

## Analysis of the Comparison of Profitability Determinant Factors between Sharia Commercial Bank and Conventional Commercial Bank in Indonesia

Eva Sriwiyanti<sup>1</sup>, Risma Nuraini Munthe<sup>2</sup>

<sup>12</sup>(Department of Accounting, Faculty of Economics, Universitas Simalungun, Indonesia)

Corresponding Author: Eva Sriwiyanti

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**Abstract:** Bank is a business entity that collects funds from the public in the form of savings and distributes them to the public in the form of credit and or other forms in order to improve the lives of many people. People with excess funds can save their funds in banks, while people who need funds can make loans to banks. Thus, banks have an important role in mobilizing funds that can facilitate economic activities in a country. Sharia Commercial Bank and Conventional Commercial Bank have in common, especially in the technical side of money receipts, transfer mechanisms, computer technology used, general conditions of obtaining financing, financial statements, and so on. There are many fundamental differences between the two concerning the legal aspects, organizational structure, the business being financed, and the work environment. This study uses a model that aims to find out the main problem, namely regarding the comparison of determinants of profitability in Sharia Commercial Bank and Conventional Commercial Bank. Sample selection using purposive sampling method, obtained 12 sample banks including Sharia Commercial Bank and Conventional Commercial Bank. Based on the results of analysis and data processing with wilcoxon sign rank test shows a significant difference in profitability as measured by return on asset (ROA) between Sharia Commercial Bank and Conventional Commercial Bank. This study was tested with an independent sample t-test proving that simultaneously there were no differences in the determinants of profitability determinants between Sharia Commercial Bank and Conventional Commercial Bank as seen from the variable capital adequacy ratio (CAR), non performing loan (NPL), operational expenses to operating income (BOPO) but partially there are differences in the determinants of profitability between Sharia Commercial Bank and Conventional Commercial Bank as seen from the variable capital adequacy ratio (CAR), non performing loan (NPL), operational expenses to operating income (BOPO).

**Keywords:** Profitability, Capital Adequacy Ratio (CAR), Non Performing Loan (NPL), Operational Expenses to Operating Income (BOPO)

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### I. Introduction

Bank is a business entity that collects funds from the public in the form of savings and distributes them to the public in the form of credit and or other forms in order to improve the lives of many people. This is based on the Law of the Republic of Indonesia Number 10 of 1998 concerning Amendment to Law Number 7 of 1992 concerning Banking. From this understanding it can be seen that the bank as a financial institution that functions as an intermediary has an important position in connecting the parties with excess funds with those who lack funds. People with excess funds can save their funds in banks, while people who need funds can make loans to banks. Thus, banks have an important role in mobilizing funds that can facilitate economic activities in a country.

Conventional Commercial Bank that have long been established put them in a dominant position in generating profits, total assets, and market share. This condition on the one hand, is very beneficial for conventional banks because conventional banks can generate better profits. This is supported by several studies such as those conducted by Hall & Weiss (1967), Pasiouras & Kosmidou (2001) & Jakfar (2009) who concluded that bank size has a strong tendency to produce high profit levels. Meanwhile, Haslem (1968) found that management, size, location, and time/time of the company significantly affected profitability. In addition, research conducted by Smirlock (1985) & Park and Weber (2002) also provides evidence that market share is positively and significantly related to profitability.

Meanwhile, Sharia Commercial Bank classified as new players in the Indonesian banking industry have a small amount of assets. The number of assets owned by Sharia Commercial Bank is still less than 5% of the total banking assets in Indonesia, of course this will affect their performance.

The presence of Sharia Commercial Bank in Indonesia has increased the number of banks that will be followed by increased competition in the banking industry itself. Coupled with the emergence of banks based on

sharia principles will increasingly open up opportunities for the emergence of new sharia-based banks so that competition will be tighter. Based on the facts, the development of Sharia Commercial Bank in Indonesia can be said to be very rapid. Based on Sharia Commercial Bank statistics in September 2019, it was recorded that there were five sharia commercial banks. While the number of Sharia Commercial Bank offices is 660, increasing from 2018 with 581 offices. Likewise with sharia business units, there are already 24 banks that have opened sharia business units. While the number of sharia business unit offices rose from 241 offices in 2008 to 264 offices in September 2019. In addition to the development of Sharia Commercial Bank and sharia business units, the same thing also happened to Sharia Rural Banks, where the number increased from 131 banks to 137 banks in September 2009. Meanwhile, Rural Bank Syariah offices also increased from 202 offices in 2008 to 220 offices in September 2019. With the increasing number of these banks, this will certainly increase competition in the banking industry in Indonesia so that in order to remain competitive in the market, the bank needs to pay close attention to its performance. This research discusses in detail the difference in profitability and determinants of profitability between Sharia Commercial Bank and Conventional Commercial Bank and what determinants affect the profitability of Sharia Commercial Bank compared to Conventional Commercial Bank so that a comparison can be seen between the two.

## **II. Literature Review**

### **Bank**

Bank is a business entity that collects funds from the public in the form of deposits and distributes them to the public in the form of credit and or other forms in order to improve the lives of many people. This is based on the Law of the Republic of Indonesia Number 10 of 1998 concerning Amendment to Law Number 7 of 1992 concerning Banking. The law also states that commercial banks are banks that carry out business activities conventionally and/or based on Sharia principles which in their activities provide services in payment traffic. From this statement it can be seen that commercial banks in Indonesia are divided into two major groups, namely Sharia Commercial Bank and Conventional Commercial Bank.

### **Conventional Commercial Bank**

Conventional Commercial Bank are banks that carry out their business activities conventionally and by type consist of Conventional Banks and Rural Credit Banks, according to the Law of the Republic of Indonesia Number 21 Year 2008 concerning Sharia Banking, it is stated that Conventional Banks which in their activities provide services in traffic payment. So, it can be concluded that conventional banks in carrying out all their business activities are based on conventional principles.

Kasmir (2004) revealed that in looking for profits and determining prices to its customers, banks based on conventional principles use two methods, namely:

1. Set interest as the price for savings products such as demand deposits, savings, or deposits. Likewise in setting prices for loan products based on certain interest rates. This pricing is known as spread based.
2. For other bank services, conventional banks apply various fees in certain nominal or percentage. This fee charging system is known as fee based.

### **Sharia Commercial Bank**

Sharia Commercial Bank is a Bank that conducts business activities based on Sharia Principles and by type consists of Sharia Banks and Sharia People Financing Banks. That is according to the Law of the Republic of Indonesia Number 21 Year 2008 concerning Sharia Banking, and Sharia Banks are Sharia Banks which in their activities provide services in payment traffic. So, it can be concluded that Islamic banks are commercial banks that carry out their business activities based on sharia principles, which are sourced from the Qur'an and Sunnah.

### **Definition of Profitability**

Profit is the main goal for every business. Simons (2000) defines profit as the amount of residual generated by a business after deducting expenses from income generated during a certain period. Profit is excess income compared to the total costs incurred to obtain the income (Ralona, 2006).

Profit has an important role for the company. With the profit, the company can survive in its environment, even bigger by expanding its business so that it can continue to compete with other companies. Goddard et al (2004) state that profit is an important prerequisite for future growth. Therefore, every company tries to maximize its profit.

### **Measurement of Profitability**

Profit is an important thing that is always considered by every company. However, it will be less meaningful if the profit figure is only seen as a single number that stands alone because the information

provided will be very limited. To overcome this, a profitability ratio is needed to provide better information about the company's performance when viewed from its ability to generate profits.

Return on asset (ROA) is a ratio used to measure the ability of bank management to obtain profits as a whole. ROA is calculated as a comparison between net income and total assets. The greater the ROA, the greater the level of profit achieved by the bank and the better the bank's position in terms of asset use.

Return on equity (ROE) is an indicator that measures the ability of banks to obtain net income. High ROE means that shareholders will get high dividends and an increase in ROE will cause an increase in stock prices. ROE is calculated as a comparison between net income and equity capital

Operational expenses to operating income (BOPO) is the ratio used to measure the level of efficiency and the ability of banks to carry out their operations. BOPO is calculated as a comparison between operating costs and operating income. The smaller the value of BOPO, the more efficient the bank is in carrying out its operations.

Net profit margin ratio (NPMR) is a ratio that shows the level of profit that a bank receives compared to its operating income. NPMR is calculated as a comparison between net income and operating income. The greater this ratio, the greater the profits derived by banks.

### **Factors that Affect Profitability**

Companies in running their business are certainly very concerned about profitability. There are many factors that can affect a company's profitability. Therefore, it is important for companies including the banking industry to pay attention to these factors, both internal and external factors.

In general, determinants of bank profitability can be divided into two, namely bank external determinants and bank internal determinants (Athanasoglou et al, 2001 in Adhyasari, 2009). What is meant by a determinant factor in a bank's external profitability is a factor that is outside the bank's control but also influences the bank's ability to earn profits (Adhyasari, 2009).

### **Difference between Sharia Commercial Bank and Conventional Commercial Bank**

Antonio (2001) revealed that in some cases, Sharia Commercial Bank and Conventional Commercial Bank have similarities, especially in the technical side of money receipts, transfer mechanisms, computer technology used, general conditions of obtaining financing, financial statements, and so on. Antonio (2001) also mentions that in addition to the similarities, there are many fundamental differences between the two concerning the legal aspects, organizational structure, businesses financed, and the work environment.

### **Determinant Factors**

Capital adequacy ratio (CAR) is a capital ratio that shows the ability of banks to provide funds for business development needs and to accommodate the possible risk of losses resulting from bank operations. The greater the ratio, the better the capital position.

$$\text{CAR} = \text{Own Capital} / \text{ATMR} \times 100\%$$

Non performing loan is one of the key indicators to assess bank performance. BI determines that the ratio of problem loans is 5%.

$$\text{NPL} = \text{Total Bad Credit} / \text{Total All Credits} \times 100\%$$

Operational expenses to operating income (BOPO) is covering operating expenses to operating income. The ratio of operational costs is used to measure the level of efficiency and the ability of banks to carry out their operations, the smaller this ratio means the more efficient operational costs incurred by the bank concerned.

## **III. Research Methods**

This study uses a model that aims to find out the main problem, namely regarding the comparison of determinants of profitability in Sharia Commercial Bank and Conventional Commercial Bank. This study uses SPSS version 23. However, before testing the model, a different test will be conducted first on the  $H_1$  to  $H_2$  hypothesis which aims to see whether there is a difference in profitability as measured by return on asset (ROA) and profitability determinant factors seen from the CAR, NPL, BOPO variables. The research model is:

$$\text{ROA}_{it} = \beta_0 + \beta_1 \text{CAR}_{it} + \beta_2 \text{NPL}_{it} + \beta_4 \text{BOPO}_{it} + \varepsilon$$

Information:

ROA	: Return on Asset
CAR	: Capital Adequacy Ratio
NPL	: Non Performing Loan
BOPO	: Operational Expenses to Operating Income
i	: Bank ke-i
t	: Period ke-t
$\beta_0$	: Constant

$\beta_1 - \beta_7$  : Coefficients of Each Independent Variable

$\epsilon$  : Error

The population in this study is Sharia Commercial Bank and Conventional Commercial Bank in Indonesia. After selection using the purposive sampling method, 12 sample banks were:

**Table 1. Research Samples**

No.	City/Regency Name
1.	Bank Mandiri
2.	Bank Negara Indonesia
3.	Bank Rakyat Indonesia
4.	Bank Tabungan Negara
5.	Bank CIMB
6.	Bank Mega
7.	Bank Maya Pada
8.	Bank Sumut
9.	Bank Mestika
10.	Bank Sinarmas
11.	Bank Muamalat
12.	Bank Syariah Mandiri
13.	Bank Negara Indonesia Syariah
14.	Bank Mega Syariah
15.	Bank Central Asia Syariah
16.	Bank Rakyat Indonesia Syariah

Source: Processed Data, 2020

#### IV. Results and Discussion

##### Descriptive Analysis

Descriptive analysis is used to produce an overview of the data that has been collected. Descriptive analysis used in this study is the mean, maximum, minimum, and standard deviation values.

**Table 2. Results of Sharia Commercial Bank Descriptive Statistics Tests**  
Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
ROA	12	17.10	21.26	19.0362	1.12539
CAR	12	10.40	15.14	12.8570	1.02549
NPL	12	1.79	4.20	3.3301	.82942
BOPO	12	.02	.81	.2248	.21876

Source: SPSS Output, Data Processed, 2020

Based on Table 2, it can be seen that the ROA variable in Sharia Commercial Bank has a minimum value of 17.10, a maximum value of 21.26, an average value of 19.0362 and a standard deviation of 1.12539. The CAR variable has a minimum value of 10.41, a maximum value of 15.14, an average value of 12.8570 and a standard deviation of 1.02549.

The NPL variable obtained a minimum value of 1.79, a maximum value of 4.20, an average value of 3.3301 and a standard deviation of 0.82942. The BOPO variable has a minimum value of 0.02, a maximum value of 0.81, an average value of 0.2248 and a standard deviation of 0.28761. And the LKPD disclosure variable obtained a minimum value of 0, a maximum value of 1, an average value of 0.4314 and a standard deviation of 0.50020 with a total N of 12.

**Table 3. Results of Conventional Commercial Bank Descriptive Statistics Tests**  
Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
ROA	20	0.4	21.76	23.0362	3.12539
CAR	20	0.89	15.90	1.8570	1.09999
NPL	20	5.79	4.20	3.8901	.4532
BOPO	20	3.02	6.67	.34848	.4326

Source: SPSS Output, Data Processed, 2020

Based on Table 3, it can be seen that the ROA variable in Conventional Commercial Bank has a minimum value of 0.04, a maximum value of 21.76, an average value of 23.0362 and a standard deviation of 3.12539. CAR variable has a minimum value of 0.89, a maximum value of 15.90, an average value of 1.8570 and a standard deviation of 1.09999.

The NPL variable obtained a minimum value of 5.79, a maximum value of 4.20, an average value of 3.8901 and a standard deviation of 0.4532. The BOPO variable has a minimum value of 3.02, a maximum value of 6.67, an average value of 0.34848 and a standard deviation of 0.4326 with a total N of 20.

**Difference Test**

Different tests are used to determine whether two unrelated samples have different mean values. Different test is done by comparing the difference between the two average values. Before testing the models that have been made, the authors will test the average difference in advance of the H<sub>1</sub> to H<sub>2</sub> hypothesis. Average different test is conducted to test whether there are significant differences in profitability as measured by ROA and the determinants of profitability between Sharia Commercial Bank and Conventional Commercial Bank.

For the purposes of this test, it must be known in advance whether the data distribution is normal or not so that it is necessary to test data normality using the kolmogorov-smirnov one-sample test (Nisfiannoor, 2009). The results of the normality test with the Kolmogorov-Smirnov 2 year period test at Sharia Commercial Bank can be seen from the following Table 4:

**Table 4. Sharia Commercial Bank Normality Test Results**

One-Sample Kolmogorov-Smirnov Test

	ROA	CAR	NPL	BOPO
N	12	12	12	12
Normal Parameters <sup>a</sup>				
Mean	19.0362	12.8570	3.3301	.2248
Std. Deviation	1.12539	1.02549	.82942	.21876
Most Extreme Differences				
Absolute	.421	.268	.275	.421
Positive	.267	.136	.247	.421
Negative	-.421	-.268	-.275	-.304
Kolmogorov-Smirnov Z	2.185	1.392	1.430	2.187
Asymp. Sig. (2-tailed)	.208	.141	.033	.000

a. Test distribution is Normal.

Source: SPSS Output, Data Processed, 2020

Based on the results of the normality test of Islamic banks above, it appears that ROA and CAR in Sharia Commercial Bank have a probability value greater than 0.05. This shows that ROA and CAR are normally distributed. However, NPL and BOPO, have a significantly smaller probability value of 0.05. this shows that NPL and BOPO have abnormal distribution.

The results of the normality test with the kolmogorov-smirnov 2 year period test at Conventional Commercial Bank can be seen from the following Table 5:

**Table 5. Conventional Commercial Bank Test Results**  
One-Sample Kolmogorov-Smirnov Test

	ROA	CAR	NPL	BOPO
N	20	20	20	20
Normal Parameters <sup>a</sup>				
Mean	23.0362	1.8570	3.8901	.34848
Std. Deviation	3.12539	1.09999	.4532	.4326
Most Extreme Differences				
Absolute	.270	.513	.207	.400
Positive	.171	.513	.207	.400
Negative	-.270	-.365	-.107	-.285

Kolmogorov-Smirnov Z	1.402	2.665	1.074	2.076
Asymp. Sig. (2-tailed)	.039	.380	.199	.054

a. Test distribution is Normal.

**Source: SPSS Output, Data Processed, 2020**

Based on the results of the conventional commercial bank normality test above, it appears that CAR, NPL and BOPO at conventional commercial banks have a probability value greater than 0.05. This shows that CAR, NPL and BOPO are normally distributed. However, CAR has a significantly smaller probability value of 0.05. this shows that CAR has an abnormal distribution.

### Wilcoxon Signed Rank Test

Hypothesis testing which aims to answer the question of differences in profitability as measured by ROA between Sharia Commercial Bank and Conventional Commercial Bank.

Decision making criteria in this study are:

1.H<sub>0</sub> can be accepted if the asymp value sig >  $\alpha = 0.05$

2.H<sub>1</sub> can be accepted if the asymp sig value <  $\alpha = 0.05$

### Return on Asset

**Table 6. Wilcoxon Sign Rank Test Results**

Test Statistics<sup>b</sup>

	ROA BUS - ROA BUK
Z	.517 <sup>a</sup>
Asymp. Sig. (2-tailed)	.005

a. Based on positive ranks.

b. Wilcoxon Signed Ranks Test

**Source: SPSS Output, Data Processed, 2020**

The results of data analysis on the variable ROA, by comparing the profitability of ROA in Sharia Commercial Bank and Conventional Commercial Bank, the z value of 0.517 was obtained with a significance of 0.605. Because the significant value is greater than 0.05 (0.005 < 0.05), it can be concluded that H<sub>1</sub> is accepted, meaning that there is a significant difference in the ROA variable in Sharia Commercial Bank and Conventional Commercial Bank.

### Independent Sample t-test

Examination of the existing hypothesis aims to answer the question whether the differences in the determinants of profitability between Sharia Commercial Bank and Conventional Commercial Bank can be seen from the variable capital adequacy ratio (CAR), non performing loan (NPL), operational expenses to operating income (BOPO) using independent sampling test.

**Table 7. Discretionary Accruals Means**

Group Statistics

Profitabilitas	N	Mean	Std. Deviation	Std. Error Mean
DA Bank Umum Syariah	12	-.05903	.238416	.045883
Bank Umum Konvensional	20	-.08898	.332035	.063900

**Source: SPSS Output, Data Processed, 2020**

This output explains the statistical data from the uncorrelated sample, the output group statistics displaying the number of subjects in each of the 12 and 20 study samples, on average from group 1 (Sharia Commercial Bank) -0.05903, coming from group 2 (Conventional Commercial Bank) -0,08898. Standard deviation of group 1 is 0.238416 and derived from group 2 the standard deviation is 0.332035. Standard mean error of group 1 is 0.045883 and group 2 is 0.063900.

**Table 8. Independent Samples Test**

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
DA	Equal variances assumed	.021	.886	.000	30	.705	.029953	.078667	-.127904	.187810
	Equal variances not assumed			.000	47.180	.705	.029953	.078667	-.128289	.188195

Source: SPSS Output, Data Processed, 2020

Based on the second part of the test, it can be seen that the calculated F value is 0.021 with a significant 0.886. Because the significant probability (0.886) is greater than 0.05, it can be concluded that there is no simultaneous difference in profitability between Sharia Commercial Bank and Conventional Commercial Bank as seen from the variable capital adequacy ratio (CAR), non performing loan (NPL), operational expenses to operating income (BOPO). From the above output, it can be seen that the value of t on the assumption of equal variance assumed is 0.381 with df = 30 with a significant probability of 0.000 (two-tailed). Because the significant probability (0,000) is smaller than 0.05 at the 95% confidence level, it can be concluded that there is a partial profitability difference between Sharia Commercial Bank and Conventional Commercial Bank as seen from the variable capital adequacy ratio (CAR), non performing loan (NPL), operational expenses to operating income (BOPO).

## V. Discussion

### Hypothesis First

Based on the hypothesis 1 test, it can be seen from the wilcoxon signed rank test which aims to see the difference in profitability (as measured by ROA) between Sharia Commercial Bank and Conventional Commercial Bank. Obtained z value of 0.517 with a significance of 0.605. Because the significant value is greater than 0.05 (0.005 < 0.05), it can be concluded that H<sub>1</sub> is accepted, meaning that there is a significant difference in the ROA variable in Islamic banks with conventional banks. In this research, H<sub>1</sub> was accepted, namely there was a significant difference in profitability (measured by ROA) between Sharia Commercial Bank and Conventional Commercial Bank.

This study supports the research of Bayu (2016), Meta (2010) which states that there are significant differences in the ROA variable in Sharia Commercial Bank and Conventional Commercial Bank. Instead this study does not support the research of Aisa (2010), I Putu Adnyana & Gerianta (2009) which states there are significant differences in the ROA variable in Sharia Commercial Bank and Conventional Commercial Bank.

### Hypothesis Second

Using the independent sample t-test with a significance level of 5% shows that the four financial ratios used in research with a two-year analysis on Sharia Commercial Bank and Conventional Commercial Bank, which is indicated by the ratio of the variable capital adequacy ratio (CAR), non performing loan (NPL), operational expenses to operating income (BOPO). With the results obtained from each ratio are as follows:

a. The results of the average discretionary accruals in each group of 4 and 20 study samples, the average of group 1 (Sharia Commercial Bank) -0.05903, which came from group 2 (Conventional Commercial Bank) - 0.08898. Group 1 standard deviations are 0.238416 and those from group 2 are standard deviations of 0.332035. Standard error mean group 1 is 0.045883 and group 2 is 0.063900.

b. The calculated F value is 0.021 with a significant 0.886. Because the significant probability (0.886) is greater than 0.05, it can be concluded that there is no simultaneous difference in profitability Sharia Commercial Bank and Conventional Commercial Bank as seen from the variable capital adequacy ratio (CAR), non-performing loan (NPL), operational expenses to operating income (BOPO). From the above output, it can be seen that the value of t on the assumption of equal variance assumed is 0.381 with df = 22 with a significant probability of 0.000 (two-tailed). Because the significant probability (0,000) is smaller than 0.05 at the 95% confidence level, it can be concluded that there is a partial profitability difference between Sharia Commercial Bank and Conventional Commercial Bank as seen from the variable capital adequacy ratio (CAR), non performing loan (NPL), operational expenses to operating income (BOPO). This means that H<sub>2</sub> is accepted there are differences in the determinants of profitability between Sharia Commercial Bank and Conventional

Commercial Bank seen from the variable capital adequacy ratio (CAR), non performing loan (NPL), operational expenses to operating income (BOPO).

This study shows that simultaneously there are no differences in the determinants of profitability between Sharia Commercial Bank and Conventional Commercial Bank as seen from the CAR, NPL, BOPO variables. But partially this research shows that there are simultaneously differences in the determinants of profitability between Sharia Commercial Bank and Conventional Commercial Bank as seen from the CAR, NPL, BOPO variables. This shows that Sharia Commercial Bank and Conventional Commercial Bank alike have economic desires that want to improve their profitability. This is consistent with Bayu (2016), Intoni & Muir (2014) research that partially there are differences in the determinants of profitability between Sharia Commercial Bank and Conventional Commercial Bank as seen from the CAR, NPL, BOPO variables.

## V. Conclusion and Suggestion

### Conclusion

Based on the results of data analysis and processing in this study, the following conclusions can be made:

- 1.This study was tested with wilcoxon sign rank test showing significant differences in profitability (as measured by ROA) between Sharia Commercial Bank and Conventional Commercial Bank.
- 2.This research is tested by independent sample t-test proving that simultaneously there is no difference in the determinants of profitability determinants between Sharia Commercial Bank and Conventional Commercial Bank seen from the CAR, NPL and BOPO variables but partially there are differences in the determinants of profitability between Sharia Commercial Bank and Conventional Commercial Bank in terms of CAR, NPL and BOPO variables.

### Suggestion

The suggestions that can be recommended based on the results of research and discussion that have been presented previously include the following:

#### 1.For Investors

Investors should be more careful in responding to investment desires, investors are required to be jaded in viewing financial statements in this case the financial statements of Sharia Commercial Bank and Conventional Commercial Bank.

#### 2.For further researchers

For further researchers, it is best to take measurements with other methods of determination and add financial ratio variables to measure financial performance and increase the period of research, so as to improve the quality of research results.

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