

Analysis of Capital Adequacy in PT. Bank Muamalat Indonesia Through Profitability, Financing Risk, and Cost Efficiency

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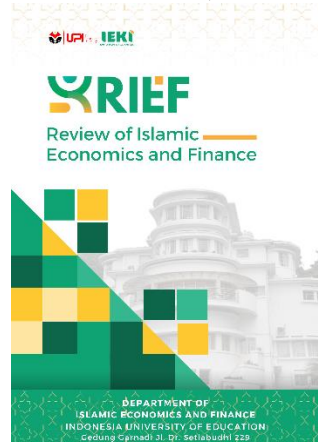
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Abstract

Purpose - Capital is the main factor for a bank to be able to develop its business growth. The fulfillment of the Bank's Minimum Capital Ratio or known as CAR is determined by the BIS (Bank for International Settlement) at 8%. This study aims to determine and analyze the factors that affect the level of capital adequacy at Bank Muamalat Indonesia. The population in this study is all data on the financial statements of PT Bank Muamalat Indonesia for the period 2012-2019, which have been published on the official website of Bank Muamalat Indonesia, Bank Indonesia, and the Financial Services Authority. The sample in this study is quarterly financial report data on the CAR, ROA, NPF, and BOPO accounts in the financial statements of PT. Bank Muamalat Indonesia in the 2012-2019 period.

Methodology - The method used in this research is the descriptive-explanatory method with multiple linear regression analysis. The dependent variable in this study is the Capital Adequacy Level. The independent variables in this study are Profitability Level (ROA), Financing Risk (NPF), and Cost Efficiency (BOPO).

Findings - The study results show that the level of profitability and risk of financing has a significant effect on the level of capital adequacy at Bank Muamalat Indonesia. In contrast, the cost-efficiency variable has no significant effect. Partially shows the results that the level of profitability has a significant and significant effect on the level of capital adequacy in a positive direction, financing risk has a significant and significant effect on capital adequacy in a positive direction, and cost efficiency does not affect the amount of capital adequacy in a positive direction.

Keywords - Capital Adequacy, Profitability, Financing Risk, Cost Efficiency

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1. INTRODUCTION

Islamic Bank is a financial institution that supports business or business activities. Therefore in Islam, the Prophet has applied several principles in doing business. The principles of doing business are exemplified by Rasulullah SAW, quoted from [Norvadewi \(2015\)](#) in his journal namely, the first principle is Customer Oriented, namely the business principle that always maintains customer satisfaction ([Afzalurrahman, 1997](#)), Second is transparency regarding quality, quantity, composition, elements-Chemical elements and others in order to create a sense of security and comfort for consumers. The third principle is fair competition by providing the best service to each other, product innovation, and the absence of collusive practices, the fourth is fairness to consumers by not committing fraud and providing the same service to all consumers ([Juliana, Faathir, & Sulthan, 2019](#)).

The economy in Indonesia today cannot be separated from the role of a bank. Banks as intermediary institutions act as intermediaries between parties who are in excess and those who need funds. The banking intermediary function affects economic growth. The realization of the role of banks and economic development in Indonesia can be fostered from public trust in banks as prospective users of bank services. ([Oktaviana & Syaichu, 2016](#))

In recent years, Islamic banking institutions in Indonesia have experienced very rapid growth and development. Previously, the development of Islamic banking institutions in Indonesia encountered obstacles because Islamic banks emerged during the development and practices of conventional banking that had taken root in society. However, because Islamic banking in Indonesia carries out its business activities based on sharia principles, namely applying the principle of profit sharing that is free from usury (interest), it is hoped that the public will believe in Islamic banking institutions that adhere to Islamic principles. ([Oktaviana & Syaichu, 2016](#)). However, during the development of Islamic Banking in Indonesia, the first Islamic Bank in Indonesia has received a lot of attention, including in the capital and financing sectors. The Bank is Bank Muamalat Indonesia.

Financial Services Authority (OJK) says Muamalat Bank lack of capital to carry out future developments. This is because the shareholders are reluctant to disburse funds to increase their capital. Chief Executive of the OJK Banking Supervision Heru Kristiyana said that in connection with this problem, Bank Muamalat was classified as stagnant because expanding it would require additional capital. Meanwhile, existing shareholders due to limited participation in Bank Muamalat, cannot increase their capital (see: <https://www.inews.id/finance/keuangan/ojk-likuiditas-bagus-bank-muamalat-kekurangan-modal>).

Capital is the main factor for a bank to be able to develop its business growth. The fulfillment of the Bank's Minimum Capital Ratio or known as CAR is determined by the BIS (Bank for International Settlement) at 8%. Initially, the provisions made by the BIS were not binding, but eventually, almost all Central Banks in the world adopted BIS regulations, in Indonesia Bank Indonesia implemented this provision through the PBI to become KPMM (Minimum Capital Requirement) of 8%, which will gradually be adjusted to the conditions. Banking in Indonesia and international banking (see: <https://dosen.perbanas.id/car-capital-adequacy-ratio/>).

The level of bank capital adequacy is expressed by the Capital Adequacy Ratio (CAR). CAR is measured from the ratio of own capital to risk-weighted assets, or it can also be measured by comparing capital with third party funds, such as current accounts, time deposits, and savings ([Oktaviana & Syaichu, 2016](#)). Bank Indonesia (BI) must close national banks if the Bank's capital adequacy ratio (CAR) is less than BI's stipulation, namely at the level of eight percent (8%). However, this will only cause liquidity difficulties for banks and cause problems (see: <https://economy.okezone.com/read/2010/01/04/320/290796/car-perbankan-kurang-dari-8-harus-ditutup>).

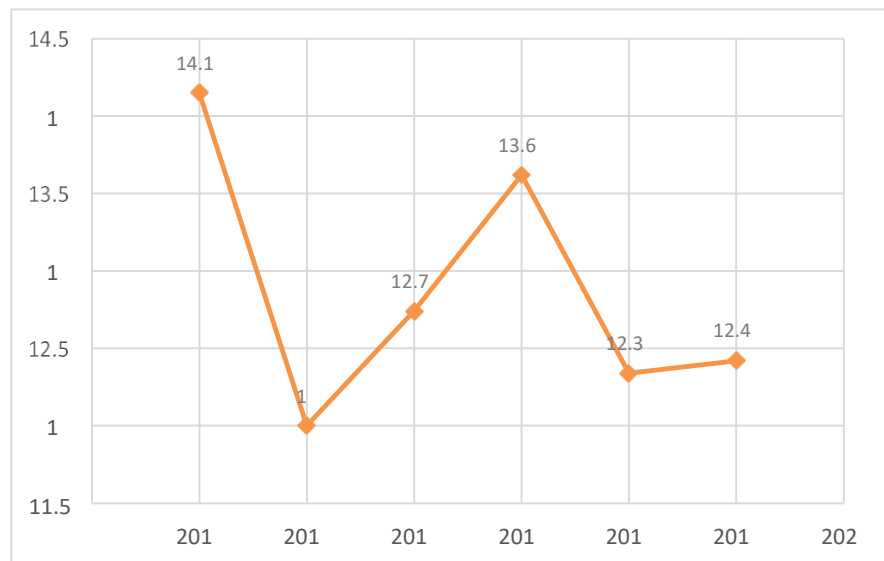


Figure 1. Bank Muamalat Capital Adequacy Level 2014-2018

Source: (PT. Bank Muamalat Indonesia, 2019.)

Based on figure 1, it can be seen that Bank Muamalat Indonesia has decreased the number of capital adequacy levels. If the decline in the level of capital adequacy is not resolved, it could trigger bankruptcy for PT. Bank Muamalat Indonesia. According to the Research Director of the Center of Reform on Economics (CORE), Piter Abdullah, the Bank Muamalat problem has occurred since 2015. At that time, the Bank was short of capital, and old shareholders were reluctant to disburse funds. The lack of capital occurred because previously, Bank Muamalat had channeled too much financing to corporations, for example, in the mining sector (see: <https://kumparan.com/kumparanbisnis/ramai-misi-penyelamatan-ada-apa-dengan-bank-muamalat-1sIh5M8HSx7>).

Factors that can affect bank capital adequacy can be caused by internal factors and external factors (Oktaviana & Syaichu, 2016). From various kinds of financial ratios, there are two groups (profitability and liquidity) that are the main factors affecting a bank's health. The profitability ratio shows the level of a bank's ability to earn profits from its business activities. If the level of profit of a bank is higher, it will impact increasing its capital (assuming most of the profits earned are reinvested in the Bank's capital in the form of retained earnings) (Barus, 2011).

The level of profitability has several indicators. Among them Return on Assets (ROA) is an indicator that is often used to assess bank profitability. As the supervisor and supervisor of the banking sector, Bank Indonesia prioritizes the profitability value as measured by the value of assets whose funds mostly come from public funds or third-party funds (DPK). Banks are not only trying to get high profits so that their profitability is high, but they must also be able to protect the risks that may occur in the lending they provide. In other words, a bank must be able to manage its activities as well as possible so that the company's goals are achieved (Haryanto, 2016).

In company risk management, Signal Theory provides information to investors whether the company is eligible or not to receive funds from investors. Investors can obtain this information through financial reports published by banks every year to assess the Bank's soundness. Non-Performing Financing (NPF) is one of the components of financing risk; when the NPF is high, direct repayment of receivables will be hampered to reduce the profitability of the repayment of loan funds from customers. Meanwhile, if the NPF is high, it will increase problematic financing to the total financing owned by the Bank. This will be a consideration for potential investors to invest capital (Permatasari & Novitasary, 2014).

Gordo (2013) states that efficiency is the ratio between output and input. This measure refers to the technical or operational efficiency (TE), which reflects the company's ability to obtain optimal profit from the capital used. Conversely, the company's ability to utilize at least an input to produce a certain amount of output. Therefore efficiency is closely related to the company's capital. (Muljawan, Hafidz, Astuti, & Oktapiani, 2014). One indicator to measure bank efficiency can use Operational Expenses Operating Income (BOPO) (Haryanto, 2016).

Based on the research of Mohammed T. Abusharba et al. (2013) revealed that profitability (ROA) has a significant influence with a positive relationship with CAR while research from Rheza Oktaviana and Muhammad Syaichu (2016) ROA has no influence on CAR. For the variable of financing risk with the NPF Margaretha and Setiyaningrum ratios (2011) which states that NPF has a significant negative effect on CAR while the research is Yuwita Ariessa Pravasanti (2018) states that NPF has no significant effect on CAR, Omotola Awojobi and Roya Amel (2011) and Raharjo, Hakim, Manurung, and Maulana (2014) shows a positive influence on the CAR variable.

According to research by Mokhammad Saiful Anam and Siti Ragil Handayani (2018), BOPO has a negative and insignificant effect, while according to Sugeng Haryanto's research (2016), BOPO does not influence CAR. Meanwhile, Siti Fatimah (2013) research states that only partially, only the BOPO variable has a positive effect on CAR.

Based on the background described above, there is a research gap, so the researchers set the title for this study, namely "Capital Adequacy Analysis at PT Bank Muamalat Indonesia through Profitability, Financing Risk and Cost Efficiency."

This study will only discuss the analysis of the capital adequacy level of PT. Bank Muamalat Indonesia with a CAR ratio through the level of profitability with indicators in the form of ROA, financing risk using the NPF indicator, and cost efficiency with the indicator BOPO. The choice of the capital adequacy level variable as the dependent variable is because the variable level of capital adequacy is fundamental in assessing the soundness level of the Bank. In contrast, the independent variables selected are profitability, financing risk, and cost efficiency because these variables are substantial factors in influencing the dependent variable, namely capital adequacy level. Figure 2. below shows the Conceptual Framework:

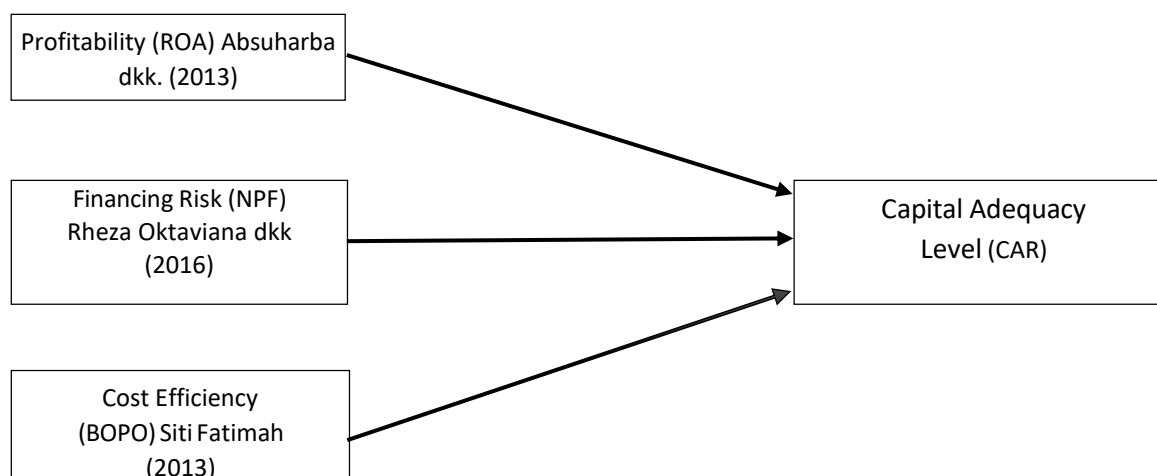


Figure 2. Conceptual Framework

2. LITERATURE REVIEW

2.1. Capital Adequacy

Capital adequacy is an aspect that measures whether the capital owned by a bank is sufficient to support its operational activities. According to Dian (2011) in [Feby Loviana Nazaf \(2014\)](#), Capital adequacy is an indicator of a bank's ability to cover the decline in activities as a result of losses suffered by the Bank and is used to measure the ability of the Bank to meet its short-term obligations when they are collected. In other words, the Bank can pay back the disbursement of depositors' funds when they are collected and can fulfill the credit request that has been submitted. This level of capital adequacy is used.

To maintain public confidence in bank performance. The main factor influencing the amount of bank capital is the minimum amount of capital determined by the monetary authority, which is usually the Central Bank's authority. An adequate level or amount of bank capital is required to increase resilience and efficiency in the current era of deregulation.

2.2. Profitability

According to [Riyadi & Yulianto, 2014](#), the Profitability ratio is the ratio of profit (after tax) to capital (core capital) or profit (before tax) with the total assets owned by the Bank for a certain period. For the ratio calculation to be closer to the actual conditions, the capital or asset position is calculated on average during the period.

2.3. Financing Risk

Financing risk occurs due to the failure of the customer or other party to fulfill obligations to the Bank by the agreed agreement [\(Nikensari, 2012\)](#). This financing risk is one of the main risks in providing Islamic bank financing [\(Sudarsono & Prabowo, 2006\)](#).

2.4. Cost Efficiency

Rose (1997) in [Siudek \(2008\)](#) has defined efficiency as an indicator that shows the ability of company managers and staff to keep the level of increase in revenue and profit above the level of increase in operating costs. In addition, Jaworski (2006) in [Siudek \(2008\)](#) also reveals that efficient activities are activities that not only lead to the achievement of specific goals but also ensure higher economic benefits from the inputs used [\(Muljawan, Hafidz, Astuti, & Oktapiani, 2014\)](#).

3. RESEARCH METHODOLOGY

The method used in this research is descriptive with a quantitative approach. This approach is carried out with operational preparations, formal and specific, and detailed operational design. The quantitative descriptive approach also describes and explains the results of research on the use of numbers or statistical formulas as a means of measuring research results [\(Pribadi, 2017\)](#).

The data analysis technique in this study is the influence test analysis using the Ordinary Least Square (OLS) method to obtain multiple linear regression coefficients. In addition, this study uses automatic calculations through a computer program, namely Eviews 10.

4. DISCUSSION

4.1. Current Overview of Research Variables

4.1.1. Capital adequacy level in PT. Bank Muamalat Indonesia

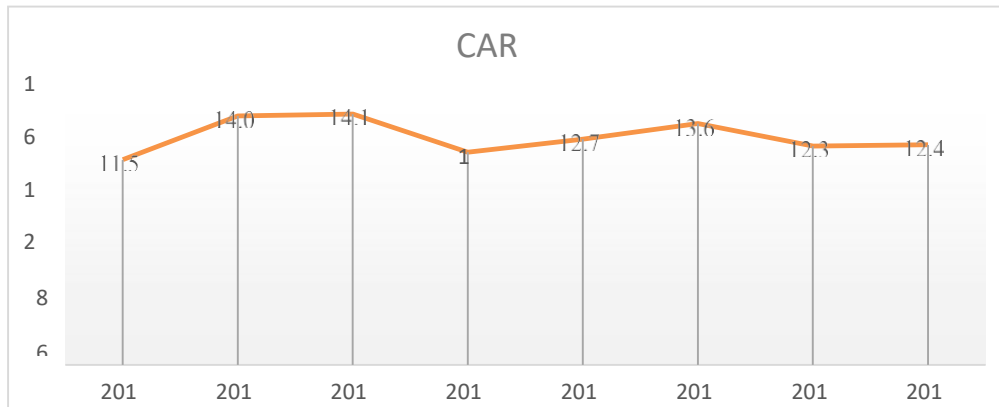


Figure 3. Capital Adequacy Level (2012-2019)

Source: ([PT. Bank Muamalat Indonesia, 2019.](#))

Based on the figure 3 above, it can be seen that there was a very significant decrease in capital adequacy in 2015, which was included in the 4th category. However, in the following years, 2016 and 2017, there was a slight increase in percentage terms, but Bank Muamalat's capital was still in category 4 and 5. Then in 2018 the Bank Muamalat Indonesia has again experienced a decrease in the amount of the Capital Adequacy Ratio, and in 2019 there has been no significant increase. The average from 2012- 2019 was 12.86% or was ranked 4th in the healthy category. Even so, Bank Muamalat must increase its capital.

4.1.2. Profitability (ROA) in PT Bank Muamalat Indonesia

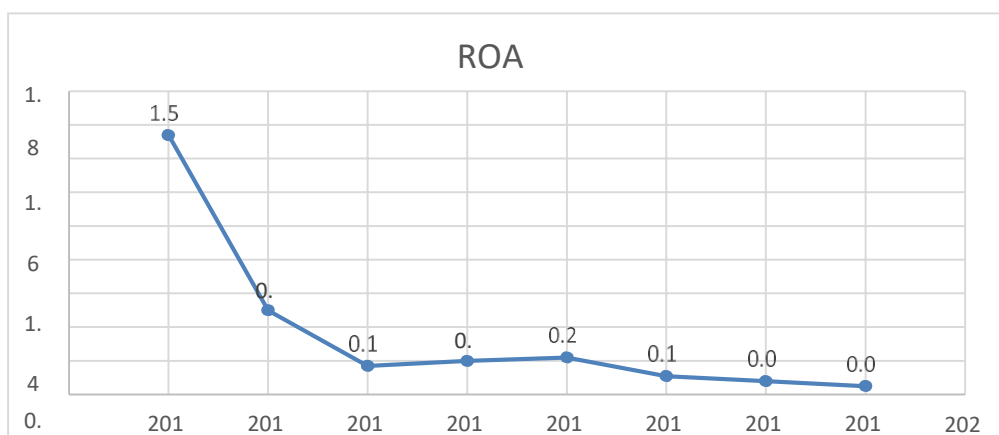


Figure 4. Profitability ROA (2012-2019)

Source: ([PT. Bank Muamalat Indonesia, 2019.](#))

Based on the figure 4 above, the average profitability (ROA) of Bank Muamalat in 2012-2019 is 0.38%, including rank 4 in the unhealthy category. The Return on Asset (ROA)

ratio has decreased quite significantly. The more highlight is its small value, which is below 0.5% which is in the unhealthy category, even in 2019, Bank Muamalat Indonesia was only able to record a profit of 0.05%.

4.1.3. Financing Risk Level in PT Bank Muamalat

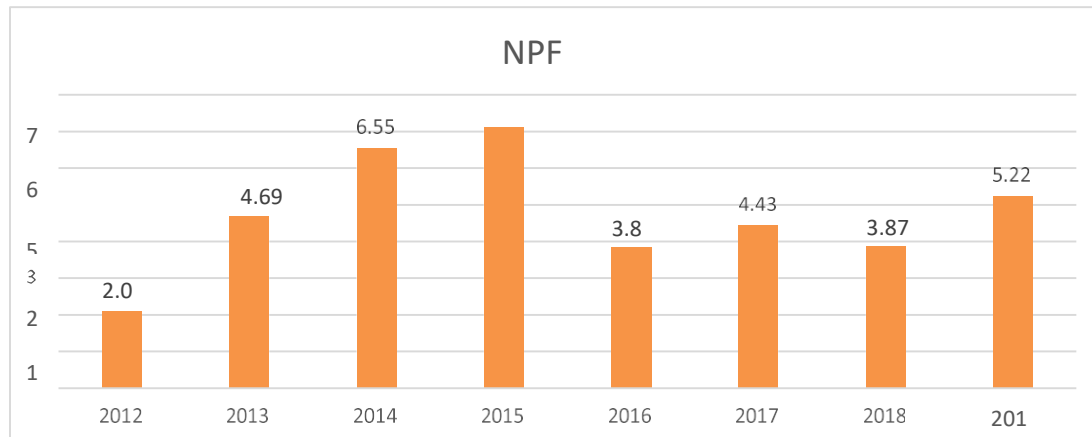


Figure 5. Financing Risk Level NPF (2012-2019)

Source: ([PT. Bank Muamalat Indonesia, 2019](#))

Based on the figure 5 above, the average NPF of Bank Muamalat for 2014-2019 is 5.16%. This figure is above the regulator's provisions, namely 5%, the high NPF number indicates that the quality of financing is in the reasonably healthy category. The NPF number at Bank Muamalat has increased from 2012, its peak in 2015 reached a level of 7.11% which is categorized as unhealthy, although in 2016 it experienced a decrease in the following years, namely 2017, 2018 and 2019.

4.2. Classic Assumption Test

Based on the results of the normality test in the image above, it can be seen that the significance level (Sign) is 0.622045, which means it is greater than 0.05 (> 0.05). So it can be concluded that the data used in this study are normally distributed.

All variables have a low Center VIF value, which is less than 10 (< 10). X1 (ROA) has a Centered VIF value of 2.358765, X2 (NPF) of 1.227072 and X3 (BOPO) of 2.152699. So it can be assumed that there is no linear relationship between the three variables so that there is no multicollinearity. The research data were randomly distributed and did not show a specific pattern, so it could be assumed that there was no heteroscedasticity problem or homoscedasticity. Durbin Watson's statistical value is 1.793497. Given that $n = 32$, $k = 3$ (where k = the number of explaining variables / independent variables that are not considered constants) and at $\alpha = 5\%$, it is known that $dL = 1.2437$ and $du = 1.6505$. The Durbin Watson value of 1.79349 is located between du and $4-du$, which means that it is in the "no autocorrelation" area, so it can be concluded that this study is free from autocorrelation.

4.3. Multiple Linear Regression Test

Table 1. Results of Multiple Linear Regression Test

Var.	Coef.	Std. Error	t-Statistic	Prob.
C	8.670081	4.787851	1,810850	0.0809
ROA	1.361707	0.596263	2.283734	0.0302
NPF	0.595326	0.171903	3,463149	0.0017
BOPO	0.014762	0.045740	0.322734	0.7493

The regression equation in table 1 above has the following meaning:

- constant = 8.670081, meaning that the dependent variable in this case capital adequacy is not influenced by any independent variable or profitability variable (ROA), Financing Risk (NPF) and cost efficiency (BOPO) equal to zero, so the level of capital adequacy is 8.670081%.
- The profitability coefficient (ROA) = 1.361707, meaning that when profitability increases by 1%, capital adequacy will increase by 1.361707%.
- The financing risk coefficient (NPF) = 0.595326, which means that when the risk of financing increases by 1%, capital adequacy will increase by 0.595326%.
- The cost efficiency coefficient (BOPO) = 0.014762, meaning that when cost efficiency increases by 1%, capital adequacy will increase by 0.014762%.

5. CONCLUSION

1. The development of capital adequacy at PT Bank Muamalat Indonesia has tended to decline in the last eight years. There has been no significant increase, and it is included in the healthy category. Even so, Bank Muamalat Indonesia must continue to increase the amount of capital if it does not want to go bankrupt. In the last eight years, the profitability at Bank Muamalat Indonesia has tended to decline, especially in the last three years, even more in the spotlight that the level of profitability in the last eight years has been below regulatory standards, which means it is in an unhealthy position. Then the development of Financing Risk in the last eight years has also fluctuated but and tends to increase. This is also a matter of concern for Bank Muamalat Indonesia, even though the NPF of Bank Muamalat Indonesia is still in a reasonably healthy position. For cost-efficiency in the last eight years, it has always been in the reasonably healthy criteria, this means that Bank Muamalat Indonesia must pay more attention to its efficiency;
2. Profitability has a significant positive effect on the level of capital adequacy. This means that if the level of profitability has increased, then the capital adequacy of Bank Muamalat will increase. Conversely, if profitability decreases, Bank Muamalat's capital adequacy will decrease;
3. Financing risk has a significant positive effect on capital adequacy. This means that if the risk of financing has increased, the capital adequacy of Bank Muamalat will increase. Conversely, if the risk of financing decreases, the capital adequacy of Bank Muamalat will decrease;
4. Cost Efficiency does not affect Bank Muamalat's capital adequacy.

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