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EXAMINING THE CAUSALITY OF CAPITAL TOWARDS LIQUIDITY CREATION BY INVOLVING THE CONTRIBUTION OF EFFECTIVE MANAGERIAL ABILITY

ABSTRACT

This study has a general purpose to extend a theoretical approach as an attempt to overcome the research inconsistency regarding the influence of capital in banking companies towards the creation of liquidity. In addition, the fact has shown that there was a problem of excess liquidity in Indonesian banks since 1997. To achieve the purpose, the effort is to offer a new concept or proposition derived from the main theory synthesis approach, namely the theory of efficiency and the theory of effectiveness. This study is a causality type observing the sample of conventional commercial banks, which are ranked among the ten banks and have the largest assets in Indonesia as of December 31, 2022. This study succeeded in finding effective managerial ability as a synthesis concept combining both theories. Furthermore, the finding from the research model suggests that effective managerial ability in granting credit is a mediator factor in the relationship between bank capital and the creation of liquidity. This study starts from the existence of various contradictions in the results of empirical research on the causality effect of bank capital on the creation of liquidity. The result shows the significant role of effective managerial ability in explaining the inconclusive findings of previous studies. It confirms that when the effective managerial ability in providing credit is higher, a manager could arrange the capital to create higher liquidity and generate greater revenue. The other results report that the creation of liquidity is influenced positively by the risk of credit and influenced negatively by the volatility of earning and reserve requirements.

Keywords: bank capital, creation of liquidity, effective managerial ability

JEL Classification: E51, M10, M41, M48

INTRODUCTION

Liquidity creation is the effort created by the management of a bank to achieve a certain amount of liquidity for the economy. Berger and Bouwman (2009) and Distinguin et al. (2013) explain that the creation of liquidity by banks in the economy occurs when they channel credit to the real sectors. The creation of liquidity is the core service for a bank in the money market, namely serving liquidity from savers to businessmen through intermediation activities. Banks have a responsibility to be careful in creating liquidity for the economy. If they create too much liquidity for the economy, it can cause banks to lack liquidity to run their operations. This will be very dangerous for the survival of the banks. On the contrary, if the banks create too little liquidity for the economy, it can cause a loss of income opportunities.

The problem of liquidity creation in Indonesia began when the financial crisis in 1997 triggered the emergence of excess liquidity in the banks of Indonesia. Excess liquidity indicates that banks are reluctant to disburse credit because they consider that real sector financing still carries a high risk. In addition, the problem of liquidity creation is also caused by a policy from the statutory reserves for the ratio of loan to deposit in banks which gives a double signal. The liquidity creation problem was also exacerbated by the presence of Basel III. It sets the minimum standard in liquidity requirements including the ratio of liquidity coverage and the ratio of net stable funding in December

2010. Results of previous studies show that liquidity requirements can hinder the creation of liquidity (Donaldson et al., 2018; Lestari et al., 2020).

LITERATURE REVIEW

Liquidity creation for banks is an important decision because it is the core service provided by a bank for the economy. Therefore, many researchers have investigated this topic, especially with regard to the causality effect of bank capital towards the creation of liquidity in line with the Basel III establishment, but the results of previous research show contradictory evidence. For example, Allen and Gale (2004); Bhattacharya and Thakor (1993); Coval and Thakor (2005); Repullo (2004); Vonthadden (2004) prove that there is a positive influence of bank capital on the creation of liquidity. Meanwhile, Casu et al. (2018); Diamond and Rajan (2000, 2001); Distinguin et al. (2013); Fungáčová et al. (2016); Gorton and Winton (2000); Horváth et al. (2013); Lei and Song (2013) found evidence that there is a negative influence from bank capital to creation of liquidity.

The existence of different results in the previous research is possible because there is a variable that theoretically affects the causality from capital towards the creation of liquidity. The inconsistency of prior research is suspected because the researchers did not consider the contribution of efficiency and effectiveness of banking activities in liquidity creation. Hasan and Soula (2017) stated that within the framework of Berger and Bouwman (2009), banks generate the most liquidity by providing the least liquid loans and collecting the most liquid liabilities, namely demand deposits. However, the ability to generate loans and accumulate deposits is determined by the choice of technology, organization, and business mix of specialization or diversification by the bank. In other words, the liquidity level generated by management is the result of the production process. Therefore, the level of liquidity generated is specified by the ability of each bank to use the resources of production including financial and physical capital as well as labor.

Implementation of efficiency in the production process is urgently needed in order to increase the productive performance of the bank and provide liquidity for the economy. Many researchers have examined the bank capital and its impact on the efficiency and performance of the company (Barth et al., 2013; Berger & Bonaccorsi di Patti, 2006; Fiordelisi et al., 2011; Pessarossi & Weill, 2015). However, there is no research combining efficiency with the effectiveness of the company, even though the issues of both concepts in management are equally important. This study attempts to develop a new concept by synthesizing the theory of efficiency and the theory of effectiveness as a mediator factor in the association between the amount of capital and the creation of liquidity.

Financial Intermediation Theory. In this theory, Allen and Santomero (1997) explain that the existence of a bank has been in operation for a long time and plays the role of a financial intermediary in collecting savings from the economic community and lending funds to entrepreneurs and business people. The role played as an intermediary in the banking sector has been shown in various models and is known as intermediation theory.

Risk Transformation Theory. Based on the risk transformation theory from Boyd and Prescott (1986); Diamond (1984); Ramakrishnan and Thakor (1984), a bank could change the risk by providing risky loans for borrowers and taking riskless savings from depositors. Credit could be risky because there is a possibility of default. Therefore, the transformation of risk also coincides with the creation of liquidity.

Risk Absorption Theory. A higher amount of capital in banks would increase their ability to absorb their risk. This in turn increases their ability in creating higher liquidity. The capital of a bank absorbs risk and increases the risk-bearing capacity of the bank (Bhattacharya & Thakor, 1993; Coval & Thakor, 2005; Repullo, 2004; Vonthadden, 2004). Therefore, a higher capital ratio enables the bank to generate more liquidity. Furthermore, Berger and Bouwman (2009) combine the theories and create the risk absorption hypothesis.

Financial Fragility Crowding Out Theory. The theory of Financial Fragility crowding out explains also the creation of liquidity that was combined by Berger and Bouwman (2009). It refers to the results of research produced by Diamond and Rajan (2001) and Gorton and Winton (2000). They suggest that a greater capital ratio could decline in creating liquidity through the impact of crowding out deposits.

Liquidity Creation. Berger and Bouwman (2009) define that liquidity creation is the amount of liquidity determined by a bank for the economy. There are two kinds of ways applied to measure this concept which are produced by Deep and Schaefer (2004) and Berger and Bouwman (2009).

Bank Capital. Capital in a bank is the amount of money which the owners invest at the bank in the context to establish the entity of a business. It was intended to fund the main activities of the bank as an intermediary for money circulation. In

addition, the existing capital in the bank must be provided to comply with the regulation set by the monetary authority. This understanding is a combination of the interests of the bank owner and the bank's supervisory monetary authority (Taswan, 2005).

Efficiency. According to Farrell (1957), the efficiency of a company is the success of a company in generating the largest possible outputs from a certain number of inputs. For standard measurement of the company's success, Demerjian et al. (2011) utilize the efficiency of income indicating the company's ability to produce revenue within certain constraints of input and number of outputs. In addition, Demerjian et al. (2011) apply data envelope analysis (DEA) to get a company-level efficiency score. The company's efficiency score is then regressed using the regression analysis technique on variables which are characteristics considered specifically to the company and are outside the influence of managers. They use the residuals as the basis to determine the measurement of managerial ability.

Managerial ability. This concept refers to the various abilities of a manager who works more efficiently to comprehend the trends of industries and technologies, estimate the demand of the market, generate greater income from investment, and organize workers. A capable manager will be better able to generate higher income at a certain resource level or vice versa can minimize the number of resources at a certain income level to optimize the efficient use of available resources. Demerjian et al. (2011) provide applicable measurement for this concept which refers to the efficiency of managers in converting company resources into revenue, relative to their industry counterparts. They used DEA to obtain the measurement of company efficiency relative to its industry. The result of the relative efficiency of the company is then regressed with fixed variables that affect the company. This process generates the residual values which are the managerial ability score.

Effectiveness in Providing Credit. Mardiasmo (2002) explains that the definition of effectiveness is basically the attainment of the predetermined target, objective or policy. It is the suitability of a predetermined target or goal for the output or realization obtained. The measure used for the effectiveness in providing credit is the comparison between the target of the amount of credit to be disbursed in the bank's business plan report and the actual credit allocation contained in the bank's financial statements.

Earning Volatility. Earning volatility is the income fluctuation faced by banks which is indicated by the rise and fall of profits generated by the bank. Banks in difficult conditions will be more careful in issuing credit and prefer to strengthen their capital. The empirical evidence related to this concept was revealed by Lei and Song (2013) which suggests that earning volatility has an influence negatively on the creation of liquidity.

Credit Risk. In banking activities, the risk is the potential for an event to occur which might cause losses to the bank. When a bank implements lending activities, credit risk arises as a result of debtors being unable to pay their obligations such as the principal and interest. This will cause the banks to suffer losses because they cannot receive the previously estimated income. Several researchers among others from Al-Khoury (2012); Andreou et al. (2016); Horváth et al. (2013); Lei and Song (2013) include credit risk as a variable that affects the creation of liquidity.

Bank Size. The findings from Berger and Bouwman (2009) prove that the size of a bank can positively affect efforts to create liquidity. It was supported by Al-Khoury (2012); Horváth et al. (2013); Rauch et al. (2010). However, it was opposed by the result from Lei and Song (2013) which shows a negative causality from bank size to the creation of bank liquidity.

Reserve Requirement. The reserve requirement is a regulation of the central bank in Indonesia, namely Bank Indonesia. In this provision, Bank Indonesia requires banks to maintain a given amount of current assets at a certain percentage of their current liability. The findings from Bouwman (2018) and Donaldson et al. (2018) report that liquidity creation is influenced negatively by reserve requirements.

AIMS AND OBJECTIVES

The general objective of this study is to analyze the role of effective managerial ability in granting credit (MAC) as a mediator factor to contribute to the causality effect from the capital of a bank towards the creation of bank liquidity. It was translated into three specific objectives, namely to analyze the influence of the capital on the creation of liquidity; the influence of the capital on MAC; and the influence of MAC on the creation of liquidity. This study also aims to analyze the significance of earnings volatility, risk of credit, size of the bank, and reserve requirement in influencing the bank to create its liquidity.

METHODS

This study is classified into a causality type that attempts to build a model based on theoretical and empirical research on the variables that affect liquidity creation. Particularly, it considers the MAC as a mediator factor in the association between the capital of the bank and the creation of liquidity. The objects of this study consist of a) Endogenous variables, namely liquidity creation and MAC; b) Exogenous variables, namely capital of the bank, MAC, volatility in earnings, risk of credit, size of the bank, and reserve requirement; and c) Mediator variable, namely MAC.

The subjects of this study are the banks operating in Indonesia listed by the Financial Services Authority from 2008 to 2022. Data from 2008 to 2021 are used to determine the residual values as a proxy for managerial ability, while data from 2009 to 2022 are used to form a model and test the causality significance. The population in this study include all banks classified as a conventional commercial type listed as of December 31 from 2008 to 2022. The sampling technique applied to select the bank is a purposive sampling method with the main criteria of the 10 largest conventional commercial banks in Indonesia based on total assets, namely from the financial statements as of December 31, 2022.

All variables used in the research model are obtained from quantitative data formulated as follows:

- Liquidity creation (LCR) which refers to the calculation from Berger and Bouwman (2009) and was later derived by Lei and Song (2013).
- Bank capital (BAC) which requires data on equity and gross total assets.
- Effective managerial ability (MAC) which is calculated by:

$$MAC = (MA \times CR) / CT,$$
where: MA = managerial ability; CR = credit realization; CT = credit target.
- Earning volatility (EVO) measured by the standard deviation of returns on assets (ROA).
- Credit risk (CRR) proxied by risk-weighted assets divided by a gross total asset (RWA/GTA).
- Bank size (BAS) which requires data from gross total asset (GTA).
- Reserve requirement (RER) proxied by full reserve requirement which is the sum of the primary, the secondary, ratio of loans to deposit, and foreign currency.

The data collected for analysis in this study are secondary data type and taken from 1) Indonesian Banking Statistics for 2008-2022, 2) Financial reports of the 10 largest banks as of December 31, 2022, from 2008 to 2022 from the annual reports of each bank; 3) Credit target data for the 10 largest banks as of December 31, 2022, from 2008 to 2022 obtained from the central OJK. This study uses panel data (pooled data) which are based on cross-sectional and time series combinations. Partial Least Square with Warp PLS software is the technique applied to analyze the data.

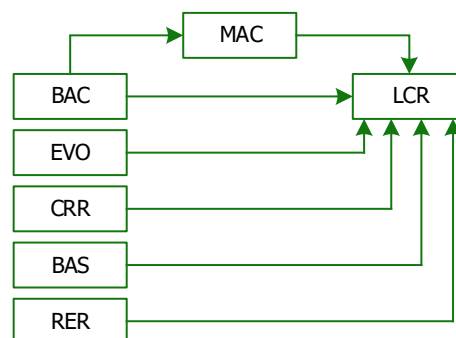


Figure 1. Overall Research Model. (Source: composed by authors)

The research model is drawn as shown in Figure 1. The model describes how this study contains an analysis that attempts to solve the research problem by extending theoretical and empirical models to overcome the inconsistency of the causality effect from the capital of the bank (BAC) to the creation of bank liquidity (LCR). In order to overcome the inconsistency, a mediating variable is proposed, namely effective managerial ability (MAC). It is placed between the BAC and LCR variables. The research model that places MAC between BAC and LCR is then tested using Warp PLS software. The research

model is developed after conducting a literature review and determining several potential variables related to LCR, namely volatility of earnings (EVO), risk of credit (CRR), size of the bank (BAS), and requirement of reserve (RER).

RESULTS

In this part, we analyze the data using descriptive statistics which contains the results of calculation for the seven variables studied in the form of average, maximum, and minimum as shown in Table 1. The value of liquidity creation (LCR) is calculated using data taken from the annual reports of 10 banks. Descriptively, the results of the calculation for liquidity creation show that the value ranges from 0.2964 to 0.6968 with an average of 0.5358. This shows that banking companies during the observation period were able to create liquidity ranging from 29.64 per cent to 69.68 per cent with an average of 53.58 per cent of gross to total assets. The skewness value is -0.1520 which indicates a negative result. This means that the distribution of data on this variable tends to be more on the right side of the average value and there are more data that have a greater number than the average value.

Table 1 informs that bank capital ranges from 0.0589 to 0.1996 with an average of 0.1153. This means that bank capital in the banking companies studied ranged from 5.89 per cent to 19.96 per cent and had their own capital with an average of 11.53 per cent of total gross assets. In addition, the value of effective managerial ability (MAC) in Table 1 appears to range from -0.2897 to 0.6942 with an average of 0.0108. The skewness value at MAC is 0.5104 and the sign is positive. This means that the distribution of data on this variable tends to be more on the left side of the average value and there are more data that have a smaller number than the average value.

Table 1. Descriptive analysis. (Source: calculations based on financial reports data of the 10 largest banks from the Financial Services Authority of Indonesia)

Variable	Average	Minim.	Maxim.	Skewness
LCR	0.5358	0.2964	0.6968	-0.1520
BAC	0.1153	0.0589	0.1996	0.7595
MAC	0.0108	-0.2897	0.6942	0.5104
EVO	0.0021	0.0002	0.0135	2.7895
CRR	0.6130	0.4047	0.8471	0.0774
BAS	33.0543	30.8850	35.0374	0.0002
RER	0.0695	0.0201	0.1421	0.0022

The value of earning volatility appears to range from 0.0002 to 0.0135 with an average of 0.0021. This shows that earning volatility fluctuated with a standard deviation of 0.0019. However, the standard deviation is relatively small, meaning that the earning tends to be stable. In addition, credit risk is a variable proxied by risk-weighted asset (RWA) compared by gross total asset (GWA). Table 1 reports that credit risk appears to range from 0.4047 to 0.8471 with an average of 0.6130. The skewness value of this variable is 0.0774 and shows a positive sign. This means that the distribution of data on this variable tends to be more on the left side of the average value.

Table 1 informs also that the value for bank size ranges from 30.8850 to 35.0374 with an average of 33.0543. The skewness value of this variable is 0.0002 and the sign is positive, meaning that the distribution of data on this variable tends to be more on the left side of the average value. The next exogenous variable is the reserve requirement or minimum reserve requirement which is a provision from the central bank. Bank Indonesia as the central bank obligates all banks to preserve a certain percentage of their current asset against current liability. Table 1 also reports that the value of the reserve requirement ranges from 0.0201 to 0.1421 with an average of 0.0695. The skewness value of this variable is 0.0022 and the sign is positive. This means that the distribution of data on this variable tends to be more on the left side of the average value.

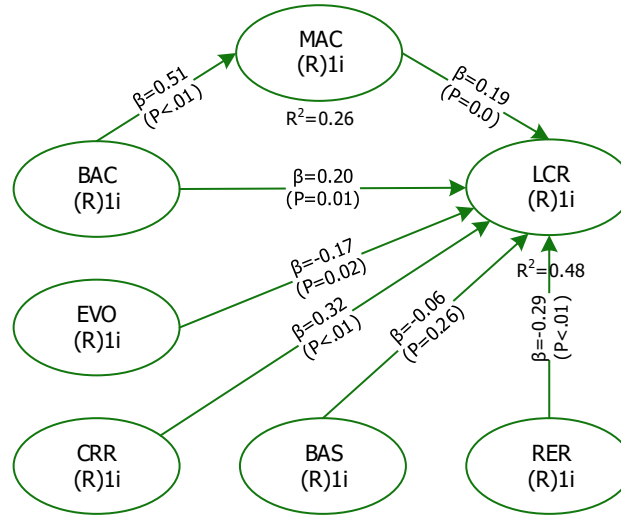


Figure 2. Data Analysis Result Chart. (Source: data processed using Warp PLS)

After the complete model is formed, the data are collected according to the needs of the research variables and analyzed using Warp PLS software. The results of the data analysis in the form of a Warp PLS chart could be shown in Figure 2. The model is evaluated by interpreting the path coefficients and the significance for both direct and indirect influence analyses. Based on Figure 2, the results of the data analysis are summarized in Table 2.

Table 2. Path coefficient and significance value of the results of data analysis. (Source: data processed using Warp PLS)

Exogen Variable	Endogen Variable	Path Coefficient	Prob. Value
BAC	LCR	0.196	0.010
BAC	MAC	0.506	0.001
MAC	LCR	0.190	0.013
EVO	LCR	-0.173	0.021
CRR	LCR	0.316	0.001
BAS	LCR	-0.057	0.257
RER	LCR	-0.286	0.001

According to Figure 2 and Table 2, the following equations are expressed from the path analysis results:

- Equation 1: $MAC = 0.506 BAC^{***}$
- Equation 2: $LCR = 0.196 BAC^{**} + 0.190 MAC^{**} - 0.173 EVO^{**} + 0.316 CRR^{***} - 0.057 BAS - 0.286 RER^{***}$

Significance testing on the results of analysis using Warp PLS is worked by paying attention to the path coefficients and probability values of each exogenous variable. The coefficient value is used to determine the direction of the influence of exogenous variables on endogenous variables. Meanwhile, the probability value is used to decide the significance of the causality.

The first result of the analysis suggests that bank capital has a significant influence positively on liquidity creation with a probability value of 0.010. It indicates that the decision made by the monetary authorities in Indonesia is correct. The Financial Services Authority in Indonesia stipulates the regulation with number 11/Pojk.03/2016 containing a minimum value for commercial banks at the capital adequacy requirements (CAR). This regulation was created to grow the ability of banks in absorbing risk so that a healthy banking system could be realized and able to develop and compete both nationally and internationally. The result of this study also provides support for implementations of Basel I, II, and III.

The second result shows that bank capital has a significant influence positively on effective managerial ability in providing credit (MAC) with a probability value of 0.001. It means the higher the capital owned by the bank, the more MAC could increase. This shows that the higher the capital, the more efficiency and effectiveness in providing bank credit could

increase. In management science, both efficiency and effectiveness are equally important. The combination of bank efficiency and effectiveness is manifested in the variable of effective managerial ability.

The main result shows that MAC partially mediates the causality from the capital of the bank towards the creation of liquidity. The model has a partial mediation effect, meaning that bank capital is able to influence the creation of liquidity indirectly by going through or involving the MAC variable. It also means that the presence of MAC plays an important role in the association between the capital of the bank and the creation of liquidity. The result of the mediation test shows that the path coefficient of the indirect effect is 0.096 with a probability value of 0.037 which was smaller than 0.05 and a standard error of 0.078.

The statistical test shows that earning volatility has a significant influence negatively on the creation of liquidity. It means that the greater the earning volatility, the smaller the liquidity creation. In addition, the risk of credit has a significant influence positively on liquidity creation. It means that the more willing managers are to take credit risk, the greater the liquidity creation. Furthermore, the size of the bank has no influence on the creation of liquidity. The absence of influence from size banks is possible because the commercial banks in Indonesia during the observation period as the samples used in this study are the 10 largest banks which have almost the same size so that they are relatively homogeneous. In addition, the difference in ownership of the banks used as samples, namely there are 4 government banks and 6 private banks, can also be the cause of bank size not having an influence on the creation of liquidity. The last result shows that reserve requirement has a significant influence negatively on liquidity creation. In liquidity requirements, Basel III obligates the banks to preserve liquid assets at a minimum level and operate with greater capital quantity and higher quality. Therefore, higher requirements in reserve could reduce liquidity creation.

DISCUSSION

The first finding of this study shows that greater capital in a bank can increase its ability in absorbing risk as the reflection of the bank to create liquidity. This finding adds clarity to the existence of the risk absorption hypothesis of Berger and Bouwman (2009). It is also in line with research reports from Bhattacharya and Thakor (1993); Fu et al. (2015); Shah and Lahiani (2018); Umar et al. (2017). The theory of risk absorption, concluded by Berger and Bouwman (2009) from the research results of Bhattacharya and Thakor (1993); Repullo (2004); Vonthadden (2004), states that the presence of large capital and a high ability to absorb risk causes a bank to create more liquidity. This condition causes the bank to provide a lot of funds when at any time the depositors withdraw their money.

The second finding shows that the amount of bank capital can increase effective managerial ability (MAC). The MAC is the ability of bank management to utilize input and produce output to support the achievement of predetermined lending goals. This finding means that the higher the capital existed in a bank, the more efficiency and effectiveness in providing bank credit could increase. The result of this study is similar to the documents of Barth et al. (2013); Bitar et al. (2016); Chortareas et al. (2012); Fiordelisi et al. (2011); Pessarossi and Weill (2015) which examined the impact of capital on efficiency. The efficiency concerns the relationship between output and input, meanwhile, the effectiveness refers to the ability of management to attain final results based on predetermined goals or targets (Keh et al., 2006). Therefore, this study combines the two because successful organizations could be achieved when they have higher efficiency and effectiveness simultaneously. Lending is the main activity of a bank in creating liquidity. By granting this credit, the bank would receive income in the form of interest. However, extending credit exposes the bank to increased risks. For this reason, the bank should manage lending efficiently and effectively so that the bank could avoid greater risks.

The third finding shows that the greater the MAC, the greater the creation of liquidity. If managers have more effective managerial abilities, then they would manage the capital and resource successfully in order to create optimal liquidity and generate large revenues. This finding is similar to the conclusions of research from Andreou et al. (2016); Choi et al. (2015); Demerjian et al. (2011) which prove that bank liquidity creation was influenced positively by managerial ability. The measure of managerial ability created by Demerjian et al. (2011) and supported by Andreou et al. (2016) is considered more appropriate because it has eliminated significant aspects of the company that are beyond management's control. However, Ho and Zhu (2004) state that researchers examining on evaluation of company performance only pay attention to efficiency operationally, but they usually ignore the effectiveness operationally which could directly affect the creation of company liquidity.

The fourth finding shows that the existence of MAC provides an important role in the association effect from the capital of the bank towards the creation of liquidity. Empirical research by previous researchers on the effect of capital on liquidity creation has shown different results. On one side, Bhattacharya and Thakor (1993); Repullo (2004); Vonthadden (2004) produced a theory of risk absorption and stated that liquidity creation is affected positively by bank capital. On the other

side, Diamond and Rajan (2000) and Gorton and Winton (2000) produced a theory of financial fragility crowding out and stated that liquidity creation is affected negatively by bank capital. Thus, the existence of the MAC as a mediator can play an important role to solve the different results and the causality effect of both variables becomes clearer. In the process of creating liquidity and transforming risk, the role of managers is very large in managing assets efficiently and effectively. Management's courage in taking risks will also determine the loan portfolio managed by the bank. The amount of bank liquidity created for the economy will be determined by the ability of managers to select optimal funding sources and appropriate allocations of the funds held.

The fifth finding shows that the larger the earning volatility, the smaller the liquidity creation. This evidence empirically affirms the conclusions of Horváth et al. (2013); Huang et al. (2018); Lei and Song (2013) suggesting evidence that earning volatility has a significant influence negatively on the creation of liquidity. Earning volatility is the instability of income and performance faced by banks in an economy. A bank would restrain the creation of liquidity and strengthen its capital structure when it was in an unstable performance and economic condition.

The sixth finding documents that the greater the credit risk, the higher the creation of liquidity. This finding is similar to the evidence from Andreou et al. (2016); Berger and Bouwman (2009); Distinguin et al. (2013); Horváth et al. (2013); Lei and Song (2013). The loan portfolio managed by a bank reflects the choice of opposites on bank performance and its risk in a specific strategy formulated by bank managers. It means they should harmonize the goal of maximizing profit and wealth with their appetite for risk. They achieve the goal by selecting the optimum source of financing and appropriate allocation of their capital. In addition, they should consider the pattern of risk on its asset and liability. This flow would eventually determine the amount of liquidity creation which involves long-term and short-term loans.

The seventh finding shows that bank size does not have an influence significantly on liquidity creation. This finding is contrary to the results of previous research which show that there is an influence from the size of the bank towards the creation of liquidity. For instance, Berger and Bouwman (2009) proved that size has a positive effect on larger banks, whereas the coefficient of size for smaller banks is negative and significant. In addition, Al-Khouri (2012); Andreou et al. (2016); Lei and Song (2013); Rauch et al. (2010) proved that size has a positive impact, while Horváth et al. (2013) report that size has a negative impact. However, the finding of this study is similar to the conclusion of Pana et al. (2010) which examined 189 commercial banks operating in the US which showed that relative size had no effect on the creation of liquidity for the overall sample, smaller bank sub-sample, and larger bank sub-sample. In addition, Ozturk Danisman (2018) concluded that for smaller banks, an increased size of the bank could increase the creation of their liquidity, whereas for larger banks an increased size could not change the creation of liquidity.

The eighth finding reinforces the evidence from Bouwman (2018) and Donaldson et al. (2018) which suggest that reserve requirement has a significant influence negatively on liquidity creation. The existence of liquidity problems in banking creates the need for liquidity regulation. For this reason, the Basel III agreement introduced the standardization of global liquidity. For instance, Basel III required banks to run their operation fulfilling larger quantities and higher quality capital. The creation of liquidity exposes banks to various risks including liquidity risk. To some extent, liquidity risk could be reduced by arranging liquid assets such as cash. The reduction is the main reason underlying the regulation of liquidity requirement which obliges banks to arrange the liquid assets at a minimum level. However, a higher liquidity requirement would reduce liquidity creation suggesting that achieving too high a liquidity requirement is not a good decision in terms of encouraging the creation of funding liquidity.

CONCLUSIONS

According to the analysis and discussion, we state the main conclusion that effective managerial ability can mediate the causality effect from bank capital to liquidity creation. It confirms the conclusions of indirect causality suggesting that the capital of a bank has an influence positively on effective managerial ability, and it has an influence positively on the creation of liquidity. In addition, bank capital and credit risk have an influence positively on the creation of liquidity. Furthermore, earnings volatility and reserve requirements have an influence negatively on the creation of liquidity. Meanwhile, bank size has no influence significantly on the creation of liquidity.

This study has several practical implications as follows:

- It is important for banks to comply with the minimum capital adequacy requirements and form additional capital above in accordance with their risk profile.
- Increased capital could strengthen financial stability and improve bank efficiency through a number of channels. It includes reducing the possibilities of financial difficulties, agency problems, and market instability forces.

- The banks should arrange their managers to have higher managerial abilities to achieve effectiveness in lending so that they can create more liquidity.
- The banks should pay attention that the existence of effective managerial ability in granting credit plays an important role in the causality effect from the capital of the bank towards the creation of liquidity. The role of managers is very large in managing assets efficiently and effectively.

The prospects for the development of this study can be created in the following sections:

- The number of samples should be extended to all banks in Indonesia and the region to compare the role of effective managerial ability in large and small banks in various countries globally.
- The data used should come from the off-balance sheet and on-balance sheet to produce the amount of liquidity created by banks.
- The other determinants of liquidity creation can be extended in the model so that topics such as this study can fully explain and broaden the body of knowledge.

ADDITIONAL INFORMATION

AUTHOR CONTRIBUTIONS

Conceptualization: Lestari Sri, Najmudin Najmudin

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Methodology: Ghozali Imam

Software: Ghozali Imam

Resources: Lestari Sri

Supervision: Ghozali Imam

Validation: Najmudin Najmudin

Investigation: Lestari Sri

Visualization: Lestari Sri

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ДОСЛІДЖЕННЯ ВПЛИВУ КАПІТАЛУ НА СТВОРЕННЯ ЛІКВІДНОСТІ БАНКІВ ШЛЯХОМ УПРОВАДЖЕННЯ ЕФЕКТИВНИХ УПРАВЛІНСЬКИХ ЗДІБНОСТЕЙ

Основною метою дослідження є поглиблення теоретичних підходів щодо впливу капіталу на підвищення ліквідності в банківських установах. Крім того, факт показав, що проблема надлишку ліквідності в індонезійських банках існувала ще з 1997 року. Для досягнення мети в статті запропоновано нову концепцію, що впливає із синтезу теорій ефективності.

Це дослідження є причиново-наслідковим зв'язком, що аналізує вибірку звичайних 10 комерційних банків, які мають найбільші активи в Індонезії станом на 31 грудня 2022 року. У цьому дослідженні запропоновані ефективні управлінські здібності, які лежать в основі концепції синтезу, що поєднує обидві теорії ефективності. Крім того, результати дослідницької моделі свідчать про те, що ефективна управлінська здатність при наданні кредиту є посередницьким фактором у взаємозв'язку між банківським капіталом і створенням ліквідності. Це дослідження починається з аналізу різних суперечностей у результатах емпіричних досліджень причиново-наслідкового зв'язку між банківським капіталом і створенням ліквідності. Одержані результати засвідчують значний вплив ефективних управлінських здібностей та доповнюють недостатньо переконливі висновки попередніх досліджень. Це підтверджує, що вискоелефективні управлінські здібності менеджерів при ухваленні рішення про надання кредиту можуть сприяти організуванню капіталу для створення більш високої ліквідності та отримання більшого доходу. Інші результати підтверджують, що на створення ліквідності позитивно впливає кредитний ризик і негативно – волатильність прибутку та вимоги до резервів.

Ключові слова: банківський капітал, створення ліквідності, ефективні управлінські здібності

JEL Класифікація: E51, M10, M41, M48