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Liquid Assets Bank Size and Bank Profitability for BUKU 1, BUKU 2, BUKU 3 and BUKU 4 in Indonesia

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ABSTRACT: The aim in this study is to investigate profitability determinants of commercial banks in Indonesia for BUKU 1, BUKU 2, BUKU 3, and BUKU 4 during 2015-2019. The measurement of Profitability is Return on Asset (ROA). The measurement of Liquidity is Liquid Asset Ratio and bank size is measured by Asset Growth. Liquid Asset Ratio has an effect with ROA significantly for BUKU 1 and BUKU 3. The higher Liquidity, the higher profitability of BUKU 1 and BUKU 3 banks in Indonesia. This finding indicates that the Liquidity is only considered for BUKU 1 and BUKU 3 in terms of banking performance determinants. For authorities and decision makers in banking companies for BUKU 1 and BUKU 3, we recommend a superior controlling of Liquidity. The lowest mean of Return on Asset is for BUKU 1 (1.5963). This finding can also be considered by investors in making investment decisions in the capital market. For investors, it's better to consider banks in BUKU 4 because it offers highest mean of Return on Asset (3.1427) with lowest risk (0.20214), as measured by standard deviation among the others. However, investors should also be careful to Liquidity as measured by Liquid Assets Ratio in BUKU 4 is the smallest among the others. Recommendation for future research is investigating longer period and separating the sample of countries. Recognizing the drivers of Return on Asset for BUKU 1 and BUKU 3 will help investors in generating the investment strategy.

KEYWORDS - Asset growth, liquid asset ratio, return on asset

I. INTRODUCTION

Banking sectors are one of the importance sectors for a country. In contributing to economic growth and country monetary policy, banks can be work as intermediate parties between the funder, the party who has a certain amount of funds and the party who needs the funds. The relationship between the bank profitability and economic growth has been obtained from several studies (Rajan & Zingales, 1998; Levine, 1998). Profitable banks will improve and stabilize the economic growth and stabilize country's financial system. Banks with excellent financial performance and highly competitive could distribute commercial credit to business sector. The distribution of commercial credit to the society will have a great contribution to economic growth of a country.

Profitability is one of the importance indicator for bank performance measurement. It's also the main purpose of every company to maximize the wealthness of shareholders. Profitability of banking company depends on internal and external factors. These variables are benefecial for managers and the other parties for strategy formulation and policies in improving the bank profitability. Research on these variables has been carried out from several literatures. Al-Harbi (2019) examined the impact of these variables on the bank profitability that operating in the underdeveloped countries and developing countries. They found that foreign ownership, off-balance sheet activities, equity, concentration, gross domestic product growth and interest rate enlarge the performance of banking companies. Furthermore, the results also found that the developments for the banking sectors and loan will increase profitability for a long time by using existing samples. On the contrary, the study found that deposits will have an impact in lowering profitability.

Short (1979), Bourke (1989) and previous researchers have been studied about the banking profitability determinants in developing countries. From figure 1, it can be seen that the fluctuating trend for monthly performance growth of commercial banks in Indonesia from December 2015 until December 2019. This is one of the reason why researchers want to investigate the profitability of banks on BUKU 1, BUKU 2, BUKU 3 and BUKU 4.

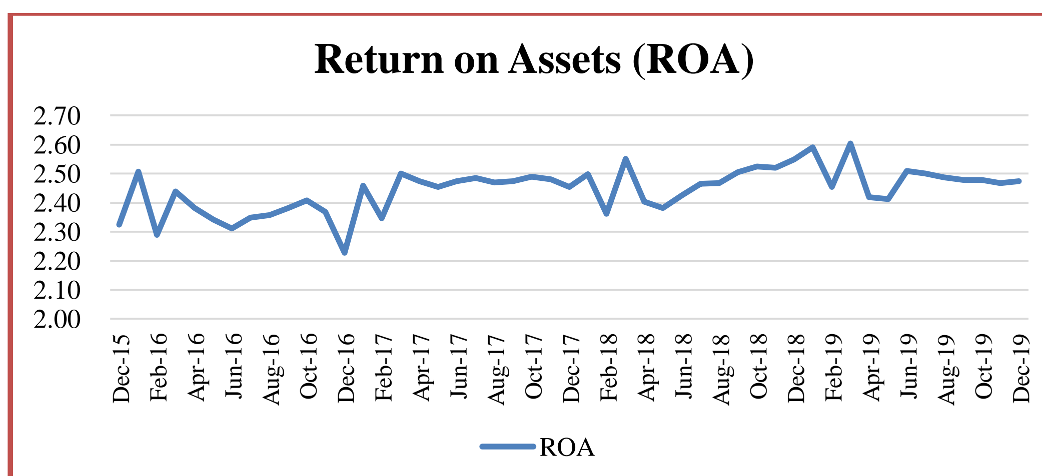

Figure 1. Performance Growth of Commercial Banks in Indonesia for 2015-2019
Source: Otoritas Jasa Keuangan (processed)

Financial ratios are used to analyze the fundamental state of a company. This ratio can provide a calculation of how much the ability to pay debts and generate income to shareholders. Financial ratios can also be used as a basis for assessment in the decision-making process, even regulating the companies' performance (Barnes, 1987). Companies use return on assets for profitability measurement and to measure the company's ability in generating revenue by its assets. Whittington (1980) stated the important role of financial ratios, company that generates good fundamentals and generate high return from the assets will have continuous operation. Financial ratio plays an important role in measuring financial performance and ROA ratio is the most used ratio to measure the financial condition and efficiency in using its resources (Lewellen, 2004). Management need to use ratio to measure the performance of the assets against in reaching the business goals and competing to all of competitors.

Liquidity, ownership, age and size have been proven in the literatures as the financial performance determinants (Deitiana, 2015). There're still very few studies that have examined the relationship between the liquidity and bank size to bank profitability in Indonesia for BUKU 1, BUKU 2, BUKU 3 and BUKU 4 for period 2015-2019. This research therefore aims to find out the bank profitability determinants which are categorized into Liquid Asset Ratio and Asset Growth. Liquidity defines as the ability of company to pay depositors within a short time. Liquidity management is the concern of a financial manager to achieve the continuity of operations in the company. Insufficiency of liquidity means that the company does not have the ability to pay short-term debt or other obligations. This will result in a forced sale of all other assets and investments and, at worst, will result in bankruptcy. Upgrading the liquidity management of banking company is required. It can be done by lowering the liquid asset ratios for the cash flow management (Bourke, 1989). Based on research on banking companies from 1972-1981 in Australia, Europe and North America, Bourke (1989) found a positive effect between liquid assets and profitability. Unlike Bourke (1989) and Molyneux and Thorton (1992) have different results, liquidity has a negative effect to profitability.

Bank size is relevant also in relation to the bank profitability. Size has the positive effect to profitability (Molyneux and Thornton, 1992). The size of total asset can be defined as bank size. Companies that have a larger size are expected to have a large profitability as well, which is directly proportional. Larger banks have a strong influence on strategic decision making, have greater influence over competitors and the other stakeholders (Babalola and Abiola, 2013). Bank size in terms of assets, capital, deposits and loans affects decisions quality on the activities undertaken by a bank, which in effect, affects bank performance (Olowokure, Tanko & Nyor, 2015). (10)

II. THEORICAL BACKGROUND

Signalling Theory

Signaling theory suggests that an action taken will produce a certain reaction, either positive or negative. The reactions are included the stakeholder's reactions related to financial conditions. The signal that can be given by the management as an internal party from the financial statements is to give instructions to investors as an external party about the future management of the company's prospects (Ullah, 2020). When it comes to stock price in the application of this theory, stock price will change when a dividend payout also changes (Lintner, 1956). Studies that have proven it are Ross (1977), Leland and Pyle (1977) and Bhattacharya (1979). Managers will try to convey the valuable information about the company to investors in order to

increase price of stocks. Signalling theory emphasizes the importance of companies in presenting the informations to the public (Morris, 1987). The informations are financial statements, company policy or the other relevant informations that disclosed by company. There are two parties involved in the application of this theory, namely insiders and outsiders (Spence (1973). Management as inside party acts as a party that gives signals to the public, both positive and negative informations. Investors as outside parties such act as parties that receive the signal from inside parties. Regarding the type of information to be announced to public, management typically want to maintain a good corporate image, so of course management communicates only for positive information about the internal state of the company to outsiders, resulting in the phenomenon of asymmetric information (Eriksson and Simpson, 2007).

Liquidity-Profitability Trade-Off Theory

This theory defines as a trade-off theory that exists between liquidity and companies' profitability. This theory stated that a company is not able to chase two goals of being profitable and being liquid at the same time. Liquidity is as important to stability of banks. The regulation of banks is necessary to maintain safety and the banking system soundness which which can prevent the company in a financial difficulty. for both smaller and larger firms, holding cash becomes a problem because it represents the company's inability to utilize all of the assets to generate profits. Therefore, balancing of liquidity and profitability is needed for the companies need to achieve the sufficient amount of liquid resources (Samiloglu and Demirgunes, 2008; Raheman & Nasr, 2007). Yusuf, Nwufo and Chima (2019) found the optimal synergy in managing liquidity and bank profitability in Nigeria. Multiple regression model was used for hypothesis testing with a significance level of 5%. They found that liquidity management and profitability of banks in Nigeria synergize with each other significantly. An optimal liquidity and profitability management is fulfilled when a balance is struck between two performance indicators. The pursuit of one of them does not lead to a detrimental effect on the other performances. In pursuing profit maximization, banks should mitigate the liquidity risks and maintain optimum liquidity and profitability equilibrium.

Internal Factors

Profitability is an important measurement of bank performance that provides the information about the effectiveness of utilization of assets. Profit can be a source of prosperity for all shareholders and very important goal that must be achieved by the company. Good financial performance is attractive for investors as the investment decisions determinants. Managers can also make financial decisions in operating the activity of company. It can be considered for creditors in substantiating their funding decisions. The empirical literatures distinguish bank profitability determinants into internal factors and external factors. Most of the literatures concluded that internal factors explained large portion of bank profitability. However, the research findings vary across countries because there is a difference in terms of datasets and environments (Athanasoglou, Brissimis & Delis, 2008). Many literatures have been conducted to analyze bank performance using financial variables which can be obtained from the financial statements. Among all of the financial statements, these two main reports have been used from so many literatures.

(1) Balance sheet

This report is a financial report that emphasizes bank's financial position in a certain period. It describes the management policies and decisions in the resources allocation. Various variables that can affect bank performance can be seen from this report. Abuzar (2013) examined profitability determinants of Islamic banks in Sudan. Internal factors are the only factors that have an effect on Return on Equity, Return on Assets and Net Financing Margin as measurement of profitability, significantly. Liquidity, cost and size have an effect on profitability. Javaid, Anwar and Abdul Gafoor (2011) aimed to give the top 10 bank profitability determinants in Pakistan from 2004 until 2008. Pooled Ordinary Least Square has been conducted to analyze the effect of assets, equity, loans, and deposits to profitability. They found evidence that all of variables have an effect on bank profitability. Eljelly (2013) examined profitability determinants of Islamic banks. This research has many benefits for all of stakeholders in terms of liquidity, cost and bank structure. Internal factors are the only one factor that have a strength impact on Return on Assets, Net Financing Margin and Return on Equity. Liquidity, cost and bank size have significant relationship on profitability.

(2) Income statement

In contrast to the balance sheet which concentrates more on the financial position, this financial statement describes the success of operational activity for a certain period. A study that found a negative effect between expenses and profitability has been conducted by Bourke (1989). Banks with high profits are able to run the operating activities with lower cost. On the contrary, Molyneux and Thornton (1992) found that the expense variable has positive relationship to European banking profitability. High profits in a regulated industry

may be appropriate in giving higher salary and wage expenditures. The efficiency wage theory was supported in this research which stated that employees productivity increasing along with wage rate. Through corporate tax and other taxes, banks are subject to direct taxation. Study about a positive effect between tax and profitability has been conducted by Demirguc-Kunt and Huizinga (1999). Curak, Poposki and Pepur (2012) analyzed the determinants of 16 banks profitability in the Macedonian banking system from 2005 until 2010. They found that the most important determinant is operating expense management. Furthermore, Obamuyi (2013) investigated the profitability determinants in Nigeria. Fixed effect regression model was employed to test the model. A panel data obtained from the financial statements of 20 banks from 2006 to 2012. Interest income as well as efficient expenses management contributes to higher performance and growth in Nigeria.

Profitability has internal determinants that are grouped by financial report variables and non-financial report variables (Haron, 2004). Internal determinants of profitability are basically financial statement variables. Return on asset defines as a profitability ratio that measured by dividing net income to total assets, it describes the financial performance by measuring how efficient a firm uses its assets to produce sales over a year. Return on asset describes the ability of in generating profit from utilizing the assets (Aissa & Goaied, 2016). Liquidity and bank size are internal factors which we will use in this study.

Liquidity

Liquidity helps a bank to reduce the failureness to pay depositors in regular transactions (Kumer and Sayani, 2015). The part of liquidity management in company according to Lawrence (2003):

(1) Cash flow management: The sustainability of each company's operating activities depends on the company's capabilities in paying short-term and long-term obligations. The ability to take opportunities to finance business expansion is also one of the indicator of success in the sustainability of the company.

(2) Credit policy: Credit policy can be interpreted as written guide in setting the requirements for offering goods on credit, the requirements of suitable customer for the qualification, the collections regulations, the steps to be taken from the customer delinquency, the exact payment terms, the limits set on outstanding balances and the other related policies. In maintaining good relationship with customers, business need an effort in reaching out the sales target and implementing strategies of business that suitable for all of stakeholders.

(3) Cash conversion cycle: Cash conversion cycle is also one of liquidity measurement, measures time lag between cash payments for purchase of inventories and the period of receiving the receivables from the clients.

Alshatti (2015) stated that it is essential to manage liquidity for increasing the bank profitability. Many researchers have been studying liquidity and the impact on profitability. Alshatti (2015) investigated the relationship of liquidity on profitability during 2005-2012 for 13 Jordanian banks by using regression analysis. The higher quick ratio and investment ratio, the higher the profitability of the available funds. An optimum liquidity utilization in a various investment need to be considered in order to increase the profitability. Banks need to apply liquidity management to make sure the sufficient liquidity in executing the efficient operation activities.

Larty et al. (2013) investigated 9 listed banks from Ghana aiming at determining the relationship between profitability and liquidity for 2005-2010. They used ratio analysis, time series, correlations and regression test. They found the positive effect between profitability and liquidity but insignificant during that period. Dawood (2014) investigated the banks profitability in Pakistan for 2009-2012. The internal factors of the study were management policies, capital ratios and risk management whereas inflation and government policies were the external factors. They suggested that liquidity, cost deficiency and capital adequacy have effect to profitability.

Malik (2016) studied the liquidity-profitability trade-off for private sector banks in Pakistan during 2009-2013. The sample was 22 private sector banks registered under State bank of Pakistan. Ordinary Least Squares technique was applied to test models. This study found a significant effect between bank liquidity to Return on Assets. However, the relationship became statistically insignificant when using Return on Equity and Return on Investment as measurement of profitability. According to research recommendations, banks should assess and restructure the liquidity management strategy. This will not only increase the return on shareholders' equity but will also increase the utilization of the bank's company assets.

Mohanty and Mehrotra (2018) investigated the profitability determinants by using samples that listed in Bombay Stock Exchange and also Small and Medium Enterprises (SMEs) by using the pooled regression analysis. The proxy of Profitability was Net Profit Margin, Retrun on Assets and Return on Capital. They found insignificant negative effect between liquidity ratios and performance of SMEs. They found the role of liquidity on performance of selected SMEs, significantly. The findings also showed negative effect between profitability to the explanatory variables (quick ratio, current ratio and cash ratio) in selected SMEs.

Lartey, Antwi and Boadi (2013) studied the financial reports of the 7 listed banks about the effect between liquidity and bank profitability listed on Ghana Stock Exchange. By using the longitudinal time dimension, the panel method was used to study the relevant liquidity and profitability ratios. This study used 7 (seven) financial reports of listed banks. Liquidity and profitability of the listed banks were declining from 2005 until 2010. Furthermore, there was insignificant effect between liquidity and listed banks profitability in Ghana.

Bank Size

One of internal factor is related to fundamental of bank, namely bank size. Larger banks are expected to have the ability to take benefit from economies of scale in transactions that will leads to generating high profit. Bank size was expected to has the positive relationship to the profitability (Smirlock, 1985 and Demirguc-Kunt, 1998). However, several studies have found the negative relationship of these vairables (Pasiouras and Kosmidou, 2007 and Stiroh and Rumble, 2006). The positive relationship was caused by the bank size, large banks have more diversification in services and products. This will lead to reducing risk and higher operational efficiency and profitability. Moreover, banks that have larger size appear to be more profitable because they can raise cheap capital, relatively (Short, 1979).

Sufian and Chong (2008) found the importance of assets in determining the profitability. They examined bank profitability determinants in Philippines for 1990-2005. Internal determinants such as assets, NPL, and OE/OI have negative relationship to bank profitability. Kosmidou, Pasiouras, Doumpos, and Zopounidis (2004) investigated 32 banks to analyze profitability determinants in the UK. Internal determinant such as capital, bank size and OE/OI have significant positive relationship on profitability. In mitigating data skewness, the measurement of bank size was the natural logarithm of total assets. Total asset was one of significant determinant of profitability. Asset diversification can influence the total assets and increase the risk. Total asset as measurement of bank size has been used in literatures as used by Demirguc-Kunt and Huizinga (2000), Haron (2004) and Naceur and Goaied (2010).

Velnampy and Nimalathasan (2010) investigated effect of size on bank performance of Bank of Ceylon and Commercial Bank of Ceylon Ltd. Research period in this study was conducted for ten (10) years accounting period, from 1997 until 2006. Based on correlation analysis test, it was found an effect between Firm Size and Profitability in Commercial Bank of Ceylon Ltd. The higher Firm Size, the higher Profitability in Commercial

Bank of Ceylon Ltd. However, there was no effect between firm size and profitability in Bank of Ceylon. Alper (2011) investigated bank specific and macroeconomic factors for the profitability determinants in Turkey period 2002 until 2010. Proxies for profitability was Return on Asset and Return on Equity. Asset size and non interest income have an effect on profitability of banking companies, significantly. Interest rate was the only one factor from all of macroeconomic variables that has an effect to the bank performance. The higher real interest rate, the higher profitability of banking companies. Banks are able to increase the profitability by increasing the size of banks and non-interest income.

Ayanda et al. (2013) studied the profitability determinants for Nigerian banking industry. They found that bank size and cost efficiency but not significant. Credit risk and capital adequacy have significant relationship on bank profitability. Onuonga (2014) examined 6 commercial banks in Kenya to determine the effect of internal factors to bank profitability. He found that capital strength, bank size, operational expenses, ownership and diversification have significant effect to Return on Asset, as the measurement of profitability. Samad (2015) investigated 42 Commercial Banks in Bangladesh to find out the bank profitability determinants. Bank size and macroeconomic variables were insignificant to profitability. However, bank specific factors such as equity capital to total asset, loan to deposit ratio, loan loss provision to total asset and operating expenses have significant relationship on the bank profitability.

Ozili (2015) studied the bank profitability determinants. This study found that loan quality has significant effect to bank interest margin. Furthermore, bank size and cost efficiency have significant effect to Return on Asset. Capital Adequacy Ratio also has significant effect to bank profitability. Ali and Puah (2018) found that bank size, funding risk, credit risk and stability have significant effect on profitability by using regression analysis. However, liquidity risk has insignificant effect on profitability. Size, funding risk, liquidity risk and profitability have an effect on stability, significantly. Credit risk has insignificant effect on stability. The effect of the financial crisis is uniform and has effect for all models, but very weak.

Anggari and Dana (2020) studied the effect of Capital Adequacy Ratio, Third Party Fund, Loan to Deposit Ratio, and Bank Size to profitability listed in Indonesia Stock Exchange for period 2016 until 2018. By using purposive sampling method, the sample in this study was 18 banks. This study found that all of variables have an effect on profitability. However, Loan to Deposit Ratio has an effect on the Profitability in Indonesia, but very weak, not significant.

Jadah, et. al. (2020) studied bank profitability by investigating bank-specific characteristics as the internal determinants and macroeconomic factors and government variables as the external determinants of banking companies in Iraq. Unbalanced panel data was used from eighteen (18) banks from 2005 to 2017 by

considering data availability in the period from 2005 until 2017. The results found that bank size, the equity to total assets and total loans to total assets ratios, GDP growth, and government effectiveness have an effect on the profitability of Iraqi banks, significantly. However, significant effect also found for credit risk, inflation, interest rate, unemployment, and political instability to bank profitability.

III. METHODOLOGY

Commercial banks data in Indonesia (BUKU 1, BUKU 2, BUKU 3 and BUKU 4) were obtained from OJK. The time period 2015-2019 was partly chosen by data availability. In this study, measurement of profitability is Return on Asset. Return on Asset defines as profit after tax to total assets, this ratio represents how much money or profit generated per dollar of assets. Literatures have proven that Return on Asset describes how efficient a bank in managing the revenues and expenses, and also describes the management ability of the bank in generating profits by using the available financial and real assets (Jahan, 2012). ROA also describes the ability of managers in using the real investment resources in generating profits (Al-Harbi, 2019). The first independent variable in this study is Liquid Asset Ratio, as the measurement of liquidity. The higher the percentage ratio indicates that the bank is more liquid. The one major determinants for the bank failureness is insufficient liquidity. However, liquid assets have an opportunity cost of generating higher return. There's study that have found the positive effect between liquidity and banks profitability (Bourke, 1989). The second variable is Asset Growth, as the measurement of bank size. Asset Growth is a powerful variable in determining rate of return (Gray and Johnson, 2011). The formula for this variable is: (Total assets$_t$ -Total assets$_{t-1}$)/ Total assets$_{t-1}$. Regression in SPSS software is used to analyze the data. The regression equation is:

$$Y_{it} = \alpha_{it} + \beta_{1t}X_{1t} + \beta_{2t}X_{2t} + \beta_{3t}X_{3t} + e_{it}$$

Where:
Y stands for Return on Asset
α stands for alpha
β stands for coefficient
X_1 stands for Liquid Asset Ratio
X_2 stands for Asset Growth
e stands for error

IV. RESULT AND DISCUSSION

Descriptive statistics used to examine the performance determinants of banking companies that summarized in Table 1. This descriptive statistics can be useful to provide basic information about all of variables in the research, both for independent and dependent variables. These informations include the measurement of central tendency and variability of the data (spread). This descriptive statistics can give the potential relationships between all of variables. Table 1 describes total observations, minimum data, maximum data, mean value and standard deviation from all of the data. Average value is explained through mean and the deviation from the mean is measured by standard deviation. Standard deviation describes how much dispersion exists from the mean. A low standard deviation means that the data points are inclined to be extremely get closer to the amount of mean, while high values of standard deviation means that data set is broaden out over a large range of values. The mean value describes the arithmetical average of the data which are examined in the data analysis. The meaning of minimum values is the lower value of data and maximum values represents the highest value of data. Median describes numerical value separating the higher half of a data sample.

The number of observation used in this study is 60 observations for BUKU 1, BUKU 2, BUKU 3 and BUKU 4 from 2015 to 2019. The largest deviation is for Liquid Asset Ratio for BUKU 1 (2.77254), BUKU 2 (1.68634), BUKU 3 (1.32914) and BUKU 4 (1.34339). Meanwhile, the lowest deviation is for Asset Growth for BUKU 1 (0.06534), BUKU 2 (0.06534), BUKU 3 (0.02461) and BUKU 4 (0.02055). It is also observed that the means of the independent variables are all positive, beside Asset Growth has negative mean for BUKU 1 (-0.0147) and BUKU 2 (-0.0007), it means there's a decrease in the number of asset for BUKU 1 and BUKU 2. Otherwise, BUKU 3 and BUKU 4 has positive mean value, 0.0063 for BUKU 3, and 0.0110 for BUKU 4. Additional data for BUKU 4, the highest Return on Asset also lies with BUKU 4 banks (3.1427).

This study applies Return on Asset (ROA) as the proxy of profitability. The lowest mean of Return on Asset is for BUKU 1 (1.5963). This finding can also be considered by investors in making investment decisions in the capital market. For investors, it's better to consider banks in BUKU 4 because it offers highest mean of Return on Asset (3.1427) with lowest risk (0.20214), as measured by standard deviation among the others. However, investors should also be careful to Liquidity as measured by Liquid Assets Ratio in BUKU 4 is the smallest among the others. This study also has limitations in the number of observations it has.

Table 1. Descriptive Statistics

	BUKU	N	Minimum	Maximum	Mean	Std. Deviation
Return on Asset	1	60	0.71	2.31	1.5963	0.32853
	2	60	1.26	3.21	1.7152	0.31705
	3	60	1.25	2.24	1.7830	0.23056
	4	60	2.70	3.72	3.1427	0.20214
Liquid Assets Ratio	1	60	14.54	27.50	21.3402	2.77254
	2	60	17.39	24.01	20.1612	1.68634
	3	60	14.30	18.77	16.4773	1.32914
	4	60	13.58	19.09	16.1663	1.34339
Asset Growth	1	60	-0.27	0.07	-0.0147	0.06534
	2	60	-0.17	0.05	-0.0007	0.03821
	3	60	-0.09	0.12	0.0063	0.02461
	4	60	-0.03	0.08	0.0110	0.02055
Valid N (listwise)	1	60				
	2	60				
	3	60				
	4	60				

***Source*: SPSS output, 2021**

Table 2 describes the correlation test between variables in this study. The correlation between Asset Growth and Return on Asset found to be positive but not significant for BUKU 1, BUKU 2, and negative but not significant for BUKU 3 and BUKU 4 (p-value > 0.05). The correlation between Liquidity Asset Ratio and Return on Asset found to be positive but not significant for BUKU 1, BUKU 2. The correlation between Liquidity Asset Ratio and Return on Asset is significant for BUKU 1 and BUKU 3 (p-value < 0.05). This means that there is a strength relationship between the two variables and the relationship is positive.

Table 2. Correlation Results

Notes: **ROA = Return on Asset** **LAR = Liquid Assets Ratio** **AG = Asset Growth**		**ROA**				**LAR**				**AG**			
		BUKU				BUKU				BUKU			
		1	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**
ROA	Pearson Correlation	1	1	1	1	0.564	0.221	0.534	0.045	0.023	0.077	-0.167	-0.091
	Sig.(2-tailed)					0.000	0.090	0.000	0.734	0.863	0.561	0.201	0.491
	N	60	60	60	60	60	60	60	60	60	60	60	60
LAR	Pearson Correlation	0.564	0.221	0.534	0.045	1	1	1	1	0.173	-0.039	-0.008	0.182
	Sig.(2-tailed)	0.000	0.090	0.000	0.734					0.187	0.770	0.951	0.163
	N	60	60	60	60	60	60	60	60	60	60	60	60
AG	Pearson Correlation	0.023	0.077	-0.167	-0,091	0.173	-0.039	-0.008	0.182	1	1	1	1
	Sig.(2-tailed)	0.863	0.561	0.201	0.491	0.187	0.770	0.951	0.163				
	N	60	60	60	60	60	60	60	60	60	60	60	60

***Source*: SPSS output, 2021**

Table 3 describes data coefficients and statistical significance attained considering all banking sector in the samples. Based on regression results, the explanatory power of the two models, the R-square, is at the satisfactory level of 0.324 for BUKU 1, the highest one. The lowest R-square is for BUKU 4 (0.012). Liquidity Assets Ratio and Asset Growth have no significant effect on Return on Asset for BUKU 2 and BUKU 4 (p > 0.05), which is described in table 2. However, there's difference result for BUKU 1 and BUKU 3. Model 1 and 3 show that Liquidity as measured by Liquidity Asset Ratio has positive effect on profitability significantly (p <

0.05). This indicates that when the Liquidity Asset Ratio increases, the banking performance for BUKU 1 and 3 distributed will also be higher. The higher the Liquidity, the greater the profit generated by the banking company.

Many researchers have been studying liquidity and the impact on profitability. Based on research on banking companies from 1972-1981 in Australia, Europe and North America, Bourke (1989) found a positive effect between liquid assets and profitability. Alshatti (2015) also investigated the effect of liquidity on profitability during 2005-2012 for 13 Jordanian banks by using regression analysis. An optimum liquidity utilization in a various investment need to be considered in order to increase the profitability. According to the recommendation of this research, banks need to apply liquidity management to make sure the sufficient liquidity in executing the efficient operation activities. Furthermore, Dawood (2014) investigated the banks profitability in Pakistan for 2009-2012. The internal factors of the study were management policies, capital ratios and risk management whereas inflation and government policies were the external factors. They suggested that liquidity, cost deficiency and capital adequacy have effect to profitability.

Malik (2016) studied the liquidity-profitability trade-off for private sector banks in Pakistan during 2009-2013. The sample was 22 private sector banks registered under State bank of Pakistan. Ordinary Least Squares technique was applied to test models. This study found a significant effect between bank liquidity to Return on Assets. However, the relationship became statistically insignificant when using Return on Equity and Return on Investment as measurement of profitability. According to research recommendations, banks should assess and restructure the liquidity management strategy. This will not only increase the return on shareholders' equity but will also increase the utilization of the bank's company assets.

Several literatures of theories were used to support the determinants of profitability. The Signalling Theory and Liquidity-Profitability Trade-Off theory are applied in this research. Signalling theory emphasizes the importance of companies in presenting the informations to the public. The informations for financial statements, company policy or the other relevant informations that disclosed by company should be careful to be announced. There are two parties involved in the application of this theory, namely insiders and outsiders (Spence (1973). Management as inside party acts as a party that gives signals to the public, both positive and negative informations, especially for Liquid Assets Ratio. Investors as outside parties such act as parties that receive the signal from inside parties. Liquidity helps a bank to reduce the failureness to pay the short term and long term debts. The sustainability of each company's operating activities depends on the company's capabilities in paying short-term and long-term obligations. It is essential for the companies to manage liquidity for increasing the bank profitability.

Table 3. Regression Results

	Model 1	**Model 2**	**Model 3**	**Model 4**
Constant	0.130	0.865	0.270	(2.999)
LAR	0.068 (0.000) *	0.042 (0.087)	0.092 (0.000) *	0.010 (0.637)
AG	-0.387 (0.489)	0.707 (0.511)	-1.528 (0.143)	-1.006 (0.448)
R^2	0.324	0.056	0.312	0.012
F	13.670	1.695	12.910	0.350

Notes: T-statistic * indicates significance at the 5% level
Source: SPSS output, 2021

The Liquidity-Profitability Trade-Off theory is theory that explains a trade-off exists between the liquidity and the firm profitability. A firm is not able to meet the two objectives of being profitable and being liquid at the same time. Liquidity is as important to stability of banks. The regulation of banks is necessary to maintain safety and the banking system soundness which which can prevent the company in a financial difficulty. Holding cash becomes the problem for both smaller and larger firms. Therefore, companies need to balance the amount of liquidity and profitability in reaching the ideal amount of liquid resources (Samiloglu and Demirgunes, 2008; Raheman & Nasr, 2007). However, the finding of this research is the positive effect between liquidity and profitability. The higher liquidity, the higher also bank profitability for BUKU 1 and BUKU 3. This provides new insights for to this theory development when it comes to different total asset of banking companies in Indonesia.

Yusuf, Nwufo and Chima (2019) found the optimal synergy in managing liquidity and bank profitability in Nigeria. Multiple regression model was used for hypothesis testing with a significance level of 5%. They found that liquidity management and profitability of banks in Nigeria synergize with each other significantly. An optimal liquidity and profitability management is fulfilled when a balance is struck between two performance indicators. The pursuit of one of them does not lead to a detrimental effect on the other

performances. In pursuing profit maximization, banks should mitigate the liquidity risks and maintain optimum liquidity and profitability equilibrium.

The findings of this research indicate that the Liquidity only considered for BUKU 1 and BUKU 3 in terms of banking performance determinants. For additional information, BUKU 1 is for banks that have capital less than one trillion IDR. BUKU 2 is for banks with capital that around 1 (one) trillion IDR until five trillion IDR. BUKU 3 is for banks with capital that is five trillion IDR until 30 trillion IDR. This finding is consistent with Ibe (2013) and Lartey et al. (2013), they also found the positive effect of liquidity on bank profitability. Alshatti (2015) stated that an optimum liquidity utilization in a various investment need to be considered in order to increase the profitability. Banks should apply liquidity management to make sure the sufficient liquidity in executing the efficient operation activities.

In Indonesia, Supriyono and Herdhayinta (2019) has conducted research about profitability determinants. They found that profitability as measured by Return on Assets (ROA) and Return on Equity (ROE), is determined internally by the total assets, LDR, OE/OI, and NIM and externally by the BIRATE and inflation, significantly. All of these variables have positive effect to the performance as measured by profitability, except for OE/OI and inflation, which have negative relationships with profitability.

V. CONCLUSION

This study concludes that the profitability of BUKU 1 and BUKU 3 banks in Indonesia is significantly determined by Liquidity, as measured by Liquid Assets Ratio. The higher Liquidity, the greater the profit generated by the BUKU 1 and BUKU 3 banks.

For authorities and decision makers in banking companies, we suggest a better controlling for the Liquidity. Signalling theory emphasizes the importance of companies in presenting the informations to the public. The informations for financial statements, company policy or the other relevant informations that disclosed by company should be careful to be announced. Management as inside party acts as a party that gives signals to the public, both positive and negative informations.

The Liquidity-Profitability Trade-Off theory is theory that explains a trade-off exists between the liquidity and the firm profitability. The finding of this study has the positive relationship between liquidity and profitability. The higher liquidity, the higher also bank profitability for BUKU 1 and BUKU 3. This provides new insights for to this theory development when it comes to different total asset of banking companies in Indonesia.

The findings of this research can provide benefits as a reference in the financial literatures, especially the literature on the banking profitability. This research supports theories related to profitability, especially signalling theory. Signalling theory emphasizes the importance of companies in presenting the informations to the public. The informations are financial statements, company policy or the other relevant informations that disclosed by company. As in signalling theory, management as inside party acts as a party that gives signals to the public, both positive and negative informations. Liquidity helps a bank to reduce the failureness to pay the short term and long term debts. The sustainability of each company's operating activities depends on the company's capabilities in paying short-term and long-term obligations. It is essential for the companies to manage liquidity for increasing the bank profitability.

Future research should investigate the other informations both for internal and external factors also to find the better results for profitability determinants in banking companies. The practical implication based on the results of this study is that companies must be careful in making decisions on generating the profitability because it also affects the value of the company. Extending the period and by splitting the sample in groups of countries is recommended for future research to discover the new insights for all of shareholders with different theories.

The practical implication based on the results of this study is that companies should be careful in making decisions on generating the profitability because it also affects the prospects of investors regarding the company. Based on signalling theory, investors as outside parties such act as parties that receive the signal from inside parties. Recognizing the drivers of Return on Asset for BUKU 1 and BUKU 3 will help investors in generating the investment strategy. Investors should consider Liquidity of the banking company to be invested, especially for BUKU 1 and BUKU 3 in Indonesia because the profitability of banking companies is strongly influenced by the Liquidity as measured by Liquid Assets Ratio, and will affect the return on investment made.
This study has several limitations, including the ability of the model to explain the dependent variable is still lacking, seen from the R^2 value that below 80% for the profitability determinants in banking companies. The proxy of Liquidity is Liquid Assets Ratio, where there are many other measuring proxies that can be used. Our study is conducted on the banking sector of Indonesia from 2015-2019. This research is mainly concentrate on banking sector for particular time so the findings of this research couldn’t be generalized on different segments of economy. Only 4 years data have been used in this research, further year data might have been used. The

additional of primary data can be used further to enrich an improvement in conjunction with reliability and quality of results.

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