# The Performance Analysis of Merger Banks due to Single Presence Policy in Indonesia with CAMEL ratio

Diah Pratiwi Ginting<sup>1</sup>, Tuntun Salamatun Zen<sup>2</sup>
School of Business and Management, Institute Technology Bandung
diah.pratiwi@sbm-itb.ac.id

<sup>2</sup> School of Business and Management, Institute Technology Bandung

tuntun@sbm-itb.ac.id

**Abstract:** Single presence policy is a policy, issued by Bank Indonesia in 2006, in order to limit the dominance of foreign investor and help Bank Indonesia to create an efficient supervision. Single presence policy states that ultimate shareholder, who has 25% of total shares and voting right, should be in one bank only. However, if the ultimate shareholder has already been in more than one bank, then Bank Indonesia provides two solutions, which are doing merger, or, establishing Bank Holding Company with Indonesia legal entity. This policy is required for all banks in Indonesia. However, in fact, there have been only few private banks which have implemented the policy, such as Bank CIMB Niaga and Bank UOB Indonesia. Therefore, the author has the objectives to figure out, whether there are significant differences of banking performance through the CAMEL ratios. The CAMEL ratio consists of capital indicator, asset ratio, management quality, earning, and liquidity ratio. In addition, the author also uses the paired t-test to figure out the significant differences toward the CAMEL ratios for pre and post-merger period. From the analysis that has been conducted, not all ratios from both banks represent great performance and have significant differences between pre and post-merger period. Firstly, for Bank CIMB Niaga, ratios such as gross NPL, op.cost to op.income, NIM, and LDR are different significantly between pre and postmerger period. Secondly, Bank UOB Indonesia has five out of seven ratios, which are different significantly, such as CAR, gross NPL, op.cost to op.income, ROA, and NIM. Furthermore, in this research, the author used quarterly data during four years period before and after merger. The result of this analysis can be used to (1) help Bank Indonesia evaluating the policy effectiveness toward the banking performance and (2) help the investors in analyzing and making decisions on investment toward the merger banks performance in Indonesia.

**Keywords:** Bank Indonesia, banking performance, CAMEL ratio, merger, single presence policy

## 1. Introduction

Since the financial crisis in 1997 in Indonesia, Bank Indonesia strived to create a competitive, efficient, robust, and sound banking system by reinforcing Indonesian banking capital. Therefore, to reinforce the banking capital, Bank Indonesia issued a government regulation number 29/1999, which stated that banks need to be encouraged to strengthen its capital by seeking sources of funding, either from domestic or outside the countries. In responding the regulation, then Bank Indonesia opened a big opportunity, for local and foreign investors, to buy the local banks' shares directly or through Indonesia Stock Exchange with 99% of the ownership.

After that regulation was issued, then the foreign ownership in banking sector became too dominant. Indonesia became one of the most attractive market for foreign investors because the price stocks were still low and it gave high returns. Consequently, the dominance of foreign ownerships made the target market of state and local banks declined gradually, took over micro credit, and the probability of capital flight risk became bigger. In responding these conditions and to create a stable financial system, then Bank Indonesia decided to issue a Single Presence Policy, which was arranged in Bank Indonesia Regulation number 8/16/PBI/2006. Single Presence Policy states that ultimate shareholder, who has at least 25% of total shares or have direct or indirect control of the bank even with less than 25% of total shares, should be in one bank only. However, if the ultimate shareholder has already been in more than one bank, then Bank Indonesia provides two solutions, which are doing a merger, or, establish a Bank Holding Company with Indonesia legal entity.

Single Presence Policy will help Bank Indonesia to have an efficient supervision as the banking amount will be declined and restrict the ultimate shareholder's power to dominate the local market. Then, gradually,

Indonesia banking become more competitive and robust. Furthermore, this policy is required for all banks, whether state or private banks. However, in the real condition, there have been only few private banks, which have implemented the policy. In other side, the state banks refused to apply the policy, as each of state banks has its own specialization, different organizational cultures, and act as development agent.

#### 1.1. Research Objectives

The objectives of this research are to analyze the performance of post-merger banks based on CAMEL ratios and to figure out, whether there are significant differences toward CAMEL ratios (CAR, NPL, operational cost to operational income, ROA, ROE, NIM, and LDR) before and after merger

#### 1.2. Research Limitation

This research was conducted by analyzing the quarter CAMEL ratios for period four years before and after merger. The author took two samples of private banks which have complied the single presence policy. The analysis was done by using the secondary data from annual and quarter report, Bank Indonesia website, and other information available that were published.

## 2. Review of Literature

#### 2.1. Bank Merger

Bank merger is classified as horizontal merger, which is done to make the Bank become more efficient and better diversified banks and more intense competition in local market. Before doing a bank merger, bank management should know whether the purchase price for the merger target bank is based on no managed reported earnings (Lin, 2005). According to Marcia Milon Cornett (2006), there are some motives why Bank decides to do a merger such as, to achieve revenue synergies from merging, to increase significantly operating performance, and produce greater performance gains.

#### 2.2. CAMEL Ratio

Based on Bank Indonesia regulation number 6/10/PBI/2004 states that CAMEL ratios are legal indicators to measure the banking performance in Indonesia. Furthermore, the ratios itself, consist of capital, asset, management, earning, and liquidity assessment. Firstly, capital assessment is done by using capital adequacy ratio (CAR). The higher the CAR indicates that the bank has better performance. Bank Indonesia has determined that the minimum rate of CAR is 12%. Secondly, gross NPL is used as the indicator of asset quality. The maximum rate of gross NPL is 5%

Thirdly, in measuring the management quality, the author use operating cost to operating income ratio, which referred to Isaac Otchere's journal ("Competitive and value effects of bank privatization in developed countries"). This journal states that the quantitative indicator in terms of management efficiency is operating cost to operating income ratio. Based on Bank Indonesia regulation in 2013, the assessment of this ratio depend on the amount of bank's core capital. As the samples of this research are classified in having the core capital's amount between IDR5 trillion and IDR30 trillion, the maximum rate of this ratio is 75%.

Then, there are three ratios, which are used to measure the earning performance, such as return on asset (ROA), return on equity (ROE), and net interest margin (NIM). For ROA, higher ROA will increase the bank's profit, because the bank has great position in managing its assets. Based on the Codification of Bank Indonesia 2012, the minimum rate of ROA is around 1.5%. For ROE, it will measure the return earned on the common stockholders' investment in the bank. Then, NIM is used to measure the ability of bank management in managing the earning assets to create net interest income. The higher net interest margin shows the banking performance is better because the bank management is able to create high interest income through the earning assets. Last ratio, LDR, is used to measure bank's ability to satisfy its short-term obligation as they come due. Based on Bank Indonesia regulation number 15/15/PBI/2013, bank with great performance in LDR should have the rate between or equal with 78% and 92% ( $78\% \le X \le 92\%$ ).

## 3. Research Methodology

In this research, the author use CAMEL ratios as the indicator for banking performance. The formula of each ratio is,

TABLE I: CAMEL Ratio

Number	Ratio	Formula					
1	CAR	(Mtier1 + Mtier2 + Mtier3) - Inclusion					
		Risk Weight Asset					
2	Gross NPL	Non performing credit total credit					
3	Op. Cost to Op. Income	Operating Expenses Operating Income x 100%					
4	ROA	Profit Before Taxes Average Total Asset					
5	ROE	$\frac{Profit\ After\ Tax}{Average\ Core\ Capital}x\ 100\%$					
6	NIM	Interest Income — interest expense Average Earning Asset x 100%					
7	LDR	$\frac{\textit{Credit Amount}}{\textit{Third Party Fund}} \times 100\%$					

Source: The Circular Letter of Bank Indonesia number 3/30/DPNP, December 14, 2001

## 3.1. Data Sampling

For this research, the author took two banks as the research sampling, which were Bank CIMB Niaga and Bank UOB Indonesia. The author took those two banks because from three banks, which have done the merger, only those two banks fulfilled the requirement of the research period. Bank CIMB Niaga is the merger of Bank Niaga and LippoBank in 2008, with the ultimate shareholder is the Khazanah *Nasional* Berhad. Then, Bank UOB Indonesia is the merger of Bank UOB Buana and Bank UOB Indonesia in 2010, with the ultimate shareholder is The UOB Limited Singapore.

## 3.2. Data Hypothesis

The hypothesis of this research is:

 $\mathbf{H}_0$ =There is no significant difference between the value of CAMEL ratios (CAR, gross NPL, op.cost to op.income, ROA, ROE, NIM, and LDR) before and after merger

 $\mathbf{H_{1}}$ = There is significant difference between the value of CAMEL ratios (CAR, gross NPL, op.cost to op.income, ROA, ROE, NIM, and LDR) before and after merger

#### 3.3. Paired T-Test

Basically, because the author wanted to figure out the significant differences between the value of CAMEL ratios before and after merger, the author used a paired sample T-Test. In this research, the author determined to use 0.05 as the level of statistical error. If the p-value (asymp. Sig 2 tailed) is less than 0.05, then  $H_0$  is rejected or indicates that there is significant difference between the value of each CAMEL ratios in pre and post-merger period.

# 4. Data Analysis

Before figuring out the significant differences of the CAMEL ratio between pre and post-merger period, first of all the author should calculate the CAMEL ratio by using the quarterly data. For Bank CIMB Niaga, the pre and post-merger period began from 2004 - 2007, and 2009 - 2012, respectively. Then, for Bank UOB Indonesia,

the pre-merger and post-merger period began from 2006–2009 and 2011–2014, respectively. Here are the result of ratios calculation:

TABLE II: CAMEL ratios of Bank CIMB Niaga

CAR	CAR	NPL	NPL	OCOI	OCOI	ROA	ROA	ROE	ROE	NIM	NIM	LDR	LDR
pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
13.63	16.34	3.80	2.83	60.40	86.16	3.77	1.44	46.59	10.72	6.12	5.74	73.66	85.19
11.61	15.29	5.79	2.66	67.58	82.43	3.29	1.91	39.63	14.45	5.80	6.09	78.09	87.06
11.01	15.03	4.93	2.77	68.82	81.94	3.00	2.11	37.30	15.93	5.76	6.38	83.67	90.63
10.29	13.57	3.18	3.05	69.31	84.66	2.83	2.09	41.46	16.20	5.36	6.31	85.35	95.59
11.78	12.75	3.35	3.08	70.98	77.97	2.97	2.64	30.39	19.93	5.66	6.57	90.47	89.01
10.37	12.13	5.99	2.68	74.78	77.93	2.70	2.51	28.68	21.25	5.49	6.59	93.01	85.90
17.75	12.58	6.03	2.70	76.06	78.22	2.38	2.58	22.41	22.07	5.26	6.46	89.82	89.65
17.24	13.27	5.23	2.55	77.42	77.16	2.04	2.62	19.36	23.20	4.98	6.32	85.32	88.50
18.24	14.38	4.93	2.82	80.03	75.64	2.42	2.57	18.26	22.00	5.55	5.81	86.62	90.15
17.30	13.66	5.20	2.73	78.45	76.31	2.35	2.78	18.19	21.75	5.72	5.74	90.86	93.47
16.56	13.52	3.61	2.69	77.64	76.03	2.32	2.82	18.37	21.46	5.81	5.72	88.30	94.79
16.65	13.09	3.47	2.72	76.05	76.32	2.24	2.74	16.35	19.73	5.47	5.75	84.73	94.16
18.45	15.51	3.99	2.78	74.29	74.85	2.50	2.88	17.87	20.66	5.99	5.98	86.86	96.24
17.77	15.08	4.18	2.61	72.04	72.63	2.53	3.03	18.03	21.76	6.10	6.15	94.84	97.49
17.03	15.46	4.70	2.53	72.57	71.76	2.29	3.06	17.48	22.31	5.92	6.19	94.32	91.26
15.43	15.08	3.79	2.43	72.60	71.35	2.16	3.07	17.03	22.59	5.36	5.73	92.48	92.76

Source: Microsoft Excel calculation

TABLE III: CAMEL ratios of Bank UOB Indonesia

CAR	CAR	NPL	NPL	OCOI	OCOI	ROA	ROA	ROE	ROE	NIM	NIM	LDR	LDR
pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
22.56	21.11	2.36	2.45	70.20	76.59	3.52	2.37	19.85	11.17	7.09	5.71	75.33	92.31
28.44	19.27	4.71	2.02	72.86	76.23	3.34	2.48	16.17	11.79	7.04	5.57	78.84	101.68
29.53	18.26	4.25	1.50	71.32	76.73	3.59	2.35	16.68	11.87	7.34	5.24	82.22	94.02
30.36	17.61	4.39	1.53	71.44	77.55	3.46	2.23	15.22	11.45	7.51	5.14	82.35	91.73
31.76	17.24	3.78	1.50	65.81	75.54	3.81	2.69	15.74	16.09	7.55	5.27	85.66	86.96
29.19	16.86	3.59	1.48	66.66	73.53	3.68	2.69	15.23	16.55	7.20	5.21	92.43	92.43
28.36	16.79	3.55	1.52	69.36	73.41	3.63	2.70	15.00	16.51	6.99	5.17	93.59	93.95
27.24	16.77	3.34	1.81	71.41	74.61	3.39	2.62	13.19	15.76	6.89	5.07	94.61	96.65
27.36	17.40	3.09	1.71	74.78	75.74	2.47	2.36	8.90	14.91	6.97	4.56	99.71	91.49
25.99	15.68	2.87	2.38	80.74	79.17	1.91	2.14	6.37	12.80	6.87	4.44	98.05	96.90
25.00	14.98	2.51	2.23	79.96	78.84	1.91	2.32	7.04	15.36	6.98	4.57	100.73	94.16
24.86	14.94	2.51	1.63	76.54	78.45	2.39	2.34	8.88	14.27	7.11	4.55	91.01	91.16
25.61	15.81	2.80	1.76	78.44	86.52	3.21	1.34	14.93	7.40	7.58	4.38	86.60	96.22
24.36	17.12	2.80	2.60	72.37	91.62	3.08	1.06	13.46	5.56	7.59	4.32	88.71	93.88
23.74	16.52	2.66	3.51	75.49	92.05	2.72	0.96	11.38	5.64	7.61	4.27	92.42	93.69
23.49	15.72	2.58	3.72	73.84	90.59	2.81	1.22	11.60	7.54	9.09	4.21	93.49	89.33

Source: Microsoft Excel calculation

All components of each ratio are derived from Bank Indonesia website in quarterly period. Then, those quarterly ratios are used in SPSS tools (paired T-test) to figure out, which ratio has significant differences after merger.

#### 4.1. Paired T-Test results

#### 4.1.1. Bank CIMB Niaga

Based on table IV, there are four ratios, where  $H_0$  is rejected, because the p-values are less than 0.05. Those ratios are gross NPL, op. cost to op. income, NIM, and LDR. These indicates that those ratios are different significantly between the pre and post-merger period. Otherwise, ratios, which are not different significantly, are CAR, ROA, ROE, due to the p-values (sig.value) of those three ratios are more than 0.05.

TABLE IV: Paired T-Test Result of CIMB Niaga

		Mean	Std.Deviation	T-value	P-value	
CAR	Pre	15.07	3.06	-1.136	0.274	
	Post	14.17	1.25	-1.130	0.274	
Gross NPL	Pre	4.51	0.96	-6.853	0.000	
	Post	2.73	0.17	-0.055	0.000	
Op.Cost to	Pre	73.06	4.95	2.154	0.048	
Op.Income	Post	77.59	4.33	2.134	0.040	
ROA	Pre	2.61	0.46	-0.267	0.793	
	Post	2.55	0.45	-0.207	0.773	
ROE	Pre	25.46	10.36	-1.673	0.115	
	Post	19.75	3.54	1.073	0.113	
NIM	Pre	5.65	0.32	3.505	0.003	
	Post	6.10	0.32	3.303	0.303	
LDR	Pre	87.40	5.74	2.953	0.010	
	Post	91.37	3.74	2.755	0.510	

Source: Data Results from SPSS process

Table IV shows that three out of four ratios, which significantly different, are classified as great performance, based on Bank Indonesia requirement. Those ratios are gross NPL, NIM and LDR. Firstly, the average rate of gross NPL in post-merger period declined from 4.51% to 2.73%. This shows that since merger, Bank CIMB Niaga was able to depress the non-performing credit, as the total credit given increased. Furthermore, it also shows that Bank CIMB Niaga has better asset quality and able to select its debtor properly.

Secondly, the average NIM in post-merger increased by 0.45%. The small increase of NIM indicated that Bank CIMB Niaga was not able to create higher interest income and maintain its interest expense, through the increase amount of earning asset. Thirdly, though the average rate of LDR increased to 91.37%, the rate was still indicated as great performance, because it was less than 92% (Bank Indonesia requirement). This indicated that Bank CIMB Niaga faced higher liquidity risk, as it had less liquid asset to meet short-term liabilities and credit demands. However, Bank CIMB Niaga was able to distribute its credit optimally because based on its report, the amount of banking's profit kept increasing.

Last ratio, which shows not in great performance is op.cost to op.income. As Bank CIMB Niaga has the core capital between IDR5 trillion and IDR30 trillion, the maximum rate of this ratio is 75%. However, based on table above, the average rate in post-merger is 77.59%. This indicated that Bank CIMB Niaga was less efficient in controlling its operating expense during post-merger period.

#### 4.1.2. Bank UOB Indonesia

Based on table V, there are five ratios, where  $H_0$  is rejected. Those ratios are CAR, gross NPL, op. cost to op. income, ROA, and NIM. These indicates that those ratios are different significantly between the pre and post-merger period. Otherwise, ratios, which are not different significantly, are ROE and LDR. Table V shows that three out of five ratios, which significantly different, are classified in great performance. Those ratios are CAR, gross NPL, and ROA.

Firstly, though average CAR of Bank UOB Indonesia in post-merger declined to 17%, it was still indicated in great performance because it was more than 12% (Bank Indonesia requirement). Though the risk weighted asset increased in big amount, especially the asset for credit risk, Bank UOB Indonesia still had great performance in its capital measurement. Secondly, in post-merger, the average rate of gross NPL declined to 2.08%. This showed that Bank UOB Indonesia had great performance in managing its asset quality and able to select its debtor properly.

Thirdly, though the average ROA in post-merger decreased significantly to 2.12%, it was still categorized in great performance, because it was more than 1.5% (Bank Indonesia requirement). However, this decline showed that Bank UOB Indonesia was not able to create higher profit, though total asset increasing. The smaller amount of profit before tax was also affected by higher growth of operating expense. Then, the rate of Bank UOB Indonesia's NIM also decreased significantly. Though earning asset increased during post-merger period, Bank UOB Indonesia was not able to create higher net interest income. Last ratio, which was op.cost to op.income, also increased significantly to 79.82%. This average rate was indicated not in great performance, because it was more than 75% (Bank Indonesia requirement). This showed that the bank management was less efficient in managing its operating expense, especially the interest expense (based on the quarterly report).

Mean **Std.Deviation** T-value P-value CAR 2.70 Pre 26.74 -13.185 0.000 17.00 Post 1.59 Gross NPL 3.24 0.74 Pre -3.645 0.002 Post 2.08 0.70 73.20 Op.Cost to Pre 4.33 4.243 0.001 Op.Income 79.82 6.50 Post ROA 3.06 0.62 Pre -5.124 0.000 2.12 0.61 **Post** ROE Pre 13.10 3.77 -0.667 0.515 12.17 3.84 Post NIM Pre 7.34 0.54 0.000 -11.495 Post 4.86 0.49 LDR Pre 89.73 7.40 1.806 0.091 93.54 3.39 Post

TABLE V: Paired T-Test Result of Bank UOB Indonesia

Source: Data Results from SPSS process

## 4.2. Results Similarities

Based on the result above, Bank CIMB Niaga and Bank UOB Indonesia have shown three similarities, which are,

- Both banks show that their ROE are not different significantly after four years merger. This indicate that the return, which is earned by the shareholder from each bank, do not decline significantly after merger. However, this decline of ROE represent that bank management from each bank is not able to create higher return for their shareholders, though the core capital increase.
- Both banks indicate that the operating cost to operating income has increased significantly. This is because based on Indonesia Banking Statistic, mostly Indonesia banking has given its annual interest rate of deposit more than 7.75% (the maximum rate of Indonesia Deposit Insurance Corporation). This definitely create high cost in the operational expense. In other side, the operational cost of Bank CIMB Niaga, is also affected by higher growth of labor and general administrative cost, which are 48.86% and 57.29%, respectively. Then, for Bank UOB Indonesia, the operational cost is also affected by 124.06% of impairment losses on financial asset's growth and 43.19% of general-administrative cost. The increase of op.cost to op.income show that both banks are less efficient in managing its operating expense since merger.
- Both banks show that the gross NPL decrease significantly after merger. Though the average amount of corporate and microcredit, and total credit's amount have increased, both banks are succeeded in depressing its non-performing loan. Overall, this represent that both banks are able to maintain its non-performing credit and select its debtor properly.

#### 5. Conclusion

Since Bank Indonesia issued single presence policy in 2006, there has been only three private banks in Indonesia, which merged to comply the policy. Furthermore, based on the result above, it shows that not all ratios from each bank are different significantly. Firstly, for Bank CIMB Niaga, there were only four out of seven ratios, which were different significantly, with three ratios showed great performance. In other side, Bank UOB Indonesia showed that there were five out of seven ratios, which were different significantly, but only three ratios were in great-performance.

There has been three similarities of the post-merger performance toward both banks, which are the ROE of both banks are not different significantly, the operating cost to operating income ratio has increased significantly, and the gross NPL do not decrease significantly. Overall, not all banks show great performance after merger. This difference is caused by a different preparation from each bank in maintaining the bank management while doing merger. Furthermore, the author also figured out that the implementation of single presence policy in Indonesia is not really effective, because since the policy was issued in 2008 until now, the foreign ultimate shareholders still have strong power in controlling the bank management and the number of foreign ultimate shareholders, still dominate Indonesia banking.

## 6. References

- [1] Armanto, R. S. (2015, January 5th). *Bank Indonesia*. Retrieved from Bank Indonesia: http://www.bi.go.id/id/publikasi/jurnal-ekonomi/Documents/RatnaSriWidyastutiBoediArmanto.pdf
- [2] Bank Indonesia. (2014, September 04). Retrieved from Bank Indonesia Regulation: http://www.bi.go.id/id/peraturan/perbankan/Pages/se\_150213.aspx
- [3] Bank Indonesia. (2015, January 6). Retrieved from Bank Indonesia: http://www.bi.go.id/id/peraturan/perbankan/Pages/pbi\_151213.aspx
- [4] Colander. (2006). Economic 6th Edition. New York: McGraw Hill.
- [5] Daly, T. M. (2015, January 5th). *Bank Indonesia*. Retrieved from Bank Indonesia: http://www.bi.go.id/id/publikasi/jurnal-ekonomi/Documents/e7aeb1efc18d4f08a276c93b2f1f3365TriMulyaningsihProfAnne.pdf
- [6] Gitman, L., & Zutter, C. J. (2012). Principles of Managerial Finance 13th edition. England: Pearson.
- [7] Grier, W. (2014, September 15). Euromoney. Retrieved from Euromoney Institution Investor.
- [8] Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2007). Multivariate Data Analysis. Prentice Hall.
- [9] Karyadi, F. (2013). Indonesia's Single Presence Policy. *Proquest*, 29-47.
- [10] Levine, D. M., Krehbiel, T. C., & Berenson, M. L. (2010). Business Statistic. State College: Pearson.
- [11] Lin, P. (2005). An Empirical Analysis of Bank Mergers and Cost Efficiency. *Springer*, 197-206. http://dx.doi.org/10.1007/s11187-003-6451-y
- [12] Martin, J. D. (2001). The principle of Financial Management. In *The principle of Financial Management*. Jakarta: Salemba Empat.
- [13] Melyani, Y. (2000). Bank Rating as a Tool for Bank Indonesia in Ultimate Commercial Banks. Jakarta: Universitas Jayabaya.
- [14] Nurfitri, M. (2010). The Effect of Privatization toward the performance of BANK XYZ based on CAMEL, EVA, MVA, and SVA Method from 1991-2009. *Thesis of Magister Management of University of Indonesia*.
- [15] Otchere, I. (2009). Competitive and value effects of bank privatization in developed countries. Sprott School of Business, Carleton University, Canada. http://dx.doi.org/10.1016/j.jbankfin.2009.06.014
- [16] Pandia, F. (2012). Fund Management and Bank Soundness. Jakarta: Rineka Cipta.
- [17] Prasnanugraha, P. (2007). The Analysis of Financial Ratios Effect toward the Performance of Commercial Banks in Indonesia. Semarang.
- [18] Siahaan, M. R. (2013). The Analysis of Banking Performance Before and After Initial Public Offering by Using CAMEL Ratios, with Go-Public periods from 2007 2010. Jakarta: University of Indonesia.
- [19] Sukarno, K. W., & Syaichu, M. (2006). The Analysis of factors which affecting the performance of commercial banks in Indonesia. *Journal of management and organization studies vol.3 number.* 2, 46.

- [20] W.Liliefors, H. (1967). On the Kolmogorov-Smirnov Test for Normality with Mean and Variance. *Journal of The American Statistical Association*, 399-402. http://dx.doi.org/10.1080/01621459.1967.10482916
- [21] Weston, J. F., & Brigham, E. F. (1994). The Principle of Financial Management, translation by Al Fonsus Sirait. Jakarta: Erlangga.
- [22] Widyastuti, R. S., & Armanto, B. (2013). Banking Industry Competition in Indonesia. *Economic Journal Bank Indonesia*.