Level of Bank Soundness Analysis with CAMEL Model on Sharia Bank in Indonesia Period 2010–2014
(Quantitative Study and Critique–Philosophy–Rhetoric)

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Abstract

One of requirement that should be met by all banks in Indonesia is they must fulfill the level of soundness that is required by Indonesia Banking Authority (Otoritas Jasa Keuangan). In 2014, OJK launched the new regulation to measure sharia bank level of soundness. This regulation, SE OJK No. 10/SEOJK.03/2014, is based on risk based banking rating and called RGEC (Risk profile, GCG, Earnings and Capital). Before that, sharia Bank in Indonesia should follow SE No. 9/24/DnPbS which is based on CAMEL (Capital, Asset, Management, Earning and Liquidity). The Purpose of this research is to compare the use of these method in measuring level of bank soundness. This research uses 11 sharia commercial bank (Bank Umum Syariah) in 2010 - 2014 as a for CAMEL calculation, while for RGEC, we use 12 sharia commercial bank. They are Bank Muamalat Indonesia, Bank Victoria Syariah, Bank BRI Syariah, Bank Jabar Banten Syariah, Bank BNI Syariah, Bank Syariah Mandiri, Bank Mega Syariah, Bank Panin Syariah, Bank Syariah Bukopin, BCA Syariah, Maybank Syariah Indonesia, and Bank Tabungan Pensiunan Nasional Syariah. The results show that based on CAMEL and RGEC, BCA Syariah and BNI syariah have better performance. And it also showed that from level of bank soundness we can find out the management objective. Such as, sharia bank with low level of experience tend to be less aggressive than sharia bank with high level of experience.

Keywords: CAMEL, RGEC, level of soundness, Sharia Bank

I. Introduction

The banking industry plays its important role in the economy of a country. His role as an intermediary between the parties that excess money (surplus) with those who need money (deficit) makes banks play a vital role. As we already know, the real sectors need financing to make them grow faster and bigger. Economy is often determined by the ups and downs of growth in lending by banks. On the other hand, country status is determined by the level of savings in that country. The higher the savings ratio, meaning the higher the awareness of the public in preparing for life in the future and also indicates the excess revenue to be saved. Thus, reliable financial institutions also needed by public. Communities need to feel secure in placing their funds. However, without leaving the ability of banks to provide attractive yields as well as have a clear mission in its operations.

Another important role banks can also be seen from the crisis that hit the world economy in the last two decades. The crisis that occurred in the last 20 years largely due to the downfall of banking sector. Starting from the reduced public confidence in the bank, which resulted in a rush or a massive withdrawal of funds then have an impact on the banking sector as a whole. This is called systemic risk,
which the government in this regard through the monetary authority, Bank Indonesia and the Financial Services Authority endeavor to prevent it.

One of the example is the economic crisis that hit Indonesia in 1998. Various studies have shown that if the only factor KKN (corruption, collusion, and nepotism) that caused the crisis is too simple. Even a few years earlier, before the crisis, it is precisely these factors which is said to represent the uniqueness of the countries in Asia that causes them different from other countries in the world. Through further research, it was discovered the causes of the crisis can be divided into two, namely the sources of fragility and the trigger of the crisis.

The review further found these two factors together occurred largely between August 1997 and March 1998. The biggest source of fragility, and is a fundamental weakness, is Indonesia's banking sector is overly rely on assurances from the government, but do not have enough capital and good regulation (Shalendra D. Sharma 2001).

Enoch et al (2001) concluded that approximately the same thing in his writings. A weak banking sector, compounded by the problems that occurred in the government, made the implementation of the solution becomes too late. Although various strategies has been tried to be formulated in the first months of the crisis, but lags in the implementation of solutions made the impacts have spread to the banking sector as a whole. At the end of 1999, critical points for the improvement of the banking sector have been implemented and the political transition that occurs already at the good stage. However, the government still can’t just stay and must be prepared to face the challenges ahead.

The condition is then followed by the issuance of Law (UU) No. 23 of 1999. In the Act stated that Bank Indonesia has one goal is to achieve and maintain stability in the rupiah. To achieve that goal, Bank Indonesia supported by three main pillars in which one of the pillars is related to the health of the banking which is the healthiness of banking and financial system healthy. To achieve these pillars then prepared next strategic step is to continue the process of consolidation, strengthening the banking infrastructure, improve prudential and encourage intermediation. One implication in the application of prudence is the increased prudential banking with reference to best practice 25 Basel Core Principles, among others pursued through improving the quality of bank management and the improvement of conditions and strengthening supervision over the implementation of bank supervision on a consolidated basis. Form of application is required to be transparent in the bank's financial statements and related benchmark Bank Indonesia issued instructions prudence in bank operations (Special Unit for Bank Indonesia Museum: History of Bank Indonesia, 2007).

While on the other hand, to support the intermediation function, Bank Indonesia has encouraged the growth of Islamic banking. Bankers welcomed this decision with joy. This is shown by the increasing of banks or financial institutions that operate shariah. In addition, growth is also indicated by the increasing total Islamic banking assets over the last five years. Undeniably, the decision to use the services of Islamic banks because of the concepts used in accordance with the beliefs of most Indonesian people.

Islamic banks should ensure that the principles of Shariah Business Good Governance (GGBS) used as a reference in every aspect and operational activities of daily (Bank Muamalat 2015). Spiritually, in order to obtain the blessing, Islamic finance should based on faith and piety embodied in the form of a commitment to
two basic principles, namely lawful and Tayib (good) as Allah SWT says in surah Al-Baqarah/2: 168.

On the other hand, as the financial institutions that are under the jurisdiction of Indonesia where the activities are supervised and monitored by the Financial Services Authority (FSA), the Islamic banks have to meet rules of the soundness of Islamic banks set by the FSA. The rules regarding the rating of the Islamic bank with reference to the CAMEL launched by Bank Indonesia through PBI No. 9/1 / PBI / 2007. The regulation comes with Circular Letter No. 9/24 / DPbS. In 2014, the FSA renew the regulation with POJK No. 8/POJK.03/2014. With this rule, the measurement of levels of health based on CAMEL replaced by the measurement on the basis of risk profile, Good corporate governance, earnings and capital (RGEC).

CAMEL and RGEC as a method of measuring the health of banks combine quantitative and qualitative elements. As a means of measuring the health of banks, CAMEL measurement is also often used to measure the probability of bankruptcy of a bank. Aryati and Balafif (2007), Almilia and Herdinigtyas (2005), and Nugroho (2012) using financial ratios contained in CAMEL for predicting bankruptcy. Their results showed CAMEL can be used to measure the likelihood of a bank bankruptcy or financial difficulties.

On the other hand, the high NPL is often cited as the cause of the collapse of a bank (Demirgüc-Kunt, 1989). More less the same conclusions derived from studies conducted by Whalen (1991). While other studies mentioned, the inefficiency of a bank lead to a high possibility of the bank experiencing financial difficulties or bankruptcy. Berger, Hunter, and Timme (1993) specifically examine the conduct review related to the condition. Reddy (2011) combines the two conditions to view the behavior of the management of commercial banks in India. Research results show that commercial banks in India have no skimping behavior, but for banks with low capital have proven moral hazard.

Based on this analysis, this study will examine how the rating of the Islamic bank by using PBI No. 9/1/PB/2007 based on CAMEL and POJK No. 8 / POJK.03 / 2014 pursuant RGEC. Measurements made on shariah banks in Indonesia in 2010 and 2014 for the implementation of CAMEL and 2015 for the implementation of RGEC. Next, the researchers examined the behavioral management of Islamic banks in Indonesia by using CAMEL.

Research Questions
Referring to the background described, the problems will be studied further in this study are:

1. How is the performance rating of CAMEL based on shariah banks in Indonesia in 2010 until 2014?
2. How is the performance of the rating is based RGEC on Islamic banks in Indonesia in 2015?
3. Are Islamic banks are performing well with measurements CAMEL also performs well using RGEC measurement?
4. How is the behavior management of Islamic banks is reviewed by the method of CAMEL?

Research purposes
The purpose of this study is as follows:

1. Knowing the comparative assessment of health level using the CAMEL Islamic commercial bank in the year 2000-2014
2. Know the performance of Islamic banks based method RGEC 2015
3. Knowing whether the rating can be used to look at the behavior of bank management

Benefits of research

1. The theoretical benefits
   This research is expected to contribute to science, finance and business in general, and banks in particular regarding the application of sharia bank rating and assessment of the performance of Islamic banks. In addition, this study is expected to provide new insights into the study of the behavior of bank management using CAMEL.

2. Practical benefits
   a. For Islamic Banks in Indonesia
      Islamic Banks (BUS) can use this study to see how the rating is based on CAMEL, RGEC and behavior management using CAMEL.
   b. For general reader
      Community get an idea of how the health and behavior management of BUS studied.
   c. For further research
      Provides the foundation once additional reference for writers who want to do research related to the assessment of health and behavior management level BUS.

II. Theoretical Framework

Sharia’ Bank Rating

In accordance with the characteristics of different Islamic banks with banks operating conventionally, then the regulators issue special regulations related to the rating of the Islamic bank. The soundness rating has undergone some changes. In this section presented two rules bank rating is PBI No. 9/1 / PBI / 2007 that the rating of the Islamic banks on the basis of CAMEL and POJK No. 8 / POJK.03 / 2014 that the rating based Islamic bank with RGEC.

In 2014, the Financial Services Authority (FSA) launched a related PBI Bank Rating Sharia and Sharia Business Unit. On PBI 8 / POJK.03 / 2014, no longer based on CAMEL ratings, but based on RGEC (Risk profile, Good Corporate Governance, Earnings and Capital). Each of these components is described in the description below.

CAMEL method

Rating Bank according to the CAMEL method refers to Circular Letter No. 9/24 / DPbS. Where in this study, the indicators used are the following components.

1. Capital
   Rating of capital is intended to assess the capital adequacy of the Bank in securing a position and anticipating risk exposure risk exposure will appear. In the calculation of capital indicator, the ratio used is the calculation of CAR (Capital Adequacy Ratio) (Bank Indonesia 2007b).

2. Asset Quality
   Asset quality assessment is intended to assess the condition of the bank's assets, including the anticipation of the default risk of financing (credit rumor) that will appear. Used as a proxy indicator of the quality of banking assets is the quality of bank assets.

3. Management
   Management assessment is intended to assess the managerial ability of bank management in running the business in accordance with the principles of general
management, the adequacy of risk management and compliance either bank of the provisions relating to the precautionary principle maupunkepatuhan against Islamic principles and commitments of banks to Bank Indonesia regulation.

4. Profitability (Earnings)
Rating of earnings is intended to assess the bank's ability to generate profits. The ratio used in the measurement of profitability is Net Operation Margin (NOM).

5. Liquidity
Liquidity assessment is intended to assess the bank's ability to maintain adequate levels of liquidity, including anticipation of liquidity risk will arise. The ratio used in the measurement of short term liquidity mismatch.

**RGEC Methods**
RGEC method of rating the banks arranged through POJK No. 8 / POJK.03 / 2014 with its complementary rules that SEOJK 10/SEOJK.03/2014. In this method, the rating is more focused on the measurement of risk faced by banks (Lasta, Heidy Arrvida; Arifin, Zainul; Nuzula 2014). Thus the bank is expected to anticipate the risks that may occur in the future quickly. In these rules, banks are required to identified all the risks that may occur, both in terms of internal and external bank, which may have an impact on the performance and condition of the bank as a whole (Permana 2012). In addition, banks are also required to perform a self-assessment at least twice in each year.

1. Risk profile
Assessment of the risk profile includes an assessment of the inherent risks and the quality of risk management in bank operations. Inherent risk is the assessment of the risks inherent in the business activities of the bank, both of which can be quantified and that cannot be quantified and potentially affect the financial position of the Bank. Thus in assessing the risk profile, shall be considered a business strategy, business characteristics, the complexity of the bank's products, the scope of bank activities, as well as macro conditions may be influential. which is divided into ten risk identification. The risk is credit risk, market risk, liquidity risk, operational risk, legal risk, strategic risk, compliance risk, reputation risk, the risk of returns, and investment risk.

2. Corporate Good Governance
Ratings of good corporate governance in the quality of bank management refers to the five (5) basic principles of good corporate governance: transparency, accountability, responsibility, professional and fairness. Islamic banks also carry out checks (self-assessment) on the implementation of good corporate governance. The implementation of self assessment is conducted periodically and adjusted to the rating of the bank.

3. Profitability
Earnings factor assessment includes evaluation of performance, resource, sustainability, profitability of banks as well as the implementation of the bank's social mission. Assessment of which is done by looking at the level, trend and structure of bank profitability. In addition, the consideration is a comparison with a peer group of Islamic banks by considering the similarity of the complexity and characteristics of the bank.

4. Capital
Ratings for capital includes capital adequacy and capital management. In calculating capital adequacy, the bank must follow the rules regarding the obligation to fulfill the minimum capital for banks with Islamic principles. In conducting the assessment,
Islamic banks must do a comparison with the banks that are included in the category *peer group*.

**Management Behavior**

In recent years, the development of the banking sector in Indonesia is very rapid. Advances in technology and lax banking deregulation set by governments led to the banks should improve its efficiency to win the competition. On the other hand, higher competition also caused banks to be willing to take risks. Among them are by providing loans to clients who risky enough but the yields are quite high. Some studies discuss the efficiency of the bank. One article is sufficient to give effect is Berger and DeYoung (1997). Using the *Granger-causality test*, they do research on the relationship between the efficiency of the bank, NPL and the capitalization of the commercial banks in the US. The model is built upon three equations in which each variable is the dependent variable and regressed to the lag of the variable itself and also lag of other variables (Quadt and Nguyen, 2016). The hypothesis is divided into four parts: Bad Luck, Bad Management, Skimping and Moral Hazard

1. **Bad Luck Hypothesis**

In the hypothetical *bad luck*, external factors precede the increase in troubled loans. Because of the bad loans causing an increase in operating costs among banks to monitor problem loans and also due to reduced interest income due to interest payments in arrears. Thus, based on this hypothesis rise in NPLs led to increases in operating costs

2. **Bad Management Hypothesis**

In this hypothesis, the low efficiency is the cause of the high NPLs. It is seen from the ability of management to manage the company. *Bad management* for example can be seen from the lack of management capabilities in monitoring a loan, does not have a network that is wide enough to get a prospective customer quality, in addition to the bad manager does not have the ability to conduct an assessment of the collateral well. This condition is the underlying hypothesis that low measurement of the efficiency of a bank loan resulted in the bank experienced a troubled high enough

3. **Skimping Hypothesis**

This hypothesis emphasizes the *tradeoff* between efficiency in the short term but cause an increase in bad loans in the future. In the short term bank looks efficient, due to savings in the binding of loans and loan monitoring, but in the future these conditions can cause a rise in troubled loans. In *skimping hypothesis*, expectations are expected to sign the same with bad management hypothesis but with a positive relationship,

4. **Moral Hazard Hypothesis**

In this hypothesis, the declining source of revenue led to the bank's capital worsened. When capital down further the bank more motivated to increase lending risk, so that the troubled bank term loan can be increased. Thus, the hypothesis of *moral hazard* is the decrease in the bank's capital led to increased bad loan bank.

**Previous research**

Previous studies have linked the simulation measurement of the bank is already pretty much done. The method used is also quite varied, but in general the measurements by using the CAMEL or RGEC then be deployed on financial ratios.

Lasta et al (2014) performed an analysis of one of the largest banks in Indonesia, Bank BRI. They conduct research at the BRI bank between 2011 - 2013.
The analysis shows that BRI has a level RGEC healthy enough. In this study, the factors assessed is the risk factor profile, good corporate governance, earnings and capital. While the research conducted by Trisnawati (2014) analyzed the rating of the state bank. State-owned banks are Bank BRI, Bank BNI and Bank Mandiri. The study period was 2011 and 2012. The results showed the four banks in the category very healthy. It can be seen from the value of the bank's fourth entry in the category PK-1.

Meanwhile, several studies analyzing the comparison between the methods CAMEL and RGEC to the rating of the bank. Bank analyzed were conventional banks. Kusumawati (2014) analyzed the soundness of the bank by using both methods. The analysis shows, the soundness of the Bank in the category very healthy in 2010 until 2012.

Another study by comparing the CAMEL method and RGEC conducted by Permama (2012). In these studies, Permama compare between the CAMELS method and RGEC. The results showed RGEC have a better assessment methods. This is because RGEC able to fill gaps in the CAMELS method. The deficiency is if the CAMELS, assessment methods do not lead to the conclusion that directs to a vote. While the method RGEC, more emphasis on the importance of management in assessing the quality of bank soundness.

Rossi, Schwaiger, and Winkler (2005) analyzed the behavior of management in nine countries in Central and Eastern Europe. Although it is found a negative association between NPLs and efficiency, but there were no bad management hypothesis. While research to commercial banks in the Czech Republic, Podpiera and Weill (2008) found evidence that banks in the Czech Republic experienced a bad management hypothesis but reject the hypothesis of bad luck.

III. Research Methods

Types of research

Referring to the details of the problems described above, the research method used in this paper is the descriptive method. Descriptive method itself is a method used to search for elements, characteristics and nature of the phenomenon. This method starts with collecting data, analyzing the data and interpreting them. Descriptive methods in practice through: survey techniques, case studies, comparative studies, the study of time and motion, behavior analysis and documentary analysis (Suryana 2010).

In conjunction with this research, it will be done in-depth review of the soundness of banking-related measurements by using the CAMEL and RGEC. CAMEL method is tested with based on PBI No. 9/1 / PBI / 2007 and Circular Letter No. 9/24 / DPbS the Rating System for Commercial Banks based on Sharia principles. As for testing the method RGEC using methods POJK No. 8 / POJK.03 / 2014 and SE FSA No. 10 / SEOJK.03 / 2014.

Operational Variable Research and Definitions

In this study, the variables used are the variables associated with CAMEL and RGEC.

CAMEL

Coverage of the Bank Rating according to the CAMEL method refers to Circular Letter No. 9/24/DPbS. Where in this study, the indicator used is the ratio of the following.

1. Capital (Capital)

The formula for the calculation of CAR are as follows:
2. **Asset Quality (Asset Quality)**
   Used as a proxy indicator of the quality of banking productive assets
   
   \[
   \text{Non Performing Finance Ratio} = \frac{\text{Non Performing Finance}}{\text{Total Pembiayat Finacing to Third Parties of Nonk}}
   \]

3. **Profitability (Earnings)**
   The ratio used in the measurement of profitability is Net Operation Margin (NOM).
   
   \[
   \text{Net Operation Margin} = \frac{(\text{Operating Income} - \text{operating expenses})}{(\text{average Earning Assets})}
   \]

4. **Liquidity**
   The ratio used in the measurement of short term liquidity mismatch.
   
   \[
   \text{Short term mismatch} = \frac{\text{short term asset}}{\text{short term liabilities}}
   \]

**RGEC**
Rating of the Islamic banks on RGEC include risk profile, corporate good governance, profitability and capital. The assessment refers to the SE FSA No. 10 / SEOJK.03 / 2014 on Bank Rating Sharia and Sharia Business Unit (Financial Services Authority 2014b).

1. **Risk profile**
   Assessment factors Risk Profile is an assessment of the inherent risk and quality of risk management in the operational activities of the Bank. In this study, the ratio used of each risk is as follows.

   **(a) Credit risk**
   The variables used in this study related to credit risk are:
   
   1. Low quality financing ratio = \(\frac{\text{low quality financing}}{\text{total financing}}\)
   2. Problem loan ratio = \(\frac{\text{problem loan}}{\text{Total financing}}\)
   3. Problem loan ratio and loan loss provision = \(\frac{\text{Problem loans minus loan loss provision}}{\text{Total financing minus loan loss provision}}\)
   4. Foreclosed asset = \(\frac{\text{foreclosed asset}}{\text{Total asset}}\)

   **(b) Liquidity risk**
   The ratio used in this study to measure the liquidity risks faced by banks are:
   
   1. Liquid asset ratio = \(\frac{\text{Total Liquid Asset}}{\text{Total Asset}}\)
   2. Total liquid asset to funding = \(\frac{\text{Total Liquid Asset}}{\text{Short Term Funding}}\)

   **(c) Yield Risk**
   In this study, the ratio used as a proxy of the risk of yield is:
   
   \[
   \text{Finance based on debt ratio} = \frac{\text{Finance based on debt}}{\text{Finance based on Profit sharing}}
   \]
2. Good Corporate Governance

Good Corporate Governance assessment process evaluated within a governance system that consists of 3 (three) aspect of governance, namely governance structure, governance process and governance outcomes.

3. Profitability

The ratio is used as a proxy for profitability indicator in this study are:

1. \[ \text{Return on Asset} = \frac{\text{Earning Before Tax}}{\text{Rata-rata total asset}} \]
2. \[ \text{Net Operation Margin} = \frac{\text{Income from productive asset after profit sharing- operational expense}}{\text{Average productive asset}} \]
3. \[ \text{Net benefits} = \frac{\text{Income from productive asset after profit sharing-(rewards and Bonus)}}{\text{Average Productive asset}} \]
4. \[ \text{BOPO} = \frac{\text{operational expense}}{\text{operational income}} \]

4. Capital

The ratio used is as follows

1. \[ \text{KPMM} = \frac{\text{Capital}}{\text{Risk Weighted asset}} \]
2. \[ \text{core capital ratio} = \frac{\text{Core Capital (Tier 1)}}{\text{Risk Weight Asset}} \]
3. \[ \text{core capital and total capital ratio} = \frac{\text{Core Capital}}{\text{Total Capital}} \]

Management Behavior

Granger Causality tests used by Berger and DeYoung (1997) was applied in this study to look at the behavior of management in Islamic banking in Indonesia. Behavior management analogy as inter-temporal relationship between the problem loans, and capital efficiency. These three equation predicted to see four types of behavior management, namely, bad management, bad luck, skimming and moral hazard. Granger Causality framework are as follows (Reddy, 2011).

\[
\begin{align*}
\text{NPL}_{i,t} &= f_1(\text{NPL}_{i,lag}, \text{NOM}_{i,lag}, \text{CAR}_{i,lag}, \text{Quick Ratio}_{i,lag}) \quad (1) \\
\text{NOM}_{i,t} &= f_1(\text{NPL}_{i,lag}, \text{NOM}_{i,lag}, \text{CAR}_{i,lag}, \text{Quick Ratio}_{i,lag}) \quad (2) \\
\text{CAP}_{i,t} &= f_1(\text{NPL}_{i,lag}, \text{NOM}_{i,lag}, \text{CAR}_{i,lag}, \text{Quick Ratio}_{i,lag}) \quad (3)
\end{align*}
\]

Where:

NPL = level of NPLs
NOM = Net Operation Margin
CAR = Capital adequacy ratio
Quick Ratio = Comparison between current assets to short term liabilities

Population and Sample

The population in this study is all Islamic financial institutions in Indonesia that operates at 2010 to 2014. While the sample is determined by purposive sampling method, the sample is selected based on certain criteria. The criteria used are as follows:

1. Financial institutions that provide annual report and other data sources that can be accessed by the author.
2. Islamic financial institutions rated by the four components RGEC (risk profile, good corporate governance, earnings and capital).

Based on these two criteria, this study uses a sample in the form of shariah commercial banks operating in Indonesia. Since Shariah Business Unit, does not publish annual reports and not assessed factors GCG, earnings and capital, the Shariah Business Unit is not included in the sample. To assess the soundness of Shariah Commercial Bank in the period 2010 to 2014, writes used the data on the Shariah Banking Statistics which is available on Bank Indonesia website and the Financial Services Authority. As for the study of implementation of the rating method RGEC, conducted an analysis of the 12 Islamic banks in 2014 and 2015. Data obtained from Publications Reports Islamic Banks and annual report are available at each site of shariah commercial banks.

**Types and Sources of Data**

Data used in this research is secondary data. Secondary data is data obtained indirectly through data collection or through a literature review. Sources of data in this study are reports and Statistics Publications Islamic Banking Bank of website www.ojk.go.id and www.bi.go.id. Other data sources are contained in the annual report of each site of the bank.

**Method of collecting data**

Methods of data collection is to collect all of the documents and related data, then performed an analysis on the data. The author takes reference from the internet, books, newspapers, journals and previous studies.

**Methods of Data Analysis**

**Test for Difference among Groups**

Analysis of Variance ANOVA method or analysis is used to test the hypothesis that the average of the two populations are equal to the opposite hypothesis which is the average of the two populations are different. For this test, the population assumed to be independent, to be normally distributed and homogeneous variance (Salvatore, Dominick; Reagle 2001).

However, if the data is not normally distribute the mean difference testing done using Kruskal Wallis test. Kruskal - Wallis nonparametric test was more than two variables.

**Descriptive Quantitative Methods**

The second method used is descriptive quantitative method. Quantitative methods described by Suryana (2010) was tested with statistical tools invernsial and descriptive statistics, to prove whether these theories are proven conclusively (significant) or not based on the test results of empirical facts. Where the type of methodology is descriptive in which the activities undertaken is to collect data, process and then perform interpretation of Outcome

**Research Limititation**

In the analysis of CAMEL, the component to be tested is a component of capital, asset quality, earnings and liquidity. As for the management component, we did not measure the level of health. Likewise, the method RGEC. Tests carried out on the risk profile of the components, the ability to generate profits and capital. This is done because the component management and good corporate governance are more subjective in its judgment, whereas this research is to use the data that are objetif ie data derived from the financial statements, either already in the form of financial ratios and data in the financial report that is processed into financial ratios, Besides the availability of data is also a consideration.
IV. Result and Discussion

The data used in this study are banks that fall within the Islamic Banks. In 2016, 12 banks in the category of Islamic banks. The banks are:

1. PT. Bank Muamalat Indonesia (BMI)
2. PT. Bank Victoria Syariah (BVS)
3. PT. Bank BRI Syariah (BRIS)
4. PT. Bank Jabar Banten Syariah (BJBS)
5. PT. Bank BNI Syariah (BNIS)
6. PT. Bank Syariah Mandiri (BSM)
7. PT. Bank Mega Syariah (BMS)
8. PT. Bank Panin Syariah (BPS)
9. PT. Bank Syariah Bukopin (BSB)
10. PT. BCA Syariah (BCAS)
11. PT. Maybank Syariah Indonesia (MSI)
12. PT. National Savings Bank Syariah (BTPNS)

The next of these banks collected the annual report and the report GCG (Good Corporate Governance) and then sift through to get the results of each item. Where each item is an item that is rated at SE FSA sharia bank rating.

Bank Rating

CAMEL method

Descriptive statistics

Descriptive statistics shown by the 11 banks which is included as shariah commercial banks between 2010 and 2014 are shown in the table below:

<table>
<thead>
<tr>
<th>Table 1. Descriptive Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
</tr>
<tr>
<td>---</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>value CAR</td>
</tr>
<tr>
<td>NPF value</td>
</tr>
<tr>
<td>value NOM</td>
</tr>
<tr>
<td>value QuickRatio</td>
</tr>
<tr>
<td>Valid (listwise) N</td>
</tr>
</tbody>
</table>

In the descriptive statistics showed the average minimum capital adequacy of Islamic banks in Indonesia ranged in value of 24.4%. This means that in terms of satisfying the minimum capital requirement, Islamic banks already meet the minimum requirements required by a regulator. While the NPF value or quality of assets is also still in the range of safe, in the sense BUS can manage the portfolio well so that the quality of productive assets is maintained. In terms of profitability, is in the range is quite good even far above the average. While the value of quick ratio or the ratio between short-term assets with short-term liabilities also showed a high value, which means Islamic banks consider well in terms of the management of its assets and liabilities.
Test for Difference among Group Means
Capital

Table 2 Test for Difference among Group Means for CAR

<table>
<thead>
<tr>
<th></th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi square</td>
<td>37.840</td>
<td>0.000</td>
</tr>
</tbody>
</table>

From the test results on the value of all BUS CAR, there are significant differences in the average. This shows the value of health in CAR component is quite varied in each BUS. Besides showing their motivation perbankan different management towards the CAR. On the new bank operates sharia, generally not too aggressive. It can be seen from two Islamic banks with a CAR ratio of the average highest Islamic Bank and Bank Victoria Syariah. New Islamic Bank operates into Islamic banks in 2014 while Victoria Islamic Bank officially opened in 2010. While the two Islamic banks with CAR lowest value is Bank Syariah Bukopin and Bank Syariah Mandiri. Bank Syariah Bukopin began operations since 2008, while the Bank Syariah Mandiri started operation since 1999.

Asset Quality

Table 3 Test for Difference among Group Means for NPF

<table>
<thead>
<tr>
<th></th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>5.061</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Tests using ANOVA showed that there were significant differences on the quality of assets of each bank. These results indicate, overall Islamic banks were able to maintain the quality of financing although there is a significant difference from the value of NPL. Each bank has a different policy significantly and berpenagruh signifikan on the value of NPL. The most significant value contained in the BCAS different. This condition is in line with the average value of NPF at BCA Syariah for four consecutive years dutur. Where the value of BCA Syariah NPF lowest among other banks. Therefore, based on the quality of assets, BCA Syariah entered on Islamic banks with asset management capabilities are quite good productive.

Moreover, the NPF also indicate the aggressiveness of the bank. This condition can be seen from the high value of NPF owned by Bank Syariah Mandiri. Bank Syariah Mandiri also have a low CAR. Thus, Bank Syariah Mandiri including Islamic banks category was brave enough to take risks and aggressive.

Profitability

Table 4 Test for Difference among Group Means for NOM

<table>
<thead>
<tr>
<th></th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi - Square</td>
<td>34.357</td>
<td>0.000</td>
</tr>
</tbody>
</table>

In testing with based on the ability of each of the banks to generate profits, there is a significant difference from each bank it demonstrates the ability of banks to generate profits of each Islamic bank is quite different. Banks that fall into the category able to generate earnings significantly is the Islamic Bank and Bank Mega Syariah. The high value of NOM shows the bank's ability to earn income and manage its operating expenses.

Liquidity

Table 5 Test for Difference among Group Means for Quick Ratio

<table>
<thead>
<tr>
<th></th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi - Square</td>
<td>31.905</td>
<td>0.000</td>
</tr>
</tbody>
</table>
Tests on components of the health value of quick ratio showed significant differences between each bank associated with the assessment of the quick ratio. Each bank has a policy that is fairly typical in terms of the management of short-term assets and short-term liabilities. The policy of which is influenced by the policy of the management and also of the period the bank has been operating on sharia. Two banks that have significant differences with other banks are Bank Mega Syariah and Bank Muamalat Indonesia, where the average value of the two banks is the lowest among other Islamic banks.

**RGEC Method**

Assessment of the bank include the risk profile, corporate governance, earnings, and capital. At the risk of a profile, the factors assessed are as follows

**Risk Profile Assessment**

Assessment of the risk profile of an assessment of the inherent risk and quality of risk management in the daily activities of the bank. Risks are assessed include credit risk, market risk, liquidity risk, operational risk, legal risk, strategic risk, compliance risk, reputation risk, the risk of returns and investment risk.

**Credit risk**

Table 6 Value Credit Risk 2015

<table>
<thead>
<tr>
<th></th>
<th>BMI</th>
<th>BVS</th>
<th>BRIS</th>
<th>BJBS</th>
<th>BNIS</th>
<th>BSM</th>
<th>BPS</th>
<th>BSB</th>
<th>BCAS</th>
<th>MSI</th>
<th>BTPNS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financing low quality / Total financing</td>
<td>19.5%</td>
<td>18.9%</td>
<td>20.2%</td>
<td>19.4%</td>
<td>7.7%</td>
<td>19.0%</td>
<td>22.4%</td>
<td>16.2%</td>
<td>17.7%</td>
<td>3.6%</td>
<td>-48.7%</td>
</tr>
<tr>
<td>Financing problems / Total financing</td>
<td>7.11%</td>
<td>9.80%</td>
<td>4.9%</td>
<td>6.9%</td>
<td>2.5%</td>
<td>6.1%</td>
<td>4.3%</td>
<td>2.63%</td>
<td>2.99%</td>
<td>0.70%</td>
<td>39.2%</td>
</tr>
<tr>
<td>CKPN reduced financing problems of financing problems / Total financing after deducting CKPN</td>
<td>5.3%</td>
<td>4.4%</td>
<td>3.4%</td>
<td>5.3%</td>
<td>1.3%</td>
<td>3.9%</td>
<td>1.5%</td>
<td>1.5%</td>
<td>3.0%</td>
<td>-0.6%</td>
<td>3.7%</td>
</tr>
<tr>
<td>Foreclosed assets / Total assets</td>
<td>1.2%</td>
<td>0.8%</td>
<td>0.2%</td>
<td>0.4%</td>
<td>0%</td>
<td>0.0013%</td>
<td>0.05%</td>
<td>0%</td>
<td>0.1%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Average</td>
<td>8.28%</td>
<td>8.48%</td>
<td>7.18%</td>
<td>8.00%</td>
<td>2.88%</td>
<td>7.25%</td>
<td>7.06%</td>
<td>5.08%</td>
<td>5.95%</td>
<td>0.93%</td>
<td>22.9%</td>
</tr>
<tr>
<td>Composite Rating</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
</tbody>
</table>

Based on the rating of the risks inherent to credit risk, the BCA Syariah, BNI Syariah and Bank Syariah in the category 1 or low. In this position, taking into account the business activities conducted by the Bank, the possibility of losses faced by banks of credit risk as very low during the period certain time. Meanwhile, Bank Muamalat, Bank Victoria Syariah, Bank BRI Syariah, Bank Syariah Mandiri, Bank Mega Syariah, Bank Panin Syariah and Bank Syariah Bukopin enter the category 2 or a low to moderate. In that category, the losses suffered by banks because of the
possibility of credit risk up to a certain time in the future to get in on the low
category. While one bank, namely Maybank Syariah Indonesia, get in on the
classification of moderate or 3. This classification indicates the losses that may occur
due to the credit risk on the bank's activities the odds are pretty high.

**Liquidity risk**
The results of the risk assessment of liquidity of each bank are as follows:

<table>
<thead>
<tr>
<th>Table 7 Liquidity Risk Values 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BMI</strong></td>
</tr>
<tr>
<td>Total liquid assets / total assets</td>
</tr>
<tr>
<td>Total liquid assets / short-term financing</td>
</tr>
<tr>
<td>Average</td>
</tr>
<tr>
<td>Composite Rating</td>
</tr>
</tbody>
</table>

Table 2 shows the two ratios are used as a proxy for assessing liquidity risk faced by banks. Eleven banks have a composite score of 1. In the composite value, possible losses to the banks for their liquidity risk as very low. This is because the bank has a very high liquid assets that can cover the needs if there are short-term liabilities maturing.

While one bank, Bank Victoria Syariah enter the category 2, which means the possibility of bank losses because of the liquidity risk is low. This is due to the sufficiency of liquid assets to cover the liabilities in the category of short jangka adequate. Where the value of the assets likuidi quite well but have not logged in ketgori very adequate.

**Yield Risk**
The results of the risk assessment the yield of each bank are as follows:

<table>
<thead>
<tr>
<th>Table 8 Value Risk Yield 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BMI</strong></td>
</tr>
<tr>
<td>Based financing debts / financing for results-based</td>
</tr>
<tr>
<td>Composite Rating</td>
</tr>
</tbody>
</table>

From the results of the risk assessment Yield faced by the bank, the bank entered into the category of low (1). Category 1 indicates that the possibility of losses faced by banks because of the risk of yield is still relatively very low. This is
because funds pretty well diversified among contract yielding yielding fixed and stable with the covenants based on the results.

**Profitability**

Results for earnings factor is as follows:

**Table 9 Profitability Assessment 2015**

<table>
<thead>
<tr>
<th>BMI</th>
<th>BVS</th>
<th>BRIS</th>
<th>BJBS</th>
<th>BNIS</th>
<th>BSM</th>
<th>BPS</th>
<th>BSB</th>
<th>BCAS</th>
<th>MSI</th>
<th>BT PNS</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.2%</td>
<td>-2.4%</td>
<td>0.76%</td>
<td>0.25%</td>
<td>1.4%</td>
<td>0.56%</td>
<td>0.30%</td>
<td>1.12%</td>
<td>0.79%</td>
<td>0.96%</td>
<td>-20.1%</td>
</tr>
<tr>
<td>0.27%</td>
<td>-</td>
<td>1.81%</td>
<td>2.45%</td>
<td>0.7%</td>
<td>0.58%</td>
<td>0.34%</td>
<td>0.9%</td>
<td>0.95%</td>
<td>0.98%</td>
<td>-32.9%</td>
</tr>
<tr>
<td>4.90%</td>
<td>2.80%</td>
<td>6.66%</td>
<td>5.7%</td>
<td>8.25%</td>
<td>6.5%</td>
<td>9.34%</td>
<td>3.8%</td>
<td>3.14%</td>
<td>4.85%</td>
<td>6.5%</td>
</tr>
<tr>
<td>97.38%</td>
<td>119.1</td>
<td>93.79%</td>
<td>98.8%</td>
<td>89.6%</td>
<td>94.8%</td>
<td>99.5%</td>
<td>89.3%</td>
<td>91.99%</td>
<td>94.14%</td>
<td>192.6%</td>
</tr>
</tbody>
</table>

| Composite Rating | 2 | 4 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 5 | 2 |

Ratings of earnings using four components, namely ROA, NOM, NI, and ROA. Maybank Syariah Indonesia get a category 5. In this category, the profitability of banks have inadequate because earnings did not meet the target, unreliable and needs to be done to ensure continued profit improvement in the bank's future. This is due to very significant losses and losses may affect the bank's capital. While Victoria Islamic bank in the category 4, because the bank's performance in generating profit (profitability) is not adequate and the bank suffered losses. While other banks in category 2, ie profitability is adequate and capable of supporting the growth of the bank.

**Capital**

Results for capital are as follows:

**Table 10 Profitability Assessment 2015**

<table>
<thead>
<tr>
<th>BMI</th>
<th>BVS</th>
<th>BRIS</th>
<th>BJBS</th>
<th>BNIS</th>
<th>BSM</th>
<th>BPS</th>
<th>BSB</th>
<th>BCAS</th>
<th>MSI</th>
<th>BT PNS</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.36%</td>
<td>16.14%</td>
<td>15.8%</td>
<td>22.5%</td>
<td>15.5%</td>
<td>12.9%</td>
<td>18.7%</td>
<td>20.3%</td>
<td>16.3%</td>
<td>34.3%</td>
<td>38.4%</td>
</tr>
<tr>
<td>6.48%</td>
<td>13.8%</td>
<td>13.2%</td>
<td>22.3%</td>
<td>14.2%</td>
<td>10.1%</td>
<td>16.5%</td>
<td>19.0%</td>
<td>14.4%</td>
<td>31.8%</td>
<td>37.4%</td>
</tr>
<tr>
<td>52.5%</td>
<td>94.6%</td>
<td>94.9%</td>
<td>98.8%</td>
<td>91.6%</td>
<td>78.5%</td>
<td>88.2%</td>
<td>93.6%</td>
<td>88.2%</td>
<td>97.4%</td>
<td>97.4%</td>
</tr>
</tbody>
</table>

| Composite Rating | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |

Source: Processed Data

Components used for this study is the CAR, Core Capital / RWA, and Core Capital / Total Capital. Rate composite address all of the bank to get a composite score of 1. This shows the bank has capital that is adequate, able to cover losses and support the bank's expansion in the years to come.
Composite Rating
Overall composite ratings of the banks are as follow:

<table>
<thead>
<tr>
<th></th>
<th>BM</th>
<th>BS</th>
<th>BVS</th>
<th>BBS</th>
<th>BM</th>
<th>BS</th>
<th>BS</th>
<th>BS</th>
<th>BS</th>
<th>BS</th>
<th>BS</th>
<th>BS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk profile</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Credit risk</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Liquidity risk</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Risk Yield</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Profitability</td>
<td>2</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>5</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Capitalization</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Composite Rating</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

Composite assessment of 12 banks showed only 2 banks get 2 composite votes, while 10 other banks obtain a composite assessment 1. Thus, the overall level of health of Islamic commercial bank based RGEC very healthy method that is considered very capable in the face of turbulent external conditions and changes in business conditions of internal bank.

For the assessment of the overall health level is no mathematical formula is used. Assessment is based on a judgment by an analysis of the financial statements and annual report of each Islamic bank. After getting the results of judgment, assessment is used to provide the overall composite rating for each bank (Trisnawati 2014).

Management Behavior
Furthermore, the data CAMEL used for testing the soundness of banks using data CAMEL, reused to see the possibility of a fourth hypothesis of management behavior. Reddy (2011) uses three equations to test it. The equation basically adopted the Granger Causality test, where the dependent variable regressed the dependent variable itself, but given the lag of the back, as well as other variables given lag one backward.

Table 11 Hypothesis Testing

<table>
<thead>
<tr>
<th></th>
<th>NPF</th>
<th>NOM</th>
<th>CAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>NPF (-1)</td>
<td>0.005 *</td>
<td>0.188</td>
<td>-3.180 *</td>
</tr>
<tr>
<td>NOM (-1)</td>
<td>-0.016</td>
<td>0.772 *</td>
<td>-0.122</td>
</tr>
<tr>
<td>CAR (-1)</td>
<td>-0.007</td>
<td>-0.023 **</td>
<td>0.182 *</td>
</tr>
<tr>
<td>Quick Ratio (-1)</td>
<td>0.000</td>
<td>0.012 *</td>
<td>0.004</td>
</tr>
<tr>
<td>R2</td>
<td>0.91</td>
<td>0.72</td>
<td>0.63</td>
</tr>
</tbody>
</table>

* = Significant at 5%
** = Significant at 10%

The test results by using OLS to test the four hypotheses deliver results as shown in Table 11. On NPF equations, hypotheses bad management proved. That is a decrease in the efficiency in this case is represented by the net operation margin resulted in an increase in troubled loans. Likewise, the hypothesis of moral hazard, namely the decrease in capital resulting NPL ratio increased.
V. Conclusion

The conclusion of this study are

1. There are significant differences between any of shariah commercial banks related to the performance rating of the bank. By looking at the performance ratings of Islamic banks registered in Indonesia between 2010 and 2014, there are differences based on financial ratios at these banks. Significant differences were found in all ratios are used as the analysis, the ratio of CAR, NOM, NPF and the Quick Ratio.

2. Overall, through the measurement of CAMEL, shariah commercial banks are in the category of healthy. Because of all the ratios demonstrate its value as required by Bank Indonesia (Kaligis, 2013; Jacob, 2013). Based on these data, when using CAMEL, Islamic banks with CAR and best NPF is BCA Syariah. Meanwhile, if based on the ratio of NOM and the Quick Ratio, the Islamic banks with the best performance is BNI Syariah.

3. While measurements using methods RGEC, the Islamic banks in Indonesia in the category very healthy and quite healthy (Trisnawati, 2014; Lasta, et al, 2014). Based on testing using methods RGEC the Islamic Banks with the best performance are the Syariah BCA and BNI Syariah. This conclusion was obtained after looking at the components of the risk profile, the ability to obtain profits and capital.

4. This study tested four hypotheses on the behavior of management by Berger and DeYoung (1997). The test results indicate the occurrence of bad management hypothesis (Podpiera and Weill, 2008; Rossi, Schwaiger, and Winkler, 2005).

References


