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Capital Adequacy and Liquidity Analysis of Operating Efficiency in Banking Issuers Listed on the Indonesia Stock Exchange

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Abstract— *Efficiency measurements carried out by banks are faced with the condition of how to get the optimal level of output with the existing input level, or get the minimum level of input with a certain level of output. Identification of input and output allocation can be analyzed further to see the cause of inefficiency. There are several factors that affect the efficiency of certain operations, namely capital adequacy and liquidity. The inconsistency of research results that examine the effect of capital adequacy and liquidity on operating efficiency indicates that previous research has not been conclusive, thus encouraging researchers to conduct further research. This research was conducted on issuers of the banking sector listed on the Indonesia Stock Exchange from 2015 to 2019. The population of this study was issuers in the banking sector listed on the Indonesia Stock Exchange for the period 2015-2019 as many as 43 companies. The sampling method used in this study was purposive sampling method so that a sample of 30 issuers was obtained with a total of 150 observations. The type of data used in this study is quantitative data, and the source of data used in this study is secondary data. The data collection technique used in this research is through the documentation method. The data analysis technique used in this research is multiple linear regression analysis.*

Keywords—*Operational efficiency, capital adequacy, liquidity.*

I. INTRODUCTION

The capital market is seen as a barometer of the economic condition of a country, including Indonesia. The capital market is certainly an important choice for investing because it provides facilities that bring together two interests for investors and for those who need funds. Investment activities in the capital market are diversified into various sectors. The banking sector is one of the fastest growing sectors and has promising long-term business prospects. Banks are intermediary institutions that have the main task of collecting public funds and channeling them back to the community. When measuring efficiency is carried out, banks are faced with the condition of how to get the optimal level of output with the existing input level, or get the minimum level of input with a certain level of output. Identification of input and output allocation can be analyzed further to see the cause of inefficiency. Efficiency is one of the main goals to be achieved by stakeholders (stakeholders). The main purpose of stakeholders is to assist company management in increasing the value of efficiency as a result of the activities carried out and minimizing losses that may arise.

Internal factors are one of the factors that affect banking efficiency. The internal factors that affect banking efficiency are capital adequacy and liquidity owned by banks. Adequacy of bank capital can be said that the capital reserves in the bank that can be used when the bank is experiencing difficult times. The indicator used to measure capital adequacy is the Capital Adequacy Ratio (CAR). CAR is the capital requirement, namely the minimum ratio between risk capital and risky assets (Ali, 2020). This ratio aims to ensure that if the bank suffers a loss in its activities, then the availability of capital owned by the bank is able to cover the loss. The higher the CAR, the better the ability the bank to bear the risk of any risky credit/productive assets. Research conducted by Widiarti, et al. (2015) states that capital adequacy has a positive effect on bank efficiency. According to Darmawi (2011: 91), one component of the capital factor is capital adequacy. The ratio to test the bank's capital adequacy is the CAR ratio (Capital Adequacy Ratio).

Research conducted by Widiarti, et al. (2015) states that capital adequacy has a positive effect on bank efficiency. Masita & Subekti (2013) Kusmayadi (2018), and Rohmasn (2016) state that capital adequacy has a positive and significant effect on bank efficiency.

Another internal factor that affects efficiency is liquidity. Liquidity is a description of a company's ability to meet its short-term obligations in a timely manner so that liquidity is often referred to as short-term liquidity (Fahmi, 2017). According to Darmawi (2011: 59) liquidity is a term used to indicate the stock of cash and other assets that are easily converted into cash. Loan to deposit ratio (LDR) is a ratio used to measure the performance of the banking intermediation function in lending. LDR is a ratio that shows the ability to intermediary functions in channeling third party funds to credit. If this ratio shows a low number, the bank is in a condition of idle money or excess liquidity which will cause the bank to lose the opportunity to earn greater profits.

II. LITERATURE REVIEW

Capital Adequacy

According to Kasmir (2016:46), CAR is the ratio of the ratio between the ratio of capital to Risk Weighted Assets and according to government regulations. Based on the definition according to experts, it can be concluded that CAR is a bank performance ratio to measure the adequacy of capital owned by a bank to support assets that contain or generate risks, such as loans given to customers. Based on the opinions of the

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experts mentioned above, the bank's capital adequacy means that capital reserves can be used if the bank is experiencing difficult times. The indicator used to measure capital adequacy is the Capital Adequacy Ratio (CAR). CAR is the capital requirement, namely the minimum ratio between risk capital and risky assets (Ali, 2020). This ratio aims to ensure that if the bank suffers a loss in its activities, then the availability of capital owned by the bank is able to cover the loss. Banks in managing their activities efficiently, the bank's income is expected to increase. CAR is a universal metric that measures a bank's ability to absorb unexpected financial losses. It measures the amount of regulatory capital that banks must maintain to withstand risk exposure from assets.

Liquidity

According to Fahmi (2017: 87) Liquidity is a description of a company's ability to meet its short-term obligations smoothly and on time so that liquidity is often referred to as short-term liquidity. According to Syafrida Hani, (2015:121) the liquidity ratio is the ability of a company to meet financial obligations that can be immediately disbursed or those that are due. Specifically, liquidity reflects the availability of funds owned by the company to meet all maturing debts. Liquidity according to Darmawi (2011: 59) is a term used to indicate the stock of cash and other assets that are easily converted into cash. central bank or government regulations the establishment of good relations with correspondent banks so that balances are balanced, meet the needs of withdrawing funds by savers, current account holders and debtors and pay long-term obligations that have matured (Fahmi, 2017: 56).

Operation Efficiency

This efficiency is related to the level of costs used and the results obtained. The problem of efficiency is related to the problem of controlling costs. Operational efficiency means that the costs incurred to generate profits are less than the profits derived from the use of these assets. Banks that are unable to improve their level of business efficiency will lose competitiveness both in terms of mobilizing public funds and in terms of channeling these funds in the form of business capital. Efficiency can be measured by the ratio of Operating Costs to Operating Income (BOPO) (Dendawijaya, 2014: 119). Based on the opinions of the experts mentioned above, the BOPO Ratio indicates the existence of operational risk borne by the bank. The lower the BOPO value means that the bank has been able to use costs efficiently to generate profits. Increasingly high BOPO will encourage banks to strengthen funds to cover operational costs that have been incurred.

Research Hypothesis

A hypothesis is a provisional assumption or a temporary answer to a problem that is presumptive because it still has to be proven true. Based on the background, theoretical basis, previous research results and framework, the following hypotheses can be built:

H1: Capital Adequacy and Liquidity have a positive and significant effect on operating efficiency.

H2: Capital adequacy has a significant positive effect on Operational Efficiency.

H3: Liquidity has a significant positive effect on Operational Efficiency.

III. Research Methods

The data collection technique used in this research is through the documentation method which is done by collecting documentary data sources such as company history, company profiles, company annual reports that have been audited as samples of this study, namely banking companies listed on the Indonesia Stock Exchange, namely *www. idx.co.id.*

IV. Results and Discussion

Simultaneous Significant Test Results (F-Test Test)

Simultaneously, hypothesis testing is carried out by using the f-test, the f statistic test basically shows whether all independent or independent variables included in the model have a joint effect on the dependent/bound variable. The f-test was used to test H1, namely the effect of capital adequacy, liquidity, asset quality on efficiency. Based on the results of calculations using IBM SPSS Statistics 23, it can be presented which shows the magnitude of fcount for the variables of capital adequacy and liquidity on efficiency.

Partially Significant Test Results (t-test)

In the test results, it was found that the value of tcount = 2.337 is greater than the value of ttable = 1.655 and the value of sig. 0.003 is smaller when compared to the value of alpha = 0.05, so it is in the H0 rejection area. Thus H0 is rejected and H2 is accepted. Effect of Liquidity (X2) on Efficiency (Y) From the picture above it is clear that the value of tcount = 2.301 compared to the value of ttable = 1.655 and the value of sig 0.000 when compared to the value of alpha = 0.05, then it turns out that the value of tcount is greater than the value of ttable, and the value of sig is smaller than the value of , so it is in the H0 rejection region. Thus H0 is rejected and H3 is accepted. verified.

Discussion Of Hypothesis Test Results

The Effect of Capital Adequacy and Liquidity on the Efficiency of Banking Issuers

From the research results, it is known that there is a positive influence between the variables of capital adequacy, liquidity, asset quality on the efficiency of the banking sector. This is evidenced by the value of Ftable of 2.67 and the value of Fcount of 45.691, so that when compared to the value of Fcount is greater than Ftable and Fcount is in the rejection area of H0 then H1 is accepted. This means that capital adequacy, liquidity, asset quality have a positive and significant effect on efficiency. Thus, the hypothesis which states that the measure of capital adequacy, liquidity has a simultaneous effect on liquidity has been proven true.

These results explain that if there is an increase in the value of capital adequacy, liquidity, and asset quality, it will be followed by an increase in company efficiency, especially the banking sector. Efficiency assessment is considered very

important, because efficiency is a description of a bank's performance and is a factor that must be considered to face risks in its efficiency.

The Effect of Capital Adequacy on the Efficiency of Banking Issuers

From the research results, it is known that there is a positive effect of capital adequacy on efficiency. This is evidenced by the value of tcount = 2.337 which is greater than the value of ttable = 1.655 and the value of sig. 0.003 is smaller than the value of alpha = 0.05, so it is in the H0 rejection area. Thus H0 is rejected and H2 is accepted. This means that statistically for the one-sided test at the confidence level () = 5%, capital adequacy (X1) has a positive effect on efficiency (Y). This means that if there is an increase in the capital adequacy variable (X1), it will increase efficiency (Y). The results of the study indicate that, if there is an increase in the capital adequacy variable, it will increase the efficiency of the company. The success of banks is in managing their capital well. Therefore, it is necessary to manage capital in banking in such a way that people are willing to give their funds to increase bank capital. The capital owned by the bank must be maintained so that it is always sufficient to protect the depositors of funds. The level of capital adequacy is expressed in the ratio of CAR (Capital Adequacy Ratio).

The Effect of Liquidity on the Efficiency of Banking Issuers

From the research results, it is known that there is a positive influence of liquidity on the efficiency of the banking sector. This can be seen from the results of the tcount = 2,301 compared with the value of ttable = 1.655 and the value of sig 0.000 when compared with the value of alpha = 0.05, it turns out that the value of tcount is greater than the value of ttable, and the value of sig is smaller than the value of alpha, so it is in the H0 rejection area. Thus H0 is rejected and H3 is accepted. This means that statistically for the one-sided test at the confidence level () = 5%, partially liquidity (X2) has a positive effect on efficiency (Y). This means that if there is an increase in the liquidity variable (X2), it will increase efficiency (Y). The results showed, if there is an increase in the liquidity variable it will increase the efficiency of the company. The ability of banks to distribute the amount of credit is proxied by the LDR (Loan to Deposit Ratio) ratio. The larger the LDR, the higher the credit provided and increase profits, but have a high risk.

V. CONCLUSION

Based on the results of the analysis and discussion that have been described, it can be concluded as follows:

a. Capital adequacy and liquidity have a positive and significant impact on the efficiency of the banking sector.
b. Capital adequacy has a positive and significant effect on the efficiency of the banking sector.
c. Liquidity has a positive and significant effect on the efficiency of the banking sector

VI. LIMITATIONS AND SUGGESTIONS

The results obtained in this study have limitations where the research is only carried out in the banking sector. For the next researcher, it can involve more sectors listed on the Stock Exchange. For example, in analyzing the company's financial performance, where the analysis of the company's financial performance has an impact on potential investors who want to invest.

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