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DOES CORPORATE GOVERNANCE, LIQUIDITY, AND BANK SIZE AFFECT THE EFFICIENCY OF SHARIA BANKS IN INDONESIA?

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ABSTRACT

Introduction: The aim of this research was carried out in order to show whether corporate governance, liquidity, and business size might impact the efficiency of an Islamic bank in Indonesia prior to the merger of three Islamic banks, namely BNI Syariah, BRI Syariah, and Bank Syariah Mandiri, and from 2016 to 2021.

Methods: Sharia governance is measured using CEO duality proxies and board size, whereas liquidity is measured using DAR, bank size is calculated using the logarithm of total assets, and bank efficiency is measured using three proxies: managerial efficiency, expenses, and profits. The information was compiled from annual financial reports 2016–2021 of 14 Indonesian Islamic commercial banks. Multiple linear regression and testing of conventional hypotheses are used to process the data in SPSS 25.

Results: The results of the hypothesis testing indicate that factors affecting management effectiveness are board size, CEO duality, bank size, and liquidity.

Conclusion and suggestion: The observation period of the previous five years can be used in future studies to add measurement indicators to corporate governance factors. In order to acquire more varied results with distinct settings of bank efficiency between conventional banks and Islamic banks, study samples might be used that come from conventional banks in addition to these other choices.

INTRODUCTION

Measurement of efficiency in the banking industry currently has a very important role, given the economic instability that has occurred in Indonesia recently. The banking industry in the financial sector has so far dominated, but the banking world is not free from problems. High operational costs and inefficiencies are among the issues that arise.

High operational costs and inefficiencies can result in high loan interest rates and a high-cost economy (Sopiah, 2022). In research conducted by Ullah (2020) efficiency is divided into cost efficiency, management efficiency and profit efficiency. Management efficiency means how the company increases profits and adds value to the company in the eyes of stakeholders. This management efficiency means banks must cut operational costs and maximize employees to increase profits (Adhim, 2019). A bank can streamline costs if, under very low-cost conditions, it can produce maximum output quickly and under the same conditions (Burki & Niazi, 2010). According to Perera et al. (2008) in his research stated that the size of the bank is enormous, and with banks with dispersed ownership, it is relatively more costly effective.

A high operational efficiency level suggests that banks will perform better in allocating cash to encourage investment and economic growth (Marsondang et al., 2019). However, the 2020 OJK report revealed that banking efficiency in Indonesia is still relatively low, and the banking market structure is inefficient, prompting the OJK to intervene (OJK, 2021). Several bank efficiency conditions in Indonesia remain low because banks have not worked optimally. From 2012 to 2016, commercial banks did not operate worked because they were unable to maximize bank profits (Karimah et al., 2016). According to OJK sharia banking data statistics, the country's evolution of the sharia banking sector is relatively good, albeit slow. According to sharia banking statistics, the number of Sharia banks in December 2022 reached 13 sharia commercial banks, 33 sharia business units, and 210 sharia rural banks, with a total network of 3,231 offices across Indonesia (OJK, 2022). Based on this, a relationship exists between corporate governance, company size, and liquidity (Nainggolan et al., 2022).

One of the primary metrics for determining bank efficiency is corporate governance and bank size. Banks with good corporate governance can perform the intermediary role betweenbanks as well as possible; not only that, the size of the bank also greatly influences Efficiency (Marsondang et al., 2019). The role of banks as intermediary institutions has a significanturgency in the economic growth of a country. This is based on the fact that banks' contribution to microeconomics is a source of funding for business owners, companies and the community (Wiwoho, 2014). Banks with a high level of efficiency have a higher chance of survival and can satisfy all stakeholders compared to banks that have a lower level of efficiency and have significant negative consequences (Parasari, 2020). Bank efficiency is seen as an essential indicator in the supply of credit extended to companies from industries that rely on external costs. Based on this, it is necessary to monitor bank efficiency by bank owners, customers, regulatory agencies, and corporate investors (Tamatam et al., 2019).

Liquidity is another factor between the two contributors that impact financial stability which will later affect the failure of bank performance, the number of problem loans in the future, and the risks that will be taken (Sakouvogui, 2020). A liquidity crisis at a bank can be affected by the assets owned by the bank being smaller than its liabilities and the bank being unable to reserve cash in the short term (Sakouvogui & Shaik, 2019). According to Rahma (2021) liquidity proxied by the Financing to Deposit Ratio (FDR) ratio in Islamic banks in Indonesia decreased yearly from 2015 to 2019 with an FDR value in 2019 of 77.91%. A very efficient bank will have a sufficient capital buffer to protect the bank from liquidity pressures in the future. Furthermore, efficient banks have more risk and may have difficulty increasing their equity quickly, so that they will decide on a higher capital ratio and liquidity level than inefficient banks (Bitar et al., 2020).

This study was motivated by the question of whether corporate governance, liquidity, and company size had an impact on efficiency like an Islamic bank in Indonesia before the merger of three Islamic banks, namely BNI Syariah, BRI Syariah, and Bank Syariah Mandiri, and for the period 2016-2021. We are interested in researching to what extent these three variables affect the Efficiency of Islamic banks. In addition, this Islamic bank in Indonesia experiences rapid development every year, so we are interested in this area. In measuring corporate governance, we use several documents from (Islamic Financial Services Board, 2007) which state that sharia governance consists of 63 items. These are divided into six main categories, one of which is the board structure which we proxies with CEO duality and bord size. To measure bank efficiency here, it focuses on three types of efficiency: cost efficiency, management efficiency and profit efficiency.

The research has contributed in several ways to some of the empirical literature regarding Islamic corporate governance. Meanwhile, this research measures efficiency using three dimensions of bank efficiency: cost efficiency, management efficiency and profit efficiency. Both of our studies use one of the governance indicators developed by the IFSB. Ultimately, our research will add insight into the importance of good corporate governance in an organization for efficiency. This research is also beneficial for interested parties such as researchers, policymakers, capital market players and others because the three factors examined are critical in improving an organization's performance.

LITERATURE REVIEW

Agency Theory

Agency theory is the foundation used by an organization in running its business. This agency theory was introduced by Michael C. Jensen and William H. Meckling explaining that there is cooperation between two or more people, namely agents and principals, they have different roles in a company, where the principal acts as another member (agent) who carries out activities services based on the principle of delegation of authority (Ryan et al., 2017).

CEO duality is considered undesirable or desirable from its positive aspects in the form of company stability and inspiration for trust in company management. In contrast, the negative aspects can lead to behaviour that can sacrifice the interests of shareholders (Ozbek & Boyd, 2020). We examine how mechanisms affect corporate governance using perspectives from behavioural agency theory. The tests were conducted explicitly on the impact of CEO duality as a crucial intrinsic dimension of corporate governance that can wisely monitor the board. Based on classical agency theory demonstrates that board supervision can reduce agency costs for owners. As a result, the monitoring board is regarded as a positive mechanism that can improve a company's performance (Li & Yang, 2019).

In the banking world, liquidity is one of the essential functions of a bank. They will transfer their current assets into non-current liabilities or finance all non-current assets held with their current liabilities to generate liquidity. They will also usually carry out balance sheet activities or generate liquidity (Holmstrdm, 2009). In creating other sources of liquidity, banks will usually provide long-term loans to debtors using deposits from their customers. On the other hand, banks can also reduce liquidity by increasing cash flow by issuing long-term debt. Not handling liquidity can lead to bankruptcy (low liquidity level), which can destroy shareholders value (Ghadi, 2017). There are many measurements that can be used to determine the level of liquidity, in this study researchers used the debt-to-asset ratio (DAR) to measure liquidity (Roman & Sargu, 2015).

Their system of governance may have shielded them from the issues that traditional banks face (Abedifar et al., 2013). Their governance system might protect them from the problems faced by traditional banks (Abedifar et al., 2013). However, it is said that a bank cannot avoid corporate governance mistakes, due to the potential for mistakes between the board of directors and management, audit failures, and excessive risk taking by management (Ginena, 2014; Grais & Pellegrini, 2006). The findings also show that a decreased efficiency score indicates a bank's poor governance. This confirms that the CG of Islamic banking influences banking efficiency. With exemplary CG implementation, banks can increase their efficiency. The robustness of CG is essential for the functioning of the banking sector and the economy at large (Ben Zeineb & Mensi, 2018). The greater the bank's ability to generate profits or profitability, the greater the bank's ability to survive in competitive economic conditions. The size of the company is determined by its size. The higher the total assets, the greater the assets owned by the company (Adam et al., 2018).

Previous Study and Hypothesis

Corporate governance

Governance is a set of mechanisms from internal and external companies with the aim of aligning the interests of managers and shareholders (Borges Júnior, 2022). The existence of a governance mechanism can reduce the level of agency conflict between shareholders and managers to increase control over company operations and management. The existence of corporate governance is expected to reduce agency costs and increase the company's value (Srairi et al., 2022). Previous studies from Aslam & Haron (2020) stated that corporate governance is essential in solving agency-related problems and developing a culture of transparency and openness. In addition, board size can affect bank efficiency, which shows the number of boards in the company (Nyamongo & Temesgen, 2013). Research conducted by Mayur & Saravanan (2017) revealed that the number of boards that are too high could cause a bank's performance to decrease. The effect of board size on bank performance is also stated by Khan et al. (2023) who state that board size influences the success of Islamic banks in Pakistan.

Research conducted by Gupta & Mahakud (2020) states that there is a positive relationship between someone who holds the CEO position having broader abilities and insights about the environment surrounding the bank and making better decisions. Therefore CEO duality can have a significant positive impact on bank performance, so the hypothesis in this study can be supported. This finding is supported by other research, including Isik (2017) which investigated the relationship between CEO duality and the financial performance of Turkish banks. On the other hand, these findings differ from the results of research conducted by Naseem et al. (2020) and Gyamerah et al. (2020) which state that CEO duality hurts performance in banking.

H_{1a} : CEO duality has a positive effect on management efficiency in Islamic banks

H_{1b} : CEO duality has a has a positive effect on cost efficiency at Islamic banks

H_{1c} : CEO duality has a positive effect on profit efficiency Islamic banks

H_{1d} : Board size has a positive effect on management efficiency in Islamic banks

H_{1e} : Board size has a positive effect on cost efficiency at Islamic banks

H_{1f} : Board size has a positive effect on profit efficiency Islamic banks

Liquidity

Liquidity is the ability of an asset owned by a company to meet its short-term debt obligations. The more liquidity ratios a company owns, the more outstanding debt is paid (Darmawan, 2016) His research also shows that this liquidity has an effect on increasing profitability. This indicates that, according to agency theory, if banks make efficient use of their revenues, they can fulfil funds when depositors withdraw their cash, indicating that the bank now has good liquidity.This necessitates investors to pay close attention to how the company can use its assets to meet its obligations. Businesses that meet their

obligations indicate that they are in a liquid position. In contrast, if a corporation is illiquid, it signifies that its assets are insufficient to cover its liabilities (Mukaromah & Supriono, 2020).

A company's excellent liquidity value will minimize the risks investors get (Mercyana, 2020). Research conducted by Duho et al. (2020) states that this liquidity will impact a company's profitability. Not only that, greater cost efficiency can protect welfare losses (Adeabah & Andoh, 2020). Some empirical evidence states that liquidityhas a positive effect on the variant measure of cost inefficiency and a negative impact on the measure of cost efficiency (Ghadi, 2017). A bank that Efficient will also have a high level of liquidity, which illustrates that the bank can generate cash quickly, and high capital requirements can reduce cost efficiency. Furthermore, several other studies prove that this liquidity has a positive effect on bank efficiency, including research conducted by (Ghosh & Sanyal, 2019; Sakouvogui, 2020; Tumwine et al., 2018). However, several studies state the opposite, such as research from (Sahyouni & Wang, 2019; Sakouvogui & Shaik, 2019).

H_{2a} : Liquidity has a positive effect on management efficiency in Islamic banks

H_{2b} : Liquidity has a positive effect on cost efficiency in Islamic banks

H_{2c} : Liquidity has a positive effect on profit efficiency in Islamic banks

Bank Size

The total assets determine the company size at the end of the fiscal year. The larger the company, the more involved or interested the employees are, and the more they are the centre of attention. Big corporations are more likely to prioritize higher performance because they are subject to greater public scrutiny and hence must respond more publicly to stakeholder requests (Suwarno et al., 2017). Although the direction of influence israndom, bank size is an important factor for corporate profitability. According to modern economic theory, efficiency is intimately tied to economies of scale, implying that large organizations have excellent efficiency and profitability (Al-Harbi, 2019; Regehr & Sengupta, 2016; Siddik et al., 2017; Sufian & Habibullah, 2009). As a result, large banks are expected to generate higher profits than small banks (Yao et al., 2018). Both internal and external factors influence bank cost efficiency. Bank internal variables include bank size, capital adequacy or capital equity ratio (CAR), credit risk or non-performing loans (NPL), return on assets or return on assets (ROA), and bank core capital. Meanwhile, inflation and economic growth (GDP growth) are external bank variables (Apriyana et al., 2015; Kallel et al., 2019; Karimah et al., 2016).

Research conducted by (Apriyana et al., 2015; Kallel et al., 2019; Karimah et al., 2016) bank size positively contributes to bank cost efficiency. Research conducted by Ega

Firdausy (2016) states that bank size negatively impacts profit efficiency. Research by Adam et al. (2018) shows a positive sign of bank size on profit efficiency. Research conducted by Nainggolan et al. (2022) found that bank size, capital adequacy (CAR), credit risk (NPL), and small core bank groups have a significant effect onthe cost efficiency of banks in Indonesia.

H_{3a} : Bank size has a positive effect on management efficiency in Islamic banks

H_{3b} : Bank size has a positive effect on cost efficiency in Islamic banks

H_{3c} : Bank size has a positive effect on profit efficiency in Islamic banks

RESEARCH METHODS

This research was carried out with the aim of knowing the role of liquidity, bank size and corporate governance for Islamic banks in Indonesia. Empirically the research was conducted to measure the factors that influence the efficiency of banks in Indonesia (Srairi et al., 2022).

Based on data from OJK, in 2022, there will be 33 Islamic banks in Indonesia.This study considers all Islamic banks operating in Indonesia. Next, we chose Islamic banks with complete financial reports from 2016-2020. This process will produce a sample obtained from a population of 14 Islamic banks in Indonesia. This study uses secondary data by taking samples using the purposive sampling method with the following conditions (Ullah, 2020):

1. Islamic Banks in Indonesia operating from 2016-2020
2. Categorized as islamic commercial bank
3. Registered with the Financial Services Authority

In connection with the measurement of the Independent variable and the Dependent Variable, it can be explained in the following description:

Table 1. Indicators (Measurements) of Independent Variables

Independent Variable	Indicator
Corporate governance	1. CEO duality uses a dummy variable with a value of 0 if the CEO does not have multiple positions and 1 if the CEO has multiple positions 2. Board size is measured by the number of directors in one entity.
Corporate governance	Debt To Asset Ratio (DAR)
Bank size	The logarithm of the bank's total

Table 2. Dependent Variable Indicator (Measurement)

Variable dependent (Bank Efficiency)	Indicator
Management Efficiency	Average total assets divided by total revenue
Management Efficiency	Expenses to assets ratio
Profit Efficiency	Earnings Per Share (EPS)

RESULT AND ANALYSIS

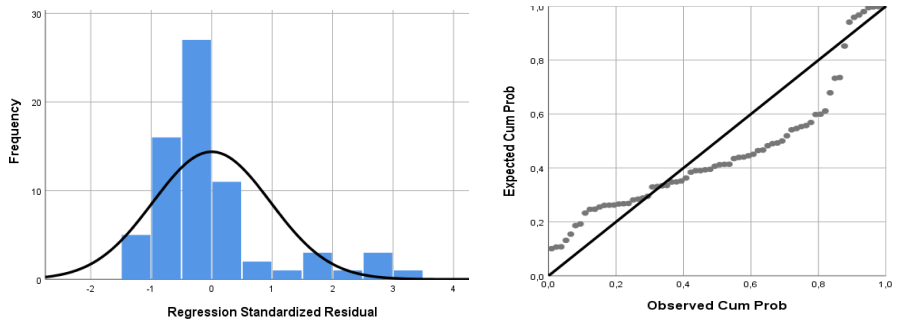

Figure 1. Classic Assumption Test

The bell-shaped curve above indicates that the information gathered for this research is normally distributed. According to Imam Ghozali (2011) states that the regression model is generally distributed if plotted data (dotted line) defining the accurate data following a diagonal line. The plot that follows the diagonal line is depicted in the image above.

Table 3. Multicollinearity Test

	Collinearity Statistics Cost Eff		Collinearity Statistics Manaj Eff		Collinearity Statistics Profit Eff	
(Constant)						
Size	0.646	1.547	0.646	1.547	0.646	1.547
Liquidity	0.986	1.014	0.986	1.014	0.986	1.014
Duality Ceo	0.98	1.02	0.98	1.02	0.98	1.02
Born Size	0.641	1.559	0.641	1.559	0.641	1.559

The basic tolerance multicollinearity test and the VIF are used to determine the multicollinearity test. According to Imam Ghozali (2011), a data does not exhibit multicollinearity symptoms when the tolerance value exceeds 0.100, and the VIF value < 10.00. from data, the tolerance value is greater than 0.100 and the VIF value < 10.00, maka dapat disimpulkan bahwa tidak ada gejala multikolinearitas karena nilai tolerance > 0,100 and VIF value < 10,00. it can be concluded that there are no symptoms of multicollinearity.

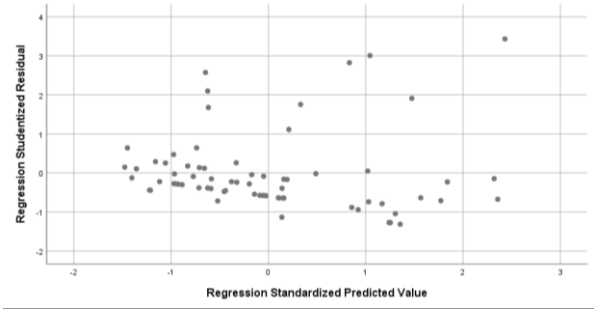

Figure 2. Heteroscedasticity test

According to Imam Ghozali (2011) If there is no clear pattern (wavy, widened, then narrowed) in the scatterplot image and the dots are spread above. Below the number 0 on the Y axis, heteroscedasticity does not exist. The bubbles in the image below do not form a pattern and spread up and down the y-axis, indicating that heteroscedasticity does not exist.

Table 4. Autocorrelation test

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson	
1	,322a	0.104	0.049	0.04113	0.903	Dependent Variable: COST EFF.
	,459a	0.211	0.163	53.568	0.851	Dependent Variable: MANAG. EFF.
	,116a	0.013	-0.047	605.91051	1.01	Dependent Variable: PROFIT EFF.
Predictors: (Constant), Born Size, Liquidity, Duality Ceo, Size						

If the Durbin-Watson value is between -2 and +2, the data is declared to have no symptoms. According to the table below, the DW value ranges between -2 and +2. As a result, there is no evidence of autocorrelation.

MULTIPLE LINEAR REGRESSION TEST

1. Individual Parameter Testing (t-test)

The first test was conducted on corporate governance. Based on the results of testing the hypothesis, the sig is known. = 0.921 (higher than significance a = 0.05) of CEO duality on management efficiency; this shows that CEO duality does not affect management efficiency. These results indicate that the greater the value of CEO duality, the lower the level of management efficiency in Islamic banks in Indonesia. A significance value of 0.860 for CEO duality on cost efficiency and 0.921 for CEO duality on profit efficiency demonstrates the same result. A significance value of 0.035 (less than q = 0.05) of board size on cost efficiency indicate different results; thus, it can be concluded that the larger the board size, the higher the cost efficiency level in Islamic banks in Indonesia. While board size does not affect management efficiency, the same is true for board size, which does not affect profit efficiency.

The second test is carried out on liquidity. Based on the results of testing the hypothesis, it is known that the level of liquidity influences management efficiency. It happens because when the value of liquidity is higher, management efficiency will increase in Islamic banks in Indonesia. The influence of liquidity on cost efficiency and profit efficiency is not affected by liquidity. These results follow previous research conducted by Sakouvogui (2020) and Sakouvogui & Shaik (2019) which states that an increase in the liquidity ratio will negatively impact the value of cost efficiency.

The size of the bank is the subject of the third test. Based on the results of testing the hypothesis, it is known that bank size affects cost efficiency. These results are obtained from testing the hypothesis, which shows the value of bank size with a significant

value=0.010 (less than the significance value a = 0.05), and it can be concluded that the higher the level of Bank size, the greater the cost efficiency of Islamic banks in Indonesia. These results are from previous research conducted by Nainggolan et al. (2022) which shows that bank size significantly affects cost efficiency. The significance value of 0.946 indicates that the bank's size harms management efficiency, while the significance value of 0.933 indicates that the bank's size has no impact on profit efficiency.

2. Simultaneous Testing (F-Test)

Table 5. F-Test

ANOVA[a]							
	Model		Sum of Squares	df	Mean Square	F	Sig.
Dependent Variable: Cost Eff.	1	Regression	0.013	4	0.003	1.884	,124[b]
Dependent Variable: Manag. Eff.	1	Regression	49912.369	4	12478.092	4.348	,004[b]
Dependent Variable: Profit Eff.	1	Regression	325165.319	4	81291.33	0.221	,926[b]
Predictors: (Constant), Born Size, Liquidity, Duality Ceo, Size							

Based on the table above, if sig. < 0.05, the independent variable (X) has a significant effect on the dependent variable (Y) (Ghozali, 2016). If the F_{ount} value > F_{Table}, then the independent variable (X) simultaneously affects the dependent variable (Y) (Wiratna, 2015).

The table above shows that the significance value for corporate governance, liquidity and bank size on cost efficiency is 0.124 > 0.05 and F_{ount} value 1.884 < F_{Table} 2.513. It proves that H_0 is accepted and H_1 is rejected. It means there is no simultaneous effect of corporate governance, liquidity and bank size on cost efficiency. Likewise, the effect of variable X on profit efficiency has no effect simultaneously because the significance value is 0.926, while the significance value for corporate governance, liquidity and bank size on management efficiency is 0.004 < 0.05. It proves the simultaneous effect of corporate governance, liquidity and bank size on management efficiency.

CONCLUSION

It proves that H0 is accepted and H1 is rejected. It means there is no simultaneous effect of corporate governance, liquidity and bank size on cost efficiency. Likewise, the effect of variable X on profit efficiency has no effect simultaneously because the significance value is 0.926, while the significance value for corporate governance, liquidity and bank size on management efficiency

is 0.004 < 0.05. It proves the simultaneous effect of corporate governance, liquidity and bank size on management efficiency.

The findings from our research have implications for Islamic banks and policymakers, especially in terms of efficiency. They must improve governance practices, primarily through CEO duality and board-size disclosures. They also have to pay attention to the bank's size and liquidity to create Efficiency because this efficiency will impact the performance of Islamic banking. Further research that can be developed from this study is to examine a bank's efficiency in governance, focusing on CEO duality and bank size and can use other governance measures.

Researchers can also add other research samples, such as conventional banks so that the results obtained are more diverse with contexts that can compare the Efficiency between Islamic banks and traditional banks to determine what factors will affect their efficiency. Future research can also use the observation period in the last 5 years.

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