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EFFECT OF FINANCIAL PERFORMANCE ON COST EFFICIENCY USING STOCHASTIC FRONTIER APPROACH (SFA)

AT SHARIA COMMERCIAL BANKS IN INDONESIA

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Abstract

Increased efficiency occurs when the output or output level is in production at a lower cost. The Assessment of Islamic Bank's financial performance can be known through financial statements. Also, the Ratio of BOPO and NPL (NPF) is higher. In measuring the efficiency of banks, often using BOPO ratios. Measurement of this research was carried out in two research stages (First Stage and Second Stage). In the size of the Bank into three determining factors that affect the efficiency of banking profit (1) Bank Size Ratio (asset log); (2) CAR Ratio; (3) NPF Ratio; (4) ETA ratio. The purpose of this research is to evaluate the level of cost efficiency by using measurement methods (SFA) at Sharia Commercial Banks in Indonesia; and to test the significance of the effect of Bank Size, Capital, Credit Quality, and Asset Structure simultaneously and partially on the Level of Cost Efficiency in Sharia Commercial Banks in Indonesia. Types of casal research. Sampling techniques carried out are using purposive sampling techniques. The sample population is Sharia Commercial Banks in Indonesia from 2014 to 2018. Data analysis techniques using Multiple Linear Regression Analysis. Based on the analysis results, it can be concluded that the Bank Size, Capital, Credit Quality, and Asset Structure simultaneously have a significant influence on the Level of Cost Efficiency in Sharia Commercial Banks in Indonesia. While The Bank Size Variable partially has a significant favorable influence on the Level of Cost Efficiency in Sharia Commercial Banks in Indonesia. However, capital variables partially do not have a significant favorable influence on the Level of Cost Efficiency in Sharia Commercial Banks in Indonesia; Credit Quality partially has an insignificant negative influence on the Level of Cost Efficiency in Sharia Commercial Banks in Indonesia; asset structure partially has a significant favorable influence on the Level of Cost Efficiency in Sharia Commercial Banks in Indonesia.

Keywords: Bank Size, Capital, Credit Quality, Asset Structure, Cost Efficiency Level

1. Introduction

In maintaining its existence, business conditions in the banking sector are increasingly dynamic and become one of the challenges that must be faced. To strengthen Indonesia's banking sector, the Government expects to create a resilient banking system in the face of competition and ultimately create financial system stability.

Efficiency is a fundamental concept in the economic field as a measure of success in resource allocation. Efficiency is the ratio between the number of resources or costs that must be

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sacrificed to achieve an activity's results. Efficiency is the best comparison between input and output or (result between the source of profit used. Increased efficiency occurs when the output or output level is in production at a lower cost.

The Assessment of Islamic Bank's financial performance can be known through financial statements. Financial statements consist of financial position statements, profit and loss statements, cash flow statements, and equity statements ratio is a tool used to explain a particular relationship between factors from one to the other of a financial statement. Financial ratios in banks consist of four types: liquidity ratio, average/solvency ratio, activity ratio, and profitability ratio. The Bank needs to know the efficiency level in its operational activities and understand the factors that influence it to maximize profit receipts and minimize expenses. This motivated the author to examine the determining factor of efficiency by using the Stochastic Frontier Approach (SFA) to measure Sharia Commercial Banks' profit efficiency in Indonesia. Also, the Ratio of BOPO and NPL (NPF) is higher, indicating the need to increase operational bank management efficiency and increase the amount of Financing channeled by Indonesian Shia banks. BOPO has the farthest position difference between Sharia banking and the national banking average of the four ratios. Therefore, this should be of particular concern to Sharia banking in Indonesia. In measuring the efficiency of banks, often using BOPO ratios. Because BOPO is simply a comparison between operating expenses and operating income of a bank, this research's measurement was carried out in two stages of research (First Stage and Second Stage). At the First Stage, a measurement will be taken on profit efficiency using the Stochastic Frontier Approach (SFA) method at sharia commercial banks in Indonesia. The Second Stage will be done analysis using Multiple Regression Analysis (MRA) to determine what factors can affect the old efficiency level in sharia commercial banks in Indonesia. Stochastic Frontier Approach (SFA) method is a method to measure efficiency through a parametric approach.

The size of the Bank has a negative influence significantly; the Bank is efficient. The second determining factor affecting profit efficiency is the Bank's Capital the size of the Bank has a negative influence, and the Bank is efficient. The CAR ratio measures the second determining factor. The third determining factor is credit risk as measured by the quality of credit provided as measured by the NPF ratio. The last determining factor used is the asset structure to be measured through the ETA ratio.

The reason for determining independent variables against dependent variables is taken from previous research that there are inconsistent results, so it is still necessary to re-research the variables. To determine the determining factors of cost efficiency at banks to determine the right strategy, immensely to improve profit efficiency in sharia commercial banks in Indonesia.

2. Library Review

2.1 Sharia Bank

Sharia banks refer to bank financial institutions that operate using Islamic sharia principles, namely the Quran and Al-Hadi. According to Islam, the concept of maintaining wealth aims to make the property owned halal and following the wishes of the absolute owner of the property,

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Namely Allah SWT. In the word of Allah SWT, the existence of accounting and its function is explained in the Qur'an surah Al-Baqarah verse 282, namely: "O you who believe, when you are not in cash for a specified time, you should write it down. Banking Efficiency Measurement.

Efficiency is a parameter to assess how a bank can optimize its resource management. Based on inputs and outputs, three frequently used approaches include asset approach, production approach, and intermediation approach. (Haded et al., in Arfinda & Demi, 2014).

It is both conventional and expedient to divide the Method section into labeled subsections. These usually include a section with descriptions of the participants or subjects and a section describing the study's procedures. The latter section often includes a description of (a) any experimental manipulations or interventions used and how they were a delivered-for example, any mechanical apparatus used to deliver them; (b) sampling procedures and sample size and precision; (c) measurement approaches (including the psychometric properties of the instruments used); and (d) the research design. If the study's design is involved or the stimuli require detailed description, additional subsections of subheadings to divide the subsections may be warranted to help readers find specific information.

Include in these subsections the information essential to comprehend and replicate the study. Insufficient detail leaves the reader with questions; too much detail burdens the reader with irrelevant information. Consider using appendices and a supplemental website for more detailed information.

2.2 Stochastic Frontier Analysis (SFA)

According to (Rafika & Naila, 2015), Frontier 4.1 is software that estimates cost functions using the data panel method on the Stochastic Frontier Approach (SFA) parametric approach. The standard stochastic cost frontier function has the following common form (log):

$$lnC_i = f(\ln X_{ii}, \ln Y_{ki}) + e_i$$

Where Ci is the total cost of the bank n; Xji is j input on n bank; Yji is the Bank's output n; ei is an error. ei consists of 2 functions, namely:

$$e_i = u_i + v_i$$

ui is a controllable error factor, and vi is a random error factor that cannot be controlled. It is assumed that normal distributed v $N(0, \sigma^2_v)$ and u distributed half-normal, $|N(0, \sigma^2_v)|$ where u_{it} $u_{it} = (u_i \exp(-h(t-T))^3)$ and h are the parameters to be estimated.

Cost efficiency is a derivation of a cost function. By using the form of a stochastic cost frontier equation, the cost equation can be written as follows:

$$lnC = f(w, y) + lnu + ln v$$

C is the total cost or cost efficiency; w is the number of inputs; y is the output, and u and v are errors. Thus, cost efficiency can be written as follows:

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$$CEFn = \frac{Cmin}{Cn} = \frac{\exp|fc(wn,yn) + \ln(Ucmin)|}{\exp|fc(wn,yn) + \ln(Ucn)|} = \frac{UCmin}{UCn}$$
(2.2)

2.3 Banking Financial Ratio

Factors that are suspected to affect efficiency include the size of the Bank (log Asset), Capital (CAR), credit quality (NPL), and income (ETA).

2.4 Bank Size (Log Asset)

Total assets are selected proxy of the company's size variable. This is because total assets are more stable and representative in showing the company's size compared to market capitalization and sales, which are heavily influenced by demand and supply. Here is the calculation formula of the asset log

2.5 Capital Adequacy ratio (CAR)

This ratio aims to measure the efficiency of banks in running their activities. This ratio can also be a measuring tool to look at the Bank's wealth to see efficiency for the Bank's management. CAR measurement aims to ensure that banks can absorb losses arising from activities carried out. The known regulatory ratio is the minimum ratio of 8%. This connects the Bank's Capital with the risk weighting of the assets owned. Bank Indonesia Circular Letter No.6/23/DPNP dated 31 May 2004 formulates car calculation as follows:

Capital Adequacy Ratio (CAR) =
$$x \frac{\text{Modal Bank}}{\text{Total ATMR}} 100\%$$
 (2.4)

2.6 Non-Performing Financing (NPF)

High non-Performing Financing will increase the cost so that it has the potential to lose the Bank. The higher this ratio, the worse the Bank's credit quality, which causes the greater the amount of non-performing loans, and therefore the Bank must bear the losses in its operations, resulting in a decrease in the profit obtained by the Bank. Bank Indonesia Circular Letter No.3/30/DPNP dated 14 December 2001 formulates the calculation of NPF as follows:

Non-Performing Financing (NPF) =
$$\frac{Non\ Performing\ Loan}{Total\ loan} \times 100\%$$
 (2.5)

2.7 Equity to Asset Ratio (ETA)

Equity to Asset Ratio (ETA) includes a solvability ratio used to measure whether the capital it owns is adequate or the extent to which the decline in total incoming assets can be covered by capital equity. This ratio is formulated by:

Equity to Asset Ratio (ETA) =
$$\frac{Equity \ Capital}{Total \ Asset} \times 100\%$$
 (2.6)

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2.8 Effect of Free Variables on Bound variables

The effect of free variables (Log Asset, CAR, NPF, and ETA) on bound variables (Efficiency Level) can be known from the following statement:

2.8.1 Effect of Bank Size on Efficiency Rate

As measured by Log Asset, Bank size has a positive influence on efficiency level because if Log Asset increases, there has been an increase in the number of assets owned by the Bank. Banks with more considerable assets will have better cost efficiencies than banks with small assets (Mongid, 2016).

2.8.2 The influence of capital on capital efficiency is measured by using CAR has a positive influence on the Level of Efficiency because if CAR has increased, indicating that there has been an increase in bank capital with a percentage more significant than the percentage increase in the total ATMR, so that the risk of loss can be closed with capital, as a result

Of which input is efficient so that the Level of Efficiency also increases. The Capital Adequacy Ratio (CAR) indicates capital for the Bank's real risk of assets. (Muazaroh et al., 2012) recorded a positive relationship between CAR and efficiency ratio.

2.8.3 The Effect of Credit Quality on Efficiency

Credit Quality is measured by using NPF has a negative influence on the Efficiency Level, because if the NPF increases, it indicates that there has been an increase in non-performing Financing with a percentage more significant than the percentage increase in total credit. The increase in problematic Financing will lead to increased costs for the recovery of the Financing. This indicates the occurrence of cost inefficiencies (Widiarti et al., 2015). The higher the NPF ratio, the worse the quality of Financing in a bank because the greater the amount of non-performing Financing causes bank losses, thereby affecting the decrease in profit obtained by the Bank. So it can be said that the fund distribution activities are part of the Bank's role as an inefficient intermediation institution (Fadilah, 2018).

2.8.4 Effect of Asset Structure on Efficiency

Asset Structure measured using ETA has a positive influence on efficiency. This is because if ETA increases, it indicates that there has been an increase in total productive assets owned by banks with a percentage more significant than the percentage increase in total assets. This will undoubtedly increase the opinion of banks and gradually decrease the presentation of unproductive bank assets. The decline in unproductive assets will certainly lower bank costs (Mongid & Muazaroh, 2017).

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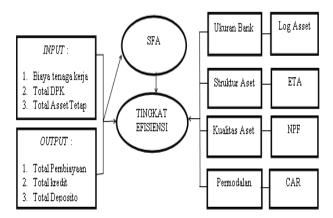


Figure 1. Frame of Mind

2.9 Research Hypotheses

- 1. Bank Size, Capital, Credit Quality, and Asset Structure significantly influence the Level of Cost Efficiency in Sharia Commercial Banks in Indonesia.
- 2. The Bank's partial size has a significant favorable influence on the Level of Cost Efficiency in Sharia Commercial Banks in Indonesia.
- 3. Capital partially has a significant positive influence on the Level of Cost Efficiency in Sharia Commercial Banks in Indonesia.
- 4. Credit Quality partially negatively influences the Level of Cost Efficiency in Sharia Commercial Banks in Indonesia.
- 5. The Asset Structure partially has a significant positive influence on the Level of Cost Efficiency in Sharia Commercial Banks in Indonesia.

3. Method

This research's design explains the type of research done—the type of research objectives included in this type of causal research.

3.1 Research Variable Efficacy Identify

Based on research theory and hypothesis, the variables used include free variables (X), namely Bank Size, Capital, Credit Quality and Asset Structure, and bound variables (y), which is the level of Cost Efficiency. The free variables and variables tied to this study are:

- a) Variable free (X)
- Bank Size symbolized by X1
- Capital symbolized by X2

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- Credit Quality is symbolized by X3
- Asset structure symbolized by X4
- b) Bound Variables (Y)

The variable used in this study is the level of cost efficiency symbolized by (Y).

3.2 Operational Definitions and Variable Measurement

3.2.1 Level of Cost Efficiency

Is a comparison between input and output efficiency owned by Sharia Commercial Banks with percent units and to measure this ratio using the formula:

$$lnC = f(w, y) + lnu + ln v.$$
(3.1)

C is the total cost or cost efficiency; w is the number of inputs; y is the output, and u and v are errors.

3.2.2 Bank Size

Bank size is measured by using log assets, which is the result of the natural logarithm of total assets owned by Sharia Commercial Banks and to measure this ratio using the formula:

$$log Asset = Ln Total Assets (3.2)$$

3.2.3 Capital

Capital is measured by proxy Capital Adequacy Ratio (CAR), which is a comparison between the total bank capital to the total Risk-Weighted Assets (ATMR) owned by Sharia Commercial Banks with a per cent unit and to measure this ratio using the formula:

$$Adequacy\ Ratio\ (CAR) = \frac{Bank\ Capital}{Total\ ATMR} \times 100\%$$
 (3.3)

3.2.4 Credit Quality

Credit Quality is measured using Non-Performing Financing (NPF) proxies, which is a comparison between total non-performing Financing and total financing loans owned by Sharia Commercial Banks percent unit and to measure this ratio using the formula:

$$\frac{Non \, Performing \, Loan}{Total \, loan} \times 100\% \tag{3.4}$$

3.2.5 Asset Structure

Asset structure is proxied with ETA, which is a comparison between the total capital to total assets owned by Sharia Commercial Banks with percent units and to measure this ratio using the formula:

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$$\frac{Equity\ Capital}{Total\ asset} \times 100\% \tag{3.5}$$

3. 3 Population, Sample, and Sampling Techniques

The population in this study was Sharia Commercial Bank in Indonesia from 2014 to 2018.

Samples used by some population members selected to be sampled are PT. Bank BNI Syariah, PT. Bank Mega Syariah, PT. Bank Muamalat Indonesia, PT. Bank Syariah Mandiri.

Sampling techniques are carried out using purposive sampling techniques.

3.4 Data Analysis Techniques

3.4.1 Multiple Linear Regression Analysis

Regression analysis is performed to determine the direction and amount of free variable influences on bound variables by using the following multiple linear regression formulas:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + ei$$

Description:

Y = Efficiency Level

 $X_1 = Bank Size$

 $X_2 = Capital$

 X_3 = Credit Quality

 X_4 = Asset Structure

 $\alpha = Constant$

 β_1 - β_4 = Regression coefficient

ei= Disruptive factor outside the model

4. Results

4. 1 Linear Regression Analysis

Analysis techniques in this study using multiple linear regression, calculation results with the help of computer programs SPSS, and obtained the following results:

Table 1. Multiple Linear Regression Analysis

№.	Variable	Regression	Std. Error	Partial Correlation	
		Coefficient		R	\mathbf{r}^2
1.	Constant	-4.000	0.963		
2.	X ₁ (Bank Size)	0.239	0.048	0.495	0.2450
3.	X ₂ (Capital)	-0.002	0.014	-0.019	0.0004
4.	X ₃ (Credit Quality)	-0.005	0.018	-0.031	0.0010
5.	X ₄ (Asset Structure)	0.049	0.015	0.345	0.1190

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Based on the table above, obtained multiple linear regression equations as follows:

$$Y = -4,000 + 0.239 X1 - 0.002 X2 - 0.005 X3 + 0.049 X4$$

The equation above can be explained as follows:

- a) The multiple linear regression equation shows an o (constant) value of -4,000 and positively. The value means that if the other four free variables are Bank Size, Capital, Credit Quality, and Asset Structure equal to 0 (zero) or constant, then the Cost Efficiency Rate is -4,000. β
- b) Bank size regression coefficient (X1) = 0.239. The positive regression coefficient value of bank size indicates a direct relationship with the Cost Efficiency Rate meaning that if the Bank's size is increased by one unit, then the Cost Efficiency Rate will increase by 0.239, assuming other independent variables are constant. The partial r2 value for the bank size variable of 0.2450 means that the bank size variable can explain the variable Cost Efficiency Rate of 24.5%.
- c) Capital regression coefficient (X2) = -0.002. The negative capital regression coefficient value indicates a relationship that is not in line with the Cost Efficiency Level. If capital is added one unit, then the Cost Efficiency Level will fall by 0.002, assuming other independent variables are constant. The partial r2 value for the Capital variable of 0.0004 means that the Capital variable can explain the Variable Cost Efficiency Rate of 0.04%.
- d) Credit Quality Regression Coefficient (X3) = -0.005. The Credit Quality regression coefficient's negative value indicates a relationship that is not in the Cost Efficiency Level direction. If credit quality is added one unit, then the Cost Efficiency Level will fall by 0.005, assuming other independent variables are constant. The partial r² value for the Credit Quality variable of 0.0010 means that the Credit Quality variable can explain the Variable Cost Efficiency Rate of 0.1%.
- e) Asset Structure regression coefficient (X4) = 0.049. The positive value of asset structure regression indicates a direct relationship with the Cost Efficiency Level, meaning that if the Asset Structure is added one unit, then the Cost Efficiency Level will increase by 0.049 assuming other independent variables are constant. The partial r2 value for the Asset Structure variable of 0.1190 means that the Asset Structure variable can explain the Variable Cost Efficiency Rate of 11.9%.

The double determination coefficient value or R2 is used to measure how far the model's ability to describe variable variations is bound. The result of the SPSS calculation obtained R2 value = 0.260, which means the 26% Cost Efficiency Rate can be explained by variable Bank Size, Capital, Credit Quality, and Asset Structure. While the remaining 74% were influenced by other variables outside the model studied.

4.2 Hypothesis Test

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4.2.1 Partial Test (T-Test)

To determine the effect of each partial or individual free variable on bound variables used t-test analysis. Then based on the results of the t-test according to the calculation by using the help of SPSS software can be seen in the attachment as in the following table:

Table 2. Test T

Model		Unstandardized Coefficients		Standardized Coefficients	Q	Sig
		В	Std. Error	Beta		
1	(Constant)	-4.000	.963		-4.153	.000
	Bank Size	.239	.048	.967	4.938	.000
	Capital (CAR)	002	.014	033	161	.873
	Credit Quality (NPF)	-0.005	.018	028	271	.787
	Asset Structure (ETA)	.049	.015	.776	3.182	.002

a. Dependent Variable: Efficiency Level

Based on calculations using SPSS obtained results that:

- a) significant level value of 0.000, where the level is significantly smaller than the alpha level of 0.05, so it is concluded that the Bank's size affects the Level of Cost Efficiency.
- b) Significant level value of 0.873, where the significant level is greater than the alpha level of 0.05, concludes that capital does not affect the Level of Cost Efficiency.
- c) Significant level value of 0.787, where the level is significantly greater than the alpha level of 0.05, is concluded that Credit Quality does not affect the Level of Cost Efficiency.
- d) Significant level value of 0.002, where the significant level is less than the alpha level of 0.05, concludes that the Asset Structure affects the Level of Cost Efficiency.

4.2.2 Overall Test

To determine the relationship or effect of free variables simultaneously or entirely on bound variables used test F in Table 2 presents a variance analysis of the relationship simultaneously or in its entirety.

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Table 3. Simul	ltaneous Influence	Analys	sis Results
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ANOVA ^b						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1.197	4	.299	6.576	.000a
	Residual	3.412	75	.045		
	Total	4.608	79			

a. Predictors: (Constant), Asset Structural (ETA), Credit Quality (NPF), Bank Size, Capital (CAR

Based on calculations using SPSS obtained a significant level value of 0.000, where the significant level is less than the alpha level of 0.05, variable Bank Size, Capital, Credit Quality, and Asset Structure together significantly influence the Level of Cost Efficiency.

4.3 Multiple Correlation Coefficient Analysis (R) and Multiple Determination (R^2)

The double correlation coefficient value (R) indicates how closely the relationship between free variables (Bank Size, Capital, Credit Quality, and Asset Structure) and bound variables (Cost Efficiency Rate). The correlation coefficient value is 0.510. The value indicates that the variable relationship of Bank Size, Capital, Credit Quality, and Asset Structure with variable Level of Cost Efficiency is medium.

The double determination value of 0.260 indicates the influence of Bank Size, Capital, Credit Quality, and Asset Structure on variable Profit Efficiency Rate of 26%, while the remaining 74% is influenced by variables other than the four variables studied.

5. Discussion

5.1 Simultaneous influence of Bank Size, Capital, Credit Quality, and Asset Structure on Cost Efficiency

The F test results showed that all independent or free variables (Bank Size, Capital, Credit Quality, and Asset Structure) entered into the model have a joint influence on dependent variables (cost efficiency level), meaning that this research model is a fit model.

5.2 Partial Effect of Bank Size on Cost Efficiency Rate

Based on the statistical test, there is a significant influence of the Bank Size on cost efficiency. This means that in this study, the change in bank size impacts the level of cost-efficiency. This is allegedly based on descriptive data showing that the increase in cost-efficiency value offsets the Bank's assets' development. From 2014 to 2016, the Bank's size increased while the level of cost

b. Dependent Variable: Efficiency Level

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efficiency fluctuated. This means that the increase in assets makes the level of cost efficiency increasing.

The results of this study do not support the study result negatively affects the level of banking efficiency.

5.3 Partial Impact of Capital on Cost Efficiency

Based statistical tests showed no significant influence of capital on the level of cost-efficiency. This means that the change in the capital does not impact the level of cost-efficiency in this study. This is allegedly based on descriptive data showing that the increase in cost-efficiency value does not balance bank Capital's development. From 2014 to 2016, capital increased while the level of cost efficiency fluctuated. This means that the increase in assets makes the level of cost efficiency increasing. High profit certainly indicates the company's good prospects so that investors still consider other factors before investing their shares. The direction of the relationship of capital variables with the level of cost efficiency is negative, where the higher the capital of a company, the lower the level of cost-efficiency.

This study's results do a positive relationship between car ratio and efficiency. Nevertheless, the same (Perwitaningtyas, G. A. Pangestuti, 2015) found that CAR has a negative and significant effect on efficiency.

5.4 Partial Effect of Credit Quality on Cost Efficiency

Based on statistical tests, there is a significant influence of Credit Quality on the level of cost-efficiency. This means that the change in Credit Quality does not impact the level of cost-efficiency in this study. This is allegedly based on descriptive data showing that an increase in cost-efficiency value does not offset bank Credit Quality's development. From 2014 to 2016, Credit Quality improved while the level of cost efficiency fluctuated. This means that the increase in assets makes the level of cost efficiency decrease. High profit certainly indicates the company's good prospects so that investors still consider other factors before investing their shares.

5. 5 Partial Effect of Asset Structure on Cost Efficiency

Based on statistical tests, there was a significant influence of the Asset Structure on the level of cost-efficiency. This means that in this research, changes in asset structure impact the level of cost-efficiency. This is allegedly based on descriptive data showing that the development of the Bank's Asset Structure is offset by the increase in cost-efficiency value. From 2014 to 2016, the asset structure improved while cost-efficiency fluctuated. This means that the increase in assets makes the level of cost efficiency increasing. High profit certainly indicates the company's good prospects so that investors still consider other factors before investing their shares. The direction of variable asset structure relationship with cost efficiency is positive, where the higher the Asset Structure of a company, the higher the level of cost-efficiency.

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6. Conclusion

- 1. Bank Size, Capital, Credit Quality, and Asset Structure significantly influence the Level of Cost Efficiency in Sharia Commercial Banks in Indonesia. This proves hypothesis I, which reads, "Bank Size, Capital, Credit Quality and Asset Structure simultaneously have a significant influence on The Level of Cost Efficiency in Sharia Commercial Banks in Indonesia."
- 2. Bank Size Variable partially has a significant favorable influence on the Level of Cost Efficiency in Sharia Commercial Banks in Indonesia. It proves hypothesis II, which reads "Bank Size partially has a significant positive influence on The Level of Cost Efficiency in Sharia Commercial Banks in Indonesia" is proven.
- 3. Capital partially does not significantly influence the Level of Cost Efficiency in Sharia Commercial Banks in Indonesia. This proves hypothesis III, which reads, "The Bank's size partially has a significant positive influence on the Level of Cost Efficiency in Sharia Commercial Banks in Indonesia," is not proven.
- 4. Credit Quality partially negatively influences the Level of Cost Efficiency in Sharia Commercial Banks in Indonesia. This proves that hypothesis IV, which reads, "The size of the Bank partially has a significant positive influence on the Level of Cost Efficiency in Sharia Commercial Banks in Indonesia," is not proven.
- 5. The Asset Structure partially has a significant favorable influence on the Level of Cost Efficiency in Sharia Commercial Banks in Indonesia. This proves hypothesis V which reads, "Bank Size partially has a significant positive influence on The Level of Cost Efficiency in Sharia Commercial Banks in Indonesia" is proven.

7. Suggestion

Suggestions that can be given by researchers based on the results of this study are as follows:

- 1. The results showed that the size of the Bank, Capital, credit quality, and asset structure had a significant effect on the Level of Cost Efficiency; therefore, the management of the company was advised to maintain or improve the consistent news of existing financial statements in establishing the Level of Cost Efficiency.
- 2. Furthermore, researchers who take similar themes can develop research models by expanding the population and research samples, extended research periods, and free variables based on sharia commercial banks' internal and external factors. So it is expected that the research model can contribute higher to explain the variation in the production efficiency of Sharia banks.

Further researchers who will use management performance to measure efficiency performance should consider measuring instruments to provide more detailed information.

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