007):

1. To achieve faster growth, especially for companies in the industry that are slowing down. With such growth, management can increase returns to shareholders.

2. To achieve synergy, both synergies to increase revenue, achieve economies of scale, and synergies for finance, namely the ability to gain access to capital markets.

3. Diversification, ie diversification to dominate the market, grab new markets and diversify into more profitable industries.

4. Other economic motives, such as vertical and horizontal integration.

Research on merger and acquisition activities has successfully achieved the expected objectives in line with those described (Gaughan 2007), as described by Masud (2015), Kithituet et al. (2012), Marks and Mirvins (2001), Sihna et al. (2010), and Korican et al. (2014). Other studies suggest otherwise as described by Gugler et al. (2003), Agrawal and Jaffe (2000), Gugler et al. (2003) said that as many as 43% of companies experiencing mergers and acquisitions reported a decrease in revenue when compared to companies that did not merge and acquisition. Agrawal and Jaffe (2000) reported that more than 50% of companies in the US experienced a decrease in cumulative abnormal return (CAR).

Company's financial performance is the achievement achieved by the company in a certain period that reflects the company's level of health or a description of the company's financial condition for a certain period of time, both on capital and liquidity (Munawir 1997). If linked to mergers and acquisitions an operational financial performance appraisal approach that measures the success of mergers and acquisitions is also illustrated by financial ratios. Ratio analysis can reveal important relationships and become the basis of comparison in finding conditions and trends that are difficult to detect by studying each of the components that make up the ratios (Novaliza and Djajanti 2013).

Stock return is the result of an investment. Return can be either realization return that already happened or return of expectation that have not happened yet expected to happen in the future (Jogiyanto 2000). Research conducted by Limmack (1991) which observes the effect of Mergers on the level of prosperity of the shareholders of the acquiring company. Abnormal return is observed around the date of acquisition and on the date of the announcement of the financial statements both to the target company's shareholders and the acquirer company is measured the level of prosperity.

METHODOLOGY

This research used go public banks as research object. The samples of the research are PT Bank Rakyat Indonesia Agro Tbk (AGRO), PT Bank Nusantara Parahyangan Tbk (BBNP), PT Bank Danamon Indonesia Tbk (BDMN), PT Bank CIMB Niaga Tbk (BNGA), PT Bank Maybank Indonesia Tbk (BNII), PT Bank Permata Tbk (BNLI), PT Bank of India Indonesia Tbk (BSWD), PT Bank OCBC NISP Tbk (NISP), and China Contruction Bank Indonesia Tbk (MCOR). The research data is secondary data of annual report from every go public banks in Indonesia which do merger and acquisition with period of data from 1998 until 2016. The research procedure is descriptive analysis of financial performance of each bank before and after merger and acquisition. Then analyze the effect of merger and acquisition on bank financial performance, after test the data normality with Kolmogorov-Smirnov test. If data is normal, distributed data is tested by paired t-test, if abnormal distribution is using Wilcoxon test. After that analyze the factors that influence the success of the merger and acquisition with logistic regression model as follows:

$$Li = Log \left(\frac{P}{1-P}\right) = \alpha_0 + \alpha_1 \chi_1 + \alpha_2 \chi_2 + \alpha_3 \chi_3 + \alpha_4 \chi_4 D + e$$

Information:

Li   = Log (P / (1-P)); P = for ROA that shows significant rising effect as success after merger/acquisition

          and 1-P = for ROA that does not show influence as failing after merger / acquisition

α_0 = constants

α_1 s.d. α_4 = Regression coefficients of each variable

χ_1 = Foreign Ownership

χ_2 = % Acquisition

χ_3 = Company Size

$\chi_4 D$ = Industrial Relatedness: Dummy

e   = Standard Error

After that, the analysis of the factors that influence the success of the merger and acquisition is continued by using stock return which is described by Cumulative Abnormal Return (CAR) as the independent variable. Table 1 shows the variables used in the study.

Table 1. Research Variables

Variable	Symbol	Description
Return on Asset	ROA	A ratio which show the company's ability to generate net income from assets owned. ROA shows all profitability (net income relative to the amount of investment in assets) produced by the company (Dendawijaya 2000).
Operational Efficiency Ratio	OER	A ratio to show operational efficiency by comparing total operating costs with total operating income. In addition to the level of efficiency shown from the ratio of OER is the ability of banks in conducting its operational activities (Kaligis 2013).
Non-Performing Loan	NPL	The ratio to measure credit risk associated with bank financing. NPL is non-performing loan and is included in substandard, doubtful and loss credits. Credit risk is a risk faced by banks for channeling funds in the form of loans to the public (Ali in Mahardian 2008).
Net Interest Margin	NIM	The ratio used to measure the bank's management capability in managing its earning assets to generate net interest income, so the ability of banks is shown to obtain operating income from funds placed in the form of loans (credit)
Capital Adequacy Ratio	CAR	Bank performance ratio to measure capital adequacy owned by banks to support assets that contain or generate risk. The CAR calculation is based on the principle that every planting that contains risks must be provided with a certain percentage of capital to the amount of planting (Roswitasari 2017).
Loan to Deposit Ratio	LDR	The ratio that measures liquidity by the formula compares the total credit and TPF (Third Party Funds).
Foreign Ownership	-	The percentage of share ownership by foreign investors.
Acquisition Percentage	-	The percentage of the shares of the company being foreclosed.
Firm Size	-	Total Assets owned by the company.
Industrial Relatedness (Dummy)	-	The Relatedness between the company's acquisition industry and the target company, 1 for bank, 0 for not the bank.
Stock Return	Rit	The amount of income received by investors on their investments in certain companies.
Market Return	R_{mit}	A change in price index for a given period.
Abnormal Return	AR	The differences between a single stock or portfolio's performance and the expected return over a set period of time.
Cumulative Abnormal Return	CAR	The sum of abnormal returns during the event window.

RESULT

The description of the bank's financial performance before and after M&A begins with a Return on Asset (ROA) variable. This study used 5 years data before the occurrence of M&A and 5 years after the occurrence of M&A. The average ROA result in the 5 years before and 5 years after M & A is depicted in Appendix 1. Return on Asset (ROA) is a measure of performance

that describes the level of profitability or the rate of return of a company in this case the bank. ROA shows the effectiveness (ability) of bank management in generating profit from total assets owned by the bank. Profitability measured by the ROA ratio, in aggregate shows an increase. When compared with the average value before the merger and acquisition average ROA rose from -3.01% to 1.96%. However, when observed individually not all banks have increased ROA. From 9 sample research, 7 banks experienced an increase in ROA while 2 other banks experienced a decrease in profitability.

The performance of operational efficiency as measured by the ratio of operational cost to operating income (OER) in the sample bank showed improved performance. As seen in Appendix 1, OER ratio decreased from 116.90% before merger and acquisition became 82.22% after merger. If seen individually there are banks that have increased OER after the merger and acquisition process of BBNP and BNII. This means that the bank's operational costs increase or its operating income declines after mergers and acquisitions.

The average value of credit risk shown in Appendix 2 as measured by the ratio of NPL (Non-Performing Loan) to the sample bank as a whole also showed better performance, down from 9.94% to 2.27%. This indicates that the average of bad debts of sample banks has declined after mergers and acquisitions. The average NIM ratio (Net Interest Margin) in Appendix 2 also experienced a positive movement. The NIM ratio is used as a measure of bank performance earning interest income from the given credit. Overall, the average value of the NIM ratio after mergers and acquisitions increased by 2.44% from 3.09% to 5.35%. Individual samples of banks that experienced NIM decreased were NISP and MCOR.

The capital adequacy ratio shown in Appendix 3, calculated by CAR (Capital Adequacy Ratio) ratio of the 9 samples tested showed decline after mergers and acquisitions compared to before mergers and acquisitions, indicated aggregate the mean of CAR from 18.37% to 17.29% but when viewed individually there are banks that experienced a CAR increase after mergers and acquisitions, such as AGRO, BDMN, BNLI, BSWD, and NISP. While bank liquidity as measured by the ratio of LDR (Loan to Deposit Ratio) in aggregate increase. As seen in Appendix 3, overall average LDR ratio before 63.80% M&A increased by 21.07% to 84.47%.

Furthermore, financial performance analysis before and after M&A begins with normality test of 6 studied variables which are ROA, OER, NPL, NIM, CAR and LDR. Table 2-4 shows the results of the normality test with the Kolmogorov-Smirnov One-Sample test.

The one-sample Kolmogorov-Smirnov test for ROA in Table 2 (a) shows the result that asymp.sig (2-tailed) value is less than $\alpha = 0.05$ for ROA before, ROA after and ROA combined. The results obtained if the asymp.sig (2-tailed) value less than $\alpha = 0.05$ indicates that the ROA data is not normally distributed. The one-sample Kolmogorov-Smirnov test for OER in Table 2 (b) shows the result that the asym.sig (2-tailed) value is less than $\alpha = 0.05$ for OER before and OER combined. The results obtained for OER before and OER combined are not normally distributed. Otherwise the results obtained for OER after indicating that the asymp.sig (2-tailed) value is more than $\alpha = 0.05$. The results shown that OER after is normally distributed.

The one-sample Kolmogorov-Smirnov for NPL result in Table 3 (a) shows that asymp.sig (2-tailed) value is less than $\alpha = 0.05$ for NPL before, NPL after and NPL combined. The results obtained if the asymp.sig (2-tailed) value less than $\alpha = 0.05$ indicates that NPL data is not normally distributed.

The one-sample kolmogorov-smirnov for NIM test result in Table 3 (b) shows that asymp.sig (2-tailed) value is less than $\alpha = 0.05$ for NIM before and NIM combined. The results obtained if the asymp.sig (2-tailed) value less than $\alpha = 0.05$ indicates that NIM before and NIM combined data are not normally distributed. As with the NIM after, the asymp sig (2-tailed) value is more than $\alpha = 0.05$, indicating that NIM after normally distributed.

Table 2. One-sample Kolmogorov-Smirnov test results of ROA (a) and OER (b)

(a)		ROA pre M&A	ROA post M&A	ROA Combined
N		45	45	90
Normal Parameters[a,b]	Mean	-3.01	1.95	-0.53
	Std. Deviation	16.38	1.04	11.81
Most Extreme Differences	Absolute	0.41	0.17	0.42
	Positive	0.35	0.17	0.34
	Negative	-0.41	-0.12	-0.42
Test Statistic		0.41	0.17	0.42
Asymp. Sig. (2-tailed)		0.000	0.003	0.000

(b)		OER pre M&A	OER post M&A	OER Combined
N		45	45	90
Normal Parameters[a,b]	Mean	116.9	82.22	99.56
	Std. Deviation	63.49	8.68	48.31
Most Extreme Differences	Absolute	0.34	0.13	0.35
	Positive	0.34	0.09	0.35
	Negative	-0.25	-0.13	-0.23
Test Statistic		0.34	0.13	0.35
Asymp. Sig. (2-tailed)		0.000	0.051	0.000

Table 3. One-sample Kolmogorov-Smirnov test results of NPL (a) and NIM (b)

(a)		NPL pre M&A	NPL post M&A	NPL Combined
N		45	45	90
Normal Parameters[a,b]	Mean	9.94	2.27	6.1
	Std. Deviation	15.14	1.32	11.36
Most Extreme Differences	Absolute	0.31	0.14	0.33
	Positive	0.31	0.14	0.33
	Negative	-0.26	-0.1	-0.3
Test Statistic		0.31	0.14	0.33
Asymp. Sig. (2-tailed)		0.000	0.039	0.000

(b)		NIM pre M&A	NIM Post M&A	NIM Combined
N		45	45	90
Normal Parameters[a,b]	Mean	3.09	5.53	4.31
	Std. Deviation	6.33	1.46	4.73
Most Extreme Differences	Absolute	0.34	0.11	0.32
	Positive	0.27	0.11	0.22
	Negative	-0.34	-0.06	-0.32
Test Statistic		0.34	0.11	0.32
Asymp. Sig. (2-tailed)		0.000	0.200	0.000

The one-sample Kolmogorov-Smirnov test for CAR in Table 4 (a) shows the result that the asymp value. Sig (2-tailed) is less than $\alpha = 0.05$ for CAR before, CAR after and CAR combined. Results obtained if the value of asymp. Sig (2-tailed) less than $\alpha = 0.05$ indicates that the CAR data are not normally distributed. The one-sample Kolmogorov-Smirnov test for LDR in Table

4 (b) shows the result that the asymp value (2-tailed) is less than α = 0.05 for LDR before and LDR combined. The results obtained if the asymp.sig (2-tailed) value less than α = 0.05 indicates that LDR before and LDR combined data are not normally distributed. As with the data of LDR after, the asymp sig (2-tailed) value is more than α = 0.05, indicating that the LDR after is normally distributed.

Table 4. One-sample Kolmogorov-Smirnov test results of CAR (a) and LDR (b)

(a)

		CAR pre M&A	CAR post M&A	CAR Combined
N		45	45	90
Normal Parameters[a,b]	Mean	18.37	17.29	17.83
	Std. Deviation	17.64	5.49	13
Most Extreme Differences	Absolute	0.28	0.17	0.25
	Positive	0.2	0.17	0.16
	Negative	-0.28	-0.12	-0.25
Test Statistic		0.28	0.17	0.25
Asymp. Sig. (2-tailed)		0.000	0.002	0.000

(b)

		LDR pre M&A	LDR post M&A	LDR Combined
N		45	45	90
Normal Parameters[a,b]	Mean	63.8	84.87	74.34
	Std. Deviation	34.14	7.39	26.75
Most Extreme Differences	Absolute	0.16	0.1	0.2
	Positive	0.16	0.08	0.2
	Negative	-0.07	-0.1	-0.16
Test Statistic		0.16	0.1	0.2
Asymp. Sig. (2-tailed)		0.004	0.200	0.000

The results of Asymp value. Sig (2-tailed) of all variables shown that no single pair is normally distributed, therefore the procedure for paired t-test can not be used. The method that can be used is non-parametric method, in this case using Wilcoxon test. Once it is known that the data is not normally distributed, to find out the effect of mergers and acquisitions on financial performance, the Wilcoxon test is used. The Wilcoxon test results are shown in Table 5.

Table 5. The effect of merger and acquisition on financial performance test result

	ROA Pre M&A-Post M&A	OER Pre M&A-Post M&A	NPL Pre M&A-Post M&A	NIM Pre M&A-Post M&A	CAR Pre M&A-Post M&A	LDR Pre M&A-Post M&A
Z	-4.137	-4.628	-5.441	-2.551	-1.450	-4.820
Asymp. Sig. (2-tailed)	0.000	0.000	0.000	0.011	0.147	0.000

The test results show that the asymp sig (2-tailed) value for ROA is 0.000. This value is less than α = 0.05 which means there is a significant difference in the level of α 5% between ROA before and after M&A. A significant increase in ROA between before and after M&A signifies that a good rate of return on total assets in a bank experiencing M&A. Banks that experiencing M&A effectively use their assets to make a profit. Significant increase in ROA after the bank experienced M&A is accordance to the research of Fraser and Zhang (2009) who examined the

acquisition of cross-border banks in America using profitability indicator such as ROA and ROE. The result indicated that the acquisition improves the profitability of target companies and Chouliaras and Stergios (2013) who examined M&A activity in the Greek banking system that contributes to raise the profitability of these banks but does not lead to improved bank efficiency.

Operational Efficiency Ratio (OER) shows the asymp sig (2-tailed) value of 0.00. The value is less than α = 0.05 then there is a difference in OER before and after M & A. a significant decrease in OER occurs between before and after M&A, this is correlated with ROA, the lower the OER the higher the ROA of a bank. This is because the more efficient a bank in carrying out its operational activities, the greater the bank's ability to generate profits.

The value of asymp sig (2-tailed) NPL is 0.00. The value is less than α = 0.05 which means there is a difference between NPL before and after M&A. The decrease in NPL after M&A occurred very significant, the evaluation of bank management after M&A on the collectivity of the debtor is well controlled. Bank implements a control function as a credit risk controlling business to all segments/business units related to lending. The results obtained on the difference between the NPL before and after the bank did M&A, supporting the research conducted by Altunbas and Marques (2008) stating that there is an increase in performance in banks that merge and acquire with foreign ownership, especially performance related to credit risk and liquidity.

The asymp sig (2-tailed) NIM value is 0.01. The value is less than α = 0.05 which means there is a difference between NIM before and after M&A. The NIM increase experienced by banks from before M&A to after M&A indicates that banks in terms of increasing their earning assets are also offset by an increase in net interest income.

The asymp sig (2-tailed) CAR value is 0.08. The value is more than α = 0.05 which means there is no difference between CAR before and after M&A. In addition, there is no significant difference, based on the average of CAR value between before and after M&A presented earlier this decrease is due to the rising risk-weighted assets (ATMR) after significant M&A which is not matched by the increase in bank capital. With the existence of a business combination of capital increase can occur significantly. The largest increase in Risk Weighted Assets in credit-weighted assets is due to the substantial growth in M&A loan growth. Despite the decline, the bank's CAR performance still meets the standard criteria set by Bank Indonesia at 8%. The results obtained are consistent with the research conducted by Fraser and Zhang (2009) on the measurement of capital adequacy indicators of acquired banks also showed there is no difference between before and after the acquisition.

The asymp sig (2-tailed) LDR value is 0.00. The value is less than α = 0.05 which means there is a difference between LDR before and after M&A. An increase in LDR based on the average LDR indicates that with the addition in credit is offset by the existing bank deposits in the bank after the M&A process. The increase in LDR and significantly different illustrates that banks are able to pay short-term liabilities.

After analyzing the effect of mergers and acquisitions on financial performance, the next step is to determine the factors that influence the success of a merger and acquisition with a logistic regression model. The result of the logistic regression model formed from the variables described earlier is as follows:

Log ROA = -17.244 - 0.056 foreign ownership + 0.144 percent acquisition + 0,503 firm size + 2,229 industry Relatedness + e

Table 6 is the result of logistic regression of variables that are expected to have an effect on ROA. From the table information obtained are the resulting regression model, the coefficient of each variable and its effects.

Table 6. Logistic regression result with ROA as dependent variable

Variable	Coefisien	Sig	Odds Ratio
Foreign Ownership	-0.056	0.014	0.946
% Acquisition	0.144	0.003	1.154
Company Size	0.503	0.026	1.654
Industry Relatedness (D)	2.229	0.125	9.287
Constanta	-17.244	0.017	0.000

Model and Table 6 shown the variables that have significant or unaffected influences. The first significant influence is seen from the value of P Wald test (Sig), if the value of P Wald test (Sig) is less than $\alpha = 0.05$ then the variable has a significant influence on ROA. Conversely, if the P value of the Wald test (Sig) is more than $\alpha = 0.05$, that variable has no significant effect.

The model shows that the variable that has no significant effect is the industry Relatedness. The result of logistic regression shows that industry Relatedness with coefficient value is 2.229 and value of sig 0.125. It can be concluded that industry Relatednesss when viewed from its sig value greater than $\alpha = 0.05$ then industry Relatedness does not affect the success or failure of the merger significantly.

The independent variables that have significant influence on the dependent variable are foreign ownership, acquisition percentage and firm size. The results showed that the coefficient value for foreign ownership was 0.056 and the sig value was 0.014, with the odds ratio of 0.946. The percentage of acquisition has a value of 0.144 and a sig value of 0.003, with an odds ratio of 1.154. The size of the company has a coefficient of 0.503 and the sig value of 0.026 with an odds ratio of 1.654. From those results it can be concluded that foreign ownership, acquisition percentage and firm size have significant influence on ROA in the model because the P value of Wald test (sig) is less than $\alpha = 0.05$. If it's viewed from the positive sign on the coefficient, the greater the percentage of acquisition and size of the company will provide a positive relationship to the significance of ROA. The amount of influence is indicated by the value of odds ratio. The percentage of acquisitions with an odds ratio of 1.154, the bank with a large percentage of acquisitions will experience an M&A success (increasing in ROA) of 1.154 times compared to the failed M&A bank. The size of the company has an odds ratio of 1.654, then a bank with a large corporate size will experience a success of M&A (increasing in ROA) as much as 1.654 times compared with banks that failed with M&A.

The negative sign on the coefficient then foreign ownership gives a negative relationship (inverse) to the significance of ROA. The magnitude of influence is indicated by the value of odds ratio. The association of industries with an odds ratio of 0.9464, the bank with a few percentage of foreign ownership will experience a change in ROA as much as 0.946 times compared with bank that failed in M&A.

The success of an M&A when it's seen from ROA value that shows a significant difference up, also seen from the stock returns that rose between before and after M&A. The Cumulative Abnormal Return (CAR) value becomes the dependent variable to be used in the logistic regression model. The result of logistic regression model that is formed is as follows:

Log CAR = -5.359 - 0.250 foreign ownership + 0.117 percent acquisition + 0.641 firm size - 16,498 industry Relatednesss + e

Table 7 is logistic regression results of variables suspected to have an effect on CAR. From the table information obtained are the resulting regression model, the coefficient of each variable and its effects. The model shows the variable that has no influence is the size of the company. The result of logistic regression shows that firm size has coefficient 0.219 and value of sig 0.114. When viewed from its sig value is greater than $\alpha = 0.05$, the company size does not affect the success of the M&A depicted by the increase of CAR.

Tabel 7. Logistic regression result of CAR as dependent variable

Variable	Coefisien	Sig	Odds Ratio
Foreign Ownership	-0.169	0.006	0.844
% Acquisition	0.079	0.000	1.082
Company Size	0.219	0.114	1.244
Industry Relatedness (D)	-11.356	0.020	0.000
Constanta	2.893	0.582	18.042

Independent variables that have significant influence on the dependent variable are foreign ownership, acquisition percentage and industry Relatedness. The logistic regression result shows that coefficient value for foreign ownership variable is -0.169 with sig value 0.006 and odds ratio equal to 0.844. For the percentage of acquisition coefficient value of 0.079 with a sig value of 0.000 and odds ratio of 1.082, and for industry Relatedness shows coefficient value of -11.356 with sig value of 0.020 and odds ratio of 0.000. From thise results can be concluded that foreign ownership, the percentage of acquisition and industrial pain has a significant effect on CAR in the model because the P value of the Wald test (sig) is less than 0.05.

When viewed from a positive sign on the coefficient, the greater the percentage of acquisitions will provide a positive relationship to the significance of CAR. The amount of influence is indicated by the value of odds ratio. The percentage of acquisitions with an odds ratio of 1.082 so a bank with a large percentage of acquisitions will experience M&A success (CAR increased by 1.082 times compared to a failing M&A bank).

When viewed from the negative sign on the coefficient, foreign ownership and industrial Relatedness have a negative (inverse) correlation to CAR significance. The magnitude of influence is indicated by the value of odds ratio. Foreign ownership with an odds ratio of 0844, a bank with a few percentage of foreign ownership will experience a change in CAR of 0.844

times compared to a failed M&A bank. Industry Relatedness with the odds ratio of 0.000 then the bank with the lack of industry Relatedness it will experience the change of CAR as much as 0.000 times compared with bank that failed with M&A.

Managerial Implication

Based on the results of statistical descriptive analysis of all research variables, panel analysis and logistic regression performed on merged and acquired banks during the period of 1999 to 2016, its managerial implications to investors, banks and Financial Services Authorities are as follows:

1. Investors: When financial performance declines or there is no significant change after the merger and acquisition, the stock return from the bank can be considered for investors to invest in merged banks and acquisitions.

2. Banks: Management must make decision when financial performance declines when CAR after mergers and acquisitions is declined compared to before mergers and acquisitions by raising capital when weighted assets are rising according to bank risks.

3. Financial Services Authority: Improved the supervision against mergers and acquisitions issuers, primarily related to the impact of these transactions on business competition within the banking industry.

CONCLUSION

Financial performance projected with financial ratios such as ROA, OER, NPL, NIM, and LDR improved after M&A, only CAR showed declining after M&A. The ability of banks to generate net income from their owned assets has increased, as well as for operational efficiency, and a decrease in non-performing loans in banks, the increase also occurs in the management of bank earning assets to generate net interest income and improved liquidity. However, the level of capital adequacy owned by banks has not been able to support the assets that contain or generate risks.

The results of statistical tests showed that M&A significantly affects the difference in financial performance between before and after M&A which is proxied by financial ratios such as ROA, OER, NPL, NIM and LDR. However M&A is not significantly influential for CAR before and after M & A.

Factors influencing the success of M&A are foreign ownership, acquisition percentage, and firm size when viewed the success of an M&A from bank's ability to increase its net profit. In addition, when viewed from the stock returns obtained factors that affect the success of a merger and acquisition are foreign ownership, the percentage of acquisitions and industry Relatednesss.

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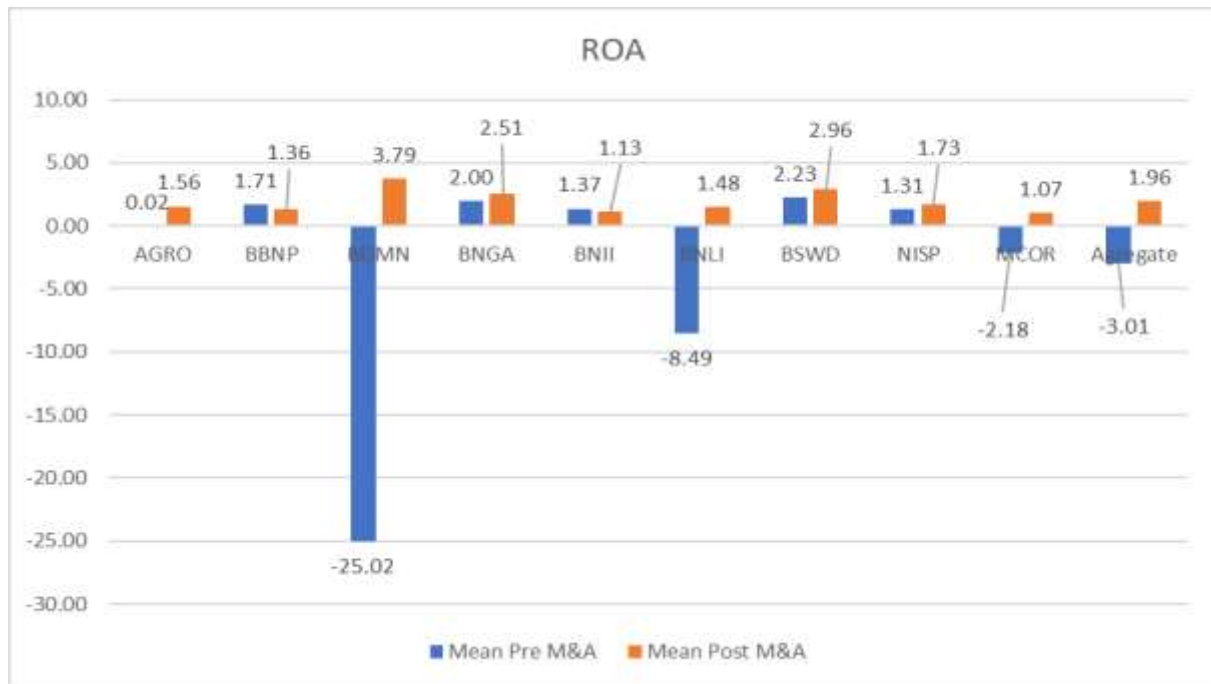
APPENDIX 1

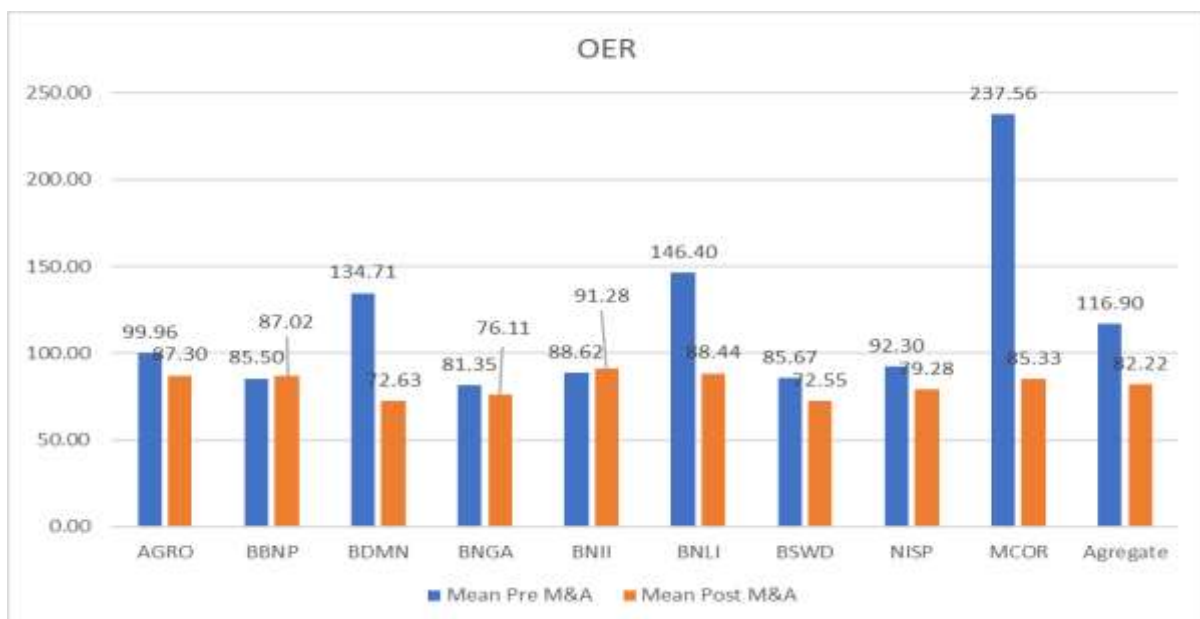**Figure 1.1 Average of Return on Asset (ROA) before and after M&A**

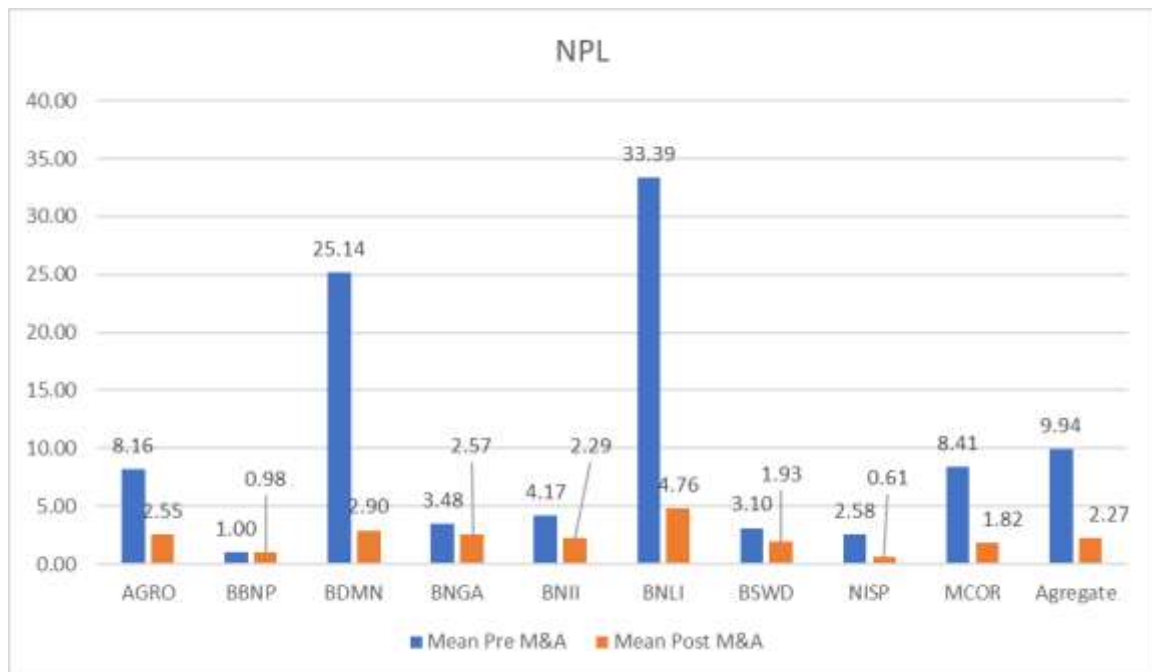**Figure 1.2. Average of operational efficiency (OER) before and after M&A**

Appendix 2

Figure 2.1 Average of Non-Performing loan before and after M&A
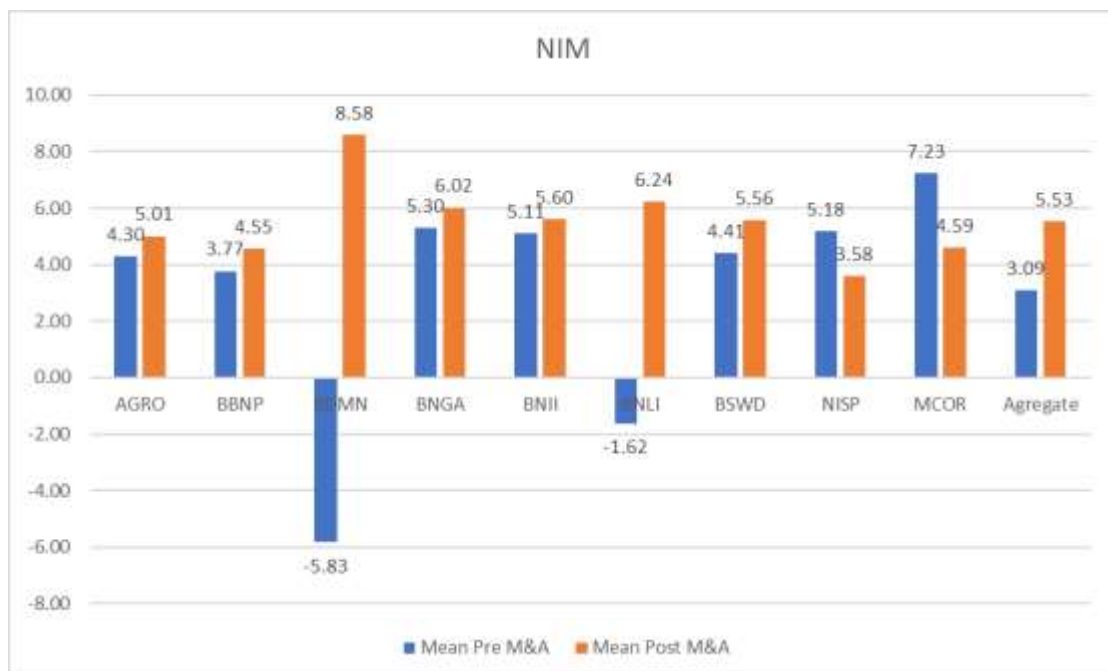

Figure 2.2. Average of Net Interest Margin (NIM) before and after M&A
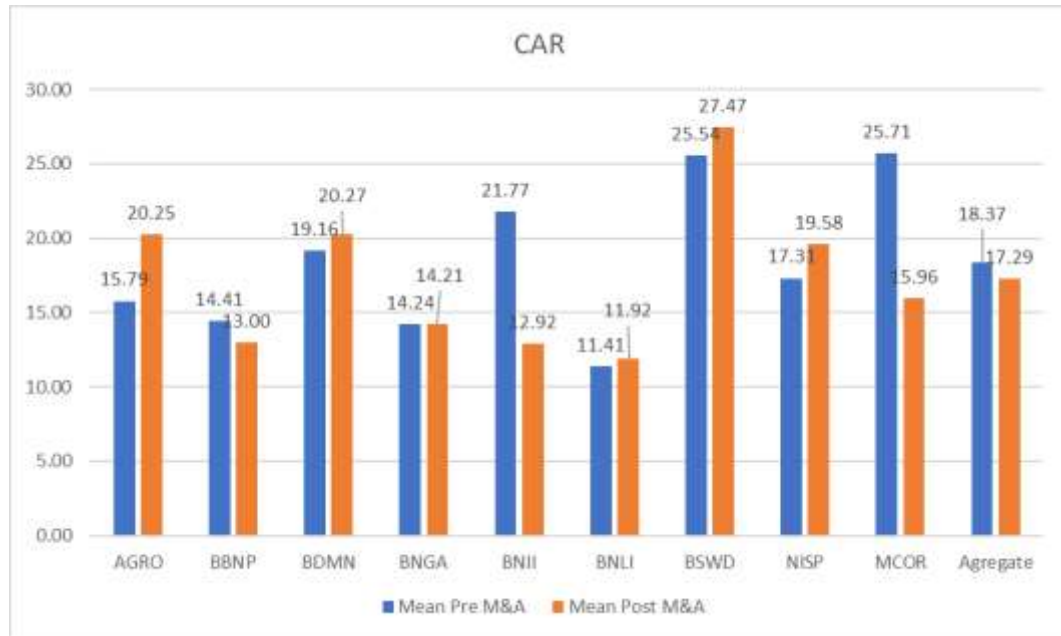
Appendix 3

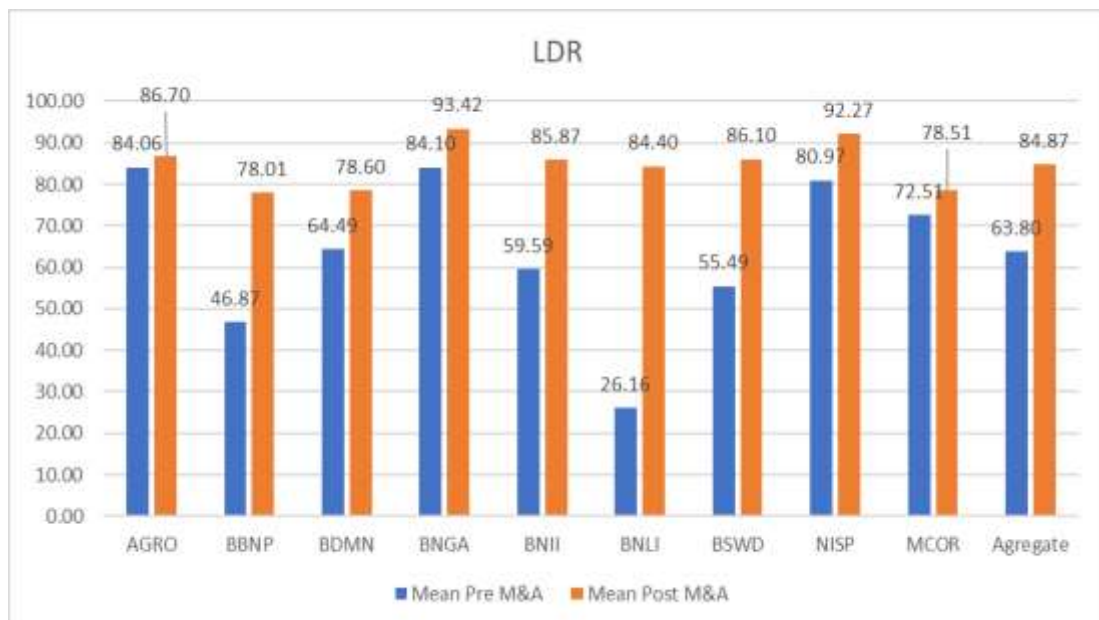**Figure 3.1 Average of Capital Adequacy Ratio (CAR) before and after M&A**

Figure 3.2. Average of Loan to Deposit Ratio (LDR) before and after M&A