A PANEL DATA ANALYSIS OF PROFITABILITY DETERMINANTS OF BUKU 1 AND BUKU 2 BANKING SECTORS

ANALISA DATA PANEL PADA FAKTOR-FAKTOR YANG MEMPENGARUHI PROFITABILITAS SEKTOR BANK BUKU 1 DAN BUKU 2

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Abstract: In confront with banks and its higher core capital, the profitability of banks categorized in BUKU 1 and BUKU 2 Banking Sectors exhibit a downward trend. This study aims to investigate what actually are the determinants of this downward trend over the period of 2010-2017 using 20 banks categorized in BUKU 1 and BUKU 2 Banking Sector as the sample. A panel data regression with fixed effects is used in this analysis. Based on the empirical results, the banks suffer from low quality of loans distribution and do not manage to extract considerable profits from the utilization of their high capital. Despite low profits from the core banking activities bank includes relied benefit from their high interest margin. In accordance with the hypotheses, the Operating Expenses to Operating Income has a negative significant impact to ROA. Concisely, Net Interest Margin and Operating Expenses to Operating Income have significant negative impacts to ROA while Capital Adequacy Ratio, Non-Performing Loan and Loan to Deposit Ratio have insignificant negative impacts to ROA. Therefore, bank includes should pay more attention to their capital utilization, reduce cost and keep the value of all ratios as what has been set by BI.

Keywords: banking, profitability, buku 1, buku 2

Abstrak: Bertentangan dengan bank bermodal inti lebih tinggi, profitabilitas dari bank kategori BUKU 1 dan BUKU 2 menunjukan tren menurun. Penelitian ini bertujuan untuk menyelidiki apa sebenarnya faktor-faktor yang menyebabkan penurunan tren dalam periode tahun 2010-2017 dengan menggunakan 20 bank yang termasuk dalam kategori BUKU 1 dan BUKU 2 sebagai sampel. Regresi panel data dengan metode fixed effects digunakan dalam analisa ini. Berdasarkan hasil empiris, bank mengalami penurunan kualitas penyaluran kredit dan tidak memperoleh keuntungan dari pemanfaatan modal mereka yang tinggi. Meskipun mendapatkan keuntungan yang rendah dari kegiatan intinya, keuntungan dari bank yang menjadi sampel bergantung pada tingginya marjin bunga mereka. Sesuai dengan hipotesis, Biaya Operasional Pendapatan Operasional mempunyai pengaruh negatif dan signifikan signifikan terhadap ROA. Secara singkat, marjin bunga bersih (NIM) dan biaya operasional pendapatan operasional (BOPO) memiliki pengaruh yang signifikan dengan hubungan yang negatif terhadap ROA sementara rasio kecukupan modal (CAR), kredit bermasalah (NPL) dan rasio penyaluran kredit (LDR) memiliki dampak yang negatif dan tidak signifikan. Karenanya, bank yang termasuk sampel harus lebih memerhatikan pemanfaatan modal, mengurangi biaya dan menjaga semua rasio sesuai yang ditentukan BI.

Kata Kunci: perbankan, profitabilitas, buku 1, buku 2

INTRODUCTION

Research Background

Banking sector is a strong platform to support and sustain economic growth of a country. Bank plays an important role in the financial life of a business as it connects surplus and deficit economic agents. Banks accept deposit, make loans and derive a profit from the difference in the interest rates paid, charged to depositors and borrowers respectively. The process performed by taking in funds from a depositor and then lending them out to a borrower is known as financial intermediation which is the fundamental function of bank.

Most of the empirical studies conclude that development of the financial sector accelerates economic growth. According to Petkovski and Kjosevski (2014) there are four functions of banks that can influence saving and investment decisions and hence economic growth which are mobilizing savings, diversifying risk, allocating savings and monitoring the allocations of managers. Banks also facilitate the development of saving plans and are instruments of the government's monetary strategy. The Central Banks can support economic growth best by keeping inflation low and stable through conducting a predictable and credible monetary policy. The primary function of Indonesian banking is as the collector and distributor of public funds, which aim to support the implementation of national building in order to enhance the equalization of the development and its results, economic growth and national stability, towards the improvement of individual's living standard.

A bank's profitability can be viewed as a measure of success and good management. According to Athanasoglou, Brissmis and Delis (2008) the profitability of banking sector not only contributes to the economic growth and stability of a financial system, but also enables the economies to endure the external factors and fight against negative financial shocks. Empirical studies have shown that a profitable banking sector is better able to deal with negative shocks and therefore contribute to financial stability (Olweny and Sipho, 2011; Flamini, McDonald and Schumacher, 2009). Therefore, it is crucial to understand profitability determinants.

In December 27, 2012 Bank Indonesia has issued Regulation No. 14/26/PBI/2012 concerning business activity and network to be based on the core capital of the bank in order to boost the resilience and competitiveness of the national banking industry. The Regulation valid on January 2, 2013. According to the regulation, commercial banks are categorized into four business groups known as BUKU (Bank Umum Kelompok Usaha or Commercial Bank Business Group) 1, 2, 3 and 4. BUKU 1 is for banks with the lowest core capital as well as the most limited products coverages and business activities. In contrast BUKU 4 is reserved for banks with the highest core capital as well as the broadest product coverages and business activites. BUKU 1: Core Capital is less than Rp 1 Trillion followed by, BUKU 2 with its Core Capital of Rp 1 – 5 Trillion. BUKU 3 Core Capital is Rp 5 – 30 Trillion and finally, BUKU 4: Core Capital is Rp 30 Trillion and higher.

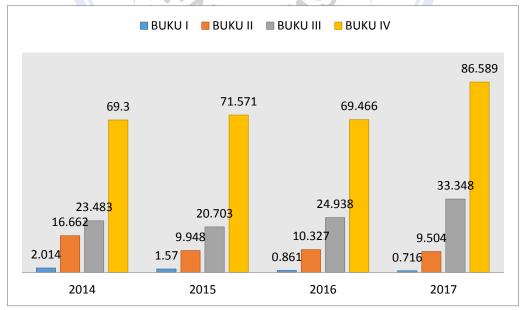


Figure 1. Bank Profit Growth after Estimation of Tax (in Billion)

Source: OJK (Processed), 2017

Most of the empirical studies only focus on investigates commercial banks includes in these 4 categories of banks as a whole or banks categorized in BUKU 3 and BUKU 4 (2 categories of banks with the highest core capital) which is obviously have rapid positive trend on its profitability growth as seen in Figure 1. In confront with those 2 banking sectors with higher core capital, there is significant downward trend of profitability growth in BUKU 1 and a slight fall for BUKU 2 in course of years from 2014 to 2015.

The aim of this research is to uncover the unseen vital problems that barely noticed by the other researchers and to find a solution for the profitability degradation of BUKU 1 and BUKU 2 Banking Sectors by using five financial ratio as reported in one of Indonesia's online news are include the determinants of the downward trend of those two groups which are Capital Adequacy Ratio (CAR), Non-Performing Loan (NPL), Net Interest Margin (NIM), Loan to Deposit Ratio (LDR), and Operating Expenses to Operating Income (BOPO). In order to verify the nexus between these five determinants and ROA as the measure of profitability, this research is expected to give solution to BUKU 1 and BUKU 2 Banking Sector on how its financial ratios affect the downward of their profitability trend and how to well-manage the financial ratios so that the banks can fully develop its performance. Brigham and Houston (2010) stated that good financial management is crucial to the economic health of the nation, hence the world.

Research Objectives

Based on the research questions, the purpose of this research is to analyze the influence of Capital Adequacy Ratio, Net Interest Margin, Non-performing Loan, Loan to Deposit Ratio and Operating Expenses to Operating Income towards Return on Asset of Indonesian commercial banks categorized in BUKU 1 and BUKU 2 Banking Sectors.

THEORETICAL REVIEW

Financial Management

Financial Management means planning, organizing, directing and controlling the financial activities such as procurement and utilization of funds of the enterprise. Oyetade (2000) stated financial management as the managerial activities which is concerned with the planning and controlling of the firm's financial resources and related activities. More specifically, Brigham and Houston (2010) in their book of Fundamental of Financial Management, explained that financial management also being called as corporate finance, focuses on decisions relating to how much and what types of assets to acquire, how to raise the capital needed to buy assets and how to run the firm so as to maximize its value.

Bank

Central Bank of Indonesia (BI) stated the definition of banks which are business entities that collect public funds in the form of deposits and distribute them to the society in the form of loans/credits and other forms in order to improve the people's living standard.

Return on Assets

According to Bank Indonesia, Return on Assets (ROA) ratio is profit before tax divided by average total assets. ROA ratio is the most common measure of profitability for both the banking sector and the non-banking. ROA is an indicator of operational performance and efficiency by presenting the return on assets (Pasiouras and Kosmidou, 2007). In measuring the financial soundness of banks, according to Bank Indonesia Regulation No. 6/10/PBI/2004 dated April, 12th 2004 BI set the standard of ROA to be more than 1.5% (BI, 2004).

Capital Adequacy Ratio

Setiawan and Hermanto stated the definition of Capital Adequacy Ratio as the amount of capital that can effectively discharge the primary capital function of preventing bank failure by absorbing losses. CAR will provide the ultimate protection against insolvency and liquidation arising from the risk in banking business. BI set the minimum acceptable *ratio* which is should be more than 8%. Maintaining an acceptable CAR protects bank depositors and the financial system as a whole.

Non-Performing Loan

Non-Performing Loan is loan on which the borrower is not making interest payments or repaying any principal. According to Bank Indonesia, NPL are loans classified as substandard, doubtful and loss. Bank Indonesia has set the standard of NPL should be less than 5% (BI, 2004).

Net Interest Margin

Net interest margin (NIM) is a measure of the difference between the interest income generated by banks or other financial institutions and the amount of interest paid out to their lenders. According to Sarita, Shahabi and Zandi (2012), net interest margin (NIM) is the measurement that defines as net interest income divided by total earning asset. Bank Indonesia has set the minimum standard of more than 7% (BI, 2004).

Loan to Deposit Ratio

Loan to Deposit Ratio is a ratio used in determining the amount of loans that a bank has out versus the amount of current deposits on hand at that same time. LDR indicates in what extent the bank's ability in repaying the withdrawal of funds by depositors by relying on the credit given as the source of liquidity (Soares and Yunanto, 2018). A bank is counted healthy if the LDR of its bank is among 85% - 110% (BI, 2004).

Operating Expenses to Operating Income

The Operating Expenses to Operating Income or operating expense ratio (OER) is a measure of what it costs to operate a piece of property compared to the income that the property brings in. This ratio is used to measure the level of efficiency and ability of banks in conducting their operations (Soares and Yunanto, 2018). The effective and efficient of bank's operation cost should have less than 50% of its BOPO (BI, 2004).

Previous Research

Ćurak, Poposk and Pepur (2012) examined internal and external determinants on Macedonian banking sector. Credit risk has negative impacts to ROA but statistically insignificant. Operating expense management has negative impacts to ROA. Solvency risk and liquidity risk are significant negative affect ROA. GDP growth and concentration have positive and significant impact to ROA.

El-Kassem (2017) found that total capital ratio positively and significantly affects ROA, cost to income ratio negatively and significantly impacts ROA. NPL and variation in Loan to Assets Ratio significantly and negatively affect ROA.

Soares and Yunanto (2018) found that NPL has positive and insignificant effect, CAR has no effect, LDR has negative and significant, operating expense ratio has negative and significant effect and NIM has positive and significant effect to ROA.

Conceptual Framework

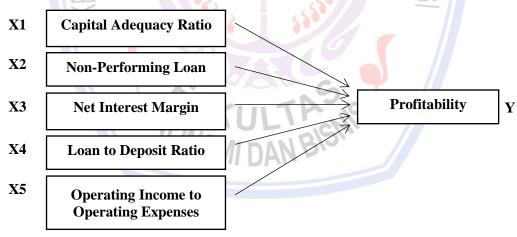


Figure 2. Conceptual Framework

Source: Data Processed, 2018

Hypothesis

H1: CAR affects ROA of Bank Category BUKU 1 and BUKU 2 for the period 2011 – 2017.

H2: NPL affects ROA of Bank Category BUKU 1 and BUKU 2 for the period 2011 – 2017.

H3: NIM affects ROA of Bank Category BUKU 1 and BUKU 2 for the period 2011 – 2017.

H4: LDR affects ROA of Bank Category BUKU 1 and BUKU 2 for the period 2011 – 2017.

H5: BOPO affects ROA of Bank Category BUKU 1 and BUKU 2 for the period 2011 – 2017.

RESEARCH METHOD

Research Approach

This is a quantitative research and data are analyzed with explanatory approach.

Population and sample

The population of this research is Indonesian commercial banks. The sample is 6 banks from BUKU 1 and 14 from BUKU 2 banking sectors. Hence, there are 20 banks as the sample.

Sampling Technique

This research used convenience sample which is a type of non-probability sampling where members of the target population that meet certain practical criteria, such as easy accessibility, geographical proximity, availability at a given time, or the willingness to participate are included for the purpose of the study (Etikan, Musa and Alkassim, 2016).

Variables and Operational Definition

Table 1. Variables and Operational Definition

Variables		Measurement	Source of Data					
Dependent Variable	es	TEKNOLOGI DAN						
ROA Ratio	Y	Profit Before Tax Total Assets	Bank Annual Report					
Independent Variables								
CAR	X1	Capital	Bank Annual Report					
	三	Risk Weighted Assets Ratio	5 1					
NPL	$$ $$ $$ $$ $$ $$ $$ $$ $$	Nonperforming Loan Total Loan	Bank Annual Report					
NIM	X3	Interest Income – Interest Expense Earning Asset	Bank Annual Report					
LDR	X4	Total Loan	Bank Annual Report					
		Total Deposit						
ВОРО	X5	Operating Expenses	Bank Annual Report					
		Operating Income						

Source: Data Processed, 2018

Technical Analysis

Panel Data Regression model for this research:

 $ROAit = \alpha + \beta 1 CARit + \beta 2NPLit + \beta 3NIMit + \beta 4LDRit + \beta 5BOPOit + \mu i + \varepsilon it$

RESULT AND DISCUSSION

Descriptive Statistics

Table 2. Descriptive Statistics

	N	Range		Maximum Statistic	Mean		Std. Deviation	Variance
	Statistic	Statistic	tatistic Statistic		Statistic	Std. Error	Statistic	Statistic
ROA	140	20.73	-11.15	9.58	.9747	.16467	1.94846	3.796
CAR	140	79.47	8.02	87.49	20.8561	.99875	11.81739	139.651
NIM	140	15.42	1.22	16.64	4.9349	.15713	1.85916	3.456
NPL	140	4.96	.00	4.96	1.7953	.12032	1.42362	2.027
LDR	140	69.84	43.46	113.30	81.0334	1.10409	13.06372	170.661
BOPO	140	179.16	56.04	235.20	95.6050	1.79122	21.19405	449.188
Valid N	140							
(listwise)								

Source: Data Processed, 2018

Descriptive statistic can be used in order to see the characteristic of the data distribution. There are 140 total observations. The ROA of Indonesian commercial banks categorized in BUKU 1 and BUKU 2 on average is at 0.97% with 1.94% standard deviation.

Fixed Effect or Least Square Dummy Variable (LSDV)

Table 3. Estimates of Fixed Effects

Parameter	Estimate/Coefficient	Std. Error	df	T	Sig.
Intercept	9.783160	2.130947	114.000	4.591	.000
CAR	000610	.016020	114	038	.970
NIM	404483	.104153	114.000	-3.884	.000
NPL	227892	.141789	114	-1.607	.111
LDR	008178	.017295	114.000	473	.637
BOPO	053601	.008923	114	-6.007	.000

Source: Data Processed, 2018

Based from the results, the equation of ROA is:

ROA (%) = 9.783160 - 0.000610CAR - 0.404483NIM - 0.227892NPL - 0.008178LDR - 0.053601BOPO +

Discussion

Banking industry is a very important sector because the development of finance, and particularly the banking system, promotes economic growth (Lipunga, 2014). In order to support and sustain the economic growth of a country, it is important for banks to perform well through effective and efficient operations.

Profitability is a primary measure of evaluating the overall efficiency and success of the business. According to Sivathaasan et al. (2013), profitability analysis, classifies, measures and assesses the performance of the company in terms of the profits it earns either in relation to the shareholders' investment or capital employed in the business or in relation to sales, profit, (or loss). Profitability ratios measure the firm's ability to generate profits and central investment to security analysis, shareholders, and investors (Nishanthini and Nimalathasan, 2013).

This research examines the determinants of commercial bank profitability in Indonesia based on Commercial Bank Group of Business Activities (BUKU). The samples used in this research are banks categorized in BUKU 1 and BUKU 2 Banking Sector which are commercial banks with the lowest core capital in the value of less than 1 Trillion IDR for BUKU 1 and 1-5 Trillion IDR for BUKU 2.

By using Fixed Effects or Least Square Dummy Variable analysis in Panel Data Regression, we analyze the influences of Capital Adequacy Ratio, Net Interest Margin, Non-Performing Loan, Loan to Deposit Ratio and Operating Expenses to Operating Income to Profitability measured by ROA. According to Torres (2007), fixed effects explore the relationship between predictor and outcome variables within an entity (country, person, company, etc.).

Capital Adequacy Ratio

Based on the table's results, it can be seen that there is a negative relationship between CAR and ROA in confront with the hypothesis. On the table's result, the coefficient of CAR is -0.000610. This can be interpreted as for every increase by 1% in CAR will decrease ROA by 0.000610%. However this variable is considered as insignificant because ROA has significance level of 97% which is too far beyond the 5% significance level of tolerance. This result in accordance with the study of Osborne, Fuertes and Milne (2013) that found bank with higher capital than their target capital demonstrated a negative effect towards profitability. According to Harahap (2018), the negative impact of CAR to ROA can be caused by the large amount of capital held by banks that is not managed effectively and placed in investments that generate profits not be able to contribute to the level of profitability of the banking sector concerned. In addition, due to the existence of Bank Indonesia regulations requiring a minimum CAR of 8% which made the banks always tried to keep the CAR owned in accordance with applicable regulations (Soares and Yunanto, 2018).

Net Interest Margin

NIM has a significant impact on ROA however based on the result expected, it turns out otherwise with negative relation with ROA. Net Interest Margin (NIM) is a measure of the difference between the interest income generated by banks and the amount of interest paid out to their lenders. NIM is an earning aspect ratio that shows bank management capability in managing its productive assets to generate net interest income (Winarso and Salim, 2017). As seen in the result table, the significance level of NIM is 0% which is below 5% of significance level of tolerance. Based on the estimation table we can see that the coefficient of NIM is -0.404483 meaning in every increase by 1% in NIM will reduce 0.404483% of ROA. The null hypotheses rejected since there is significant relationship between NIM and ROA. This negative significant sign was caused by insufficient amount of interest income generated by two categories of banks included. The value of Net Interest Margin (NIM) in banks included is 4.9349 which below the standard meaning the banks included had low performance in generating interest income hence caused significant negative impact of NIM to ROA.

Non-Performing Loan

Banks derive most of their income from loans. Because of the form of loans, banks are vulnerable in default by monitoring the NPL. According to Soares and Yunanto (2018), Non-Performing Loan (NPL) is a condition in which the customer is unable to pay part or all of his/her obligations to the bank. Theoretically, it is suggested that increased exposure to credit risk is usually associated with decreased firm profitability (Athanasoglou, Brissimis and Delis, 2008). The higher the NPL ratio, the worse the credit quality will be, it causes the number of troubled loans is getting bigger so in this case the greater the NPL will lead to a decrease in ROA and if the NPL decreases and becomes smaller, the ROA will increase and the financial performance of the bank will get better (Soares and Yunanto, 2018). As expected in the hypotheses, Non-Performing Loan has negative relationship with ROA but this variable considered as insignificantly affects ROA since the significance level of NPL is 11.1% which is more than 5% significance level of tolerance. Based on the estimation table, we can see that the coefficient of NPL is -0.227892. This can be interpreted that in every increase by 1% in NPL will decrease -0.227892% of ROA. It can be concluded that NPL has a negative insignificant influence to Profitability. This result is in line with the research by Amoako (2015) which discovered that though NPL has a negative effect on the banks profitability, the effect is not significant.

Loan to Deposit Ratio

Setiawan and Hermanto (2017) stated the indicators commonly used to measure the extent of intermediation by the banking system has been implemented is the ratio of Loans to Deposits Ratio (LDR). The higher this ratio is, the better it means that the bank could carry out intermediation function optimally. Vice versa, the lower this ratio means the bank in carrying out its intermediary function is not optimal (Buchory, 2015). Based on the result, Loan to Deposit Ratio has insignificant impacts to ROA with negative relationship in confront to the expected value. The significance level of LDR is 63.7% which is far beyond 5% significance level of tolerance. As seen from the estimation table the coefficient of LDR is -0.008178. The interpretation of this result is in every increase by 1% in LDR will reduce 0.008178% of ROA. This negative sign is in line with the research by Soares and Yunanto (2018) which discovered that LDR has negative impacts on ROA.

Operating Expenses to Operating Income

The level of bank efficiency is a measurement of how much the bank is capable of operating. The financial ratio used to measure operating efficiency is BOPO which is the ratio between operating costs divided by operating income (Harahap, 2018). Finally, the results show that there is a significant negative relationship between Operating Expenses to Operating Income to ROA. The negative relationship is as expected for the increase in BOPO will reduce banks profit. The significance level of BOPO is 0% which is below the 5% significance level of tolerance with - 0.053601 of coefficient as shown in estimation table. This result can be interpreted that in every increase by 1% of BOPO will reduce 0.053601% of ROA. This result is in accordance with the research by Buchory (2015) which discovered that BOPO has significant negative impacts to profitability.

CONCLUSION AND RECOMMENDATION

Conclusion

- 1. Capital Adequacy Ratio has negative insignificant impacts on ROA. By considering the core capital of banks we might think that in order to generate more profit one of the best solution is to expand banks activity by enhance more capital to the banks. But why the coefficient is negative? Because getting more capital does not always mean that banks will generate more profit. It depends on how well the utilization of the capital to get profit. Credit expansion for instance. On the other hand banks sometimes abuse the capital in case of broaden their operation as suggests earlier as the operating expenses will increase. Because expansion means we need cost for new building, pay salary for more employee and other things that required for expansion.
- 2. Net Interest Margin has significant negative impacts to ROA. Indonesian commercial banks generate high profit from interest hence they are operating with high net interest margin ratio. This lead to bank relying on interest income profoundly. It is believed that high interest margin is good for the banks because it rises profit, however it is proven unfit for the citizen. Therefore, larger banks will be respecting NIM compression between 2017-2020. Smaller banks tend to be less likely to expect NIM compression over the mid-term than larger banks. Smaller banks tend to have higher cost-income ratios and smaller economies scale, and therefore may be more exposed to the future of decreasing in NIM.
- 3. Non-Performing Loan has a negative relationship as to be expected. As we know that, impaired loan by the customer will cause lost to the bank. Non-Performing Loan (NPL) of banks included on average is at 1.7953 far below the limit level of 5% that has been set by Bank Indonesia. Moreover, there are some banks in these 2 bank categories that have 0% and below 1% value of NPL such as Bank Nationalnobu, Bank Bumi Arta, Bank Agris and so on.
- 4. Loan to Deposit Ratio has negative impacts on ROA in confront with the expectation. It is because the value of credit channeling is below the standard which is only 81.0334 on average while the standard is 85-110%
- 5. Operating Expenses to Operating Ratio is one of the most influential factors in this research. Based on the result we can conclude that BOPO has significant negative impacts on ROA. It goes far beyond the limit which is 95.6050 on average while the standard set by Bank Indonesia is less than 50%.

Recommendations

- 1. Banks have to make decisions about the amount of capital they need to hold for three reasons. First, bank capital helps prevents bank failure, a situation in which the bank cannot satisfy its obligations to pay its depositors and other creditors and so goes out of business. Second, the amount of capital affects returns for the owners (equity holders) of the bank. And third, a minimum amount of bank capital (bank capital requirements) is required by regulatory authorities. But the most important thing it should be well managed. The value of Capital Adequacy Ratio in banks includes in the research is well put out since it goes far beyond the standard which is at 20.85 while the standard set by Bank Indonesia is only 8%. But as to what has been explained earlier in the conclusion, the utilization of the capital fund is defective. Hence the current banks have to be wiser in utilizing their core capital by establishing not only expansion in credit distribution but also well-considered branch expansion so that the cost can be reduced and it would be considered as successful expenses management.
- 2. In order to support the economic development of a country, the interest margin of banks must be decreased so that the citizen will not be imposed. Since banks in Indonesia are relied their profits on the interest, there will be lost in ROA if they reduced the NIM. Hence, to make there will be no decreasing in

- ROA, banks can generate profit for another strategy such as reducing the expenses cost, decreasing NPL and so on without keep their interest high.
- 3. The higher NPL obtained by the banks, the higher the decreasing in ROA the more deteriorated the bank performance is. In response to such degression, there is an effective and efficient solution in a way of set new regulation which requires customers to provide guarantee to the bank or more specifically the customers should sign a letter of agreement in which if they did not pay the loan, the banks could confiscate their valuables or assets such as land, home, any kind of business and so on.
- 4. Loan to Deposit Ratio is one of the most important ratios to support banks' performance. Hence, it should be more than the standard that has been set by the government which is 85-110%. In order to reach that number, banks should implement new innovation such as establish multi-finance companies just like bank BCA did. Through its subsidiary which is BCA Finance, BCA took multi-finance company with the value of 100 billion IDR of motorcycle credit financing. BCA also offers loan credit for Second-hand Car Showroom Owner. As two categories of commercial banks with the lowest core capital, BUKU 1 and BUKU 2 have to learn on wealthy bank from BUKU 1 such as BCA.
- 5. In order to develop their performance, banks have to consider which variables that influence its profitability the most. Additionally, based on the observation Operating Expenses to Operating Income has more than 95% of value beyond the healthy standard a bank set by the central bank which is 50% thus affects ROA significantly. Hence, the cost management must be run effectively and efficiently. Some of the strategies that bank need to consider implementing in order to maintain better ROA are limiting the number of employees to an adequate number, increasing expansion should not be established and to manage efficiency such as either creating online advertisement or proceeding with online marketing are considered to be rather effective than printed advertisement.

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