Bank Health Level Analysis Using CAMELS and RGEC Methods on PT Bank Panin Dubai Syariah Ltd.

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Abstract: This research aims to rate Panin Dubai Syariah Bank’s health level and to investigate whether there are result differences of bank health level using both methods. This study was conducted on PT Bank Panin Dubai Syariah Ltd. Financial Statements 2016 and 2017. The results of this study are: (1) When using CAMELS the bank was categorized as fairly sound in 2016 for both financial and management factors and in 2017 the bank was categorized as fairly sound for the financial and unsound for management; (2) When using RGEC the results were different, which depended on each aspect; (3) There were not found many differences in the results of both methods.

Keywords: CAMELS Analysis, RGEC Analysis, Bank Health Level, Bank Soundness, Sharia Bank

INTRODUCTION

Bank is a financial intermediary institution that was established with the authority to receive deposits, to lend money, and to issue promissory notes [1]. As its meaning, the bank functions as fund collector and fund distributor for the society. Every bank in Indonesia aims to support national development performance to increase economic equity and growth, and national stability for welfare improvement. Therefore, it is also important for bank customers to pay attention to bank growth by finding out the bank’s health level. Bank health level is a bank’s ability in obeying bank methods and rules to operate their activities.

CAMELS and RGEC methods can be used by a bank to rate its health level and also to improve and maintain its performance quality. The purpose of this research is to measure the health level of PT Bank Panin Dubai Syariah Ltd. in 2016 and 2017. This research also may contribute some information for the people, especially bank customers, about the importance of knowing bank health level. The result of this study can also be used as a reference for future researches. Further, the result may imply people’s trust in a bank by knowing its health level.

LITERATURE REVIEW AND RESEARCH QUESTIONS

In order to come along with the topic that will be discussed in this paper, here are some definitions related to this research.

1. Definition of Bank

   Taswan (2010) said bank is an institution or a company that collects funds in the form of current account, deposits, and others from surplus spending unit party then locate it back to the deficit spending
RESEARCH METHOD

In this research, I did Documenting method to the secondary data such as the Financial Statements and Good Corporate Governance Report of PT Bank Panin Dubai Syariah Ltd. for the years 2016 and 2017. I also did Literature Study to look for other references from books and journals that were related to this research. Those data will be analyzed using CAMELS and RGEC methods.

1. CAMELS

CAMELS is one of the methods that can be used to measure a bank’s health. This method was issued in Bank of Indonesia regulation concerning Bank Health Level Rating System of Commercial Islamic Bank and Islamic Bank Business Unit No. 9/1/PBI/2007 [3]. This method measures six aspects. These aspects are:

a. Capital

To measure this aspect, I used CAR (Capital Adequacy Ratio). This ratio measures capital ability to cover possible loss that comes from credit and possible loss on Marketable Securities. CAR is formulated as: [2]

\[ CAR = \frac{\text{Capital}}{\text{Risk Weighted Assets}} \times 100\% \]

TABLE I. CAR Criteria

| Rank | Status | Criteria |
|------|--------|----------|
| 1    | Very Sound | CAR ≥ 12% |
| 2    | Sound | 9% ≤ CAR < 12% |
| 3    | Fairly Sound | 8% ≤ CAR < 9% |
| 4    | Less Sound | 6% ≤ CAR < 8% |
| 5    | Unsound | CAR ≤ 6% |

Source: Bank Indonesia Circular Letter No. 9/24/DPBS 2007 [4]

b. Assets

This aspect is measured using KAP ratio. It is measured to know the quality of sharia bank’s productive assets [12]. This is the formula of KAP ratio:

\[ \text{KAP} = 1 - \frac{\text{Classified productive assets (AYPD)}}{\text{Productive assets}} \]

TABLE II. KAP Criteria

| Rank | Status | Criteria |
|------|--------|----------|
| 1    | Very Sound | KAP > 0.99 |
| 2    | Sound | 0.96 < KAP ≤ 0.99 |
| 3    | Fairly Sound | 0.93 < KAP ≤ 0.96 |
| 4    | Less Sound | 0.90 < KAP ≤ 0.93 |
| 5    | Unsound | KAP ≤ 0.90 |

Source: Bank Indonesia Circular Letter No. 9/24/DPBS 2007 [4]

c. Management

TABLE V. Current Ratio Criteria

| Rank | Status | Criteria |
|------|--------|----------|
| 1    | Very Sound | CR > 25% |
| 2    | Sound | 20% < CR ≤ 25% |
| 3    | Fairly Sound | 15% < CR ≤ 20% |
| 4    | Less Sound | 10% < CR ≤ 15% |
| 5    | Unsound | CR ≤ 10% |

Source: Bank Indonesia Circular Letter No. 9/24/DPBS 2007 [4]

The measurement of this aspect is performed using a list of questions related to management performance in collecting customers’ funds. Unfortunately, due to limitations to get the data due to bank’s secrecy, I have projected the management performance rating into NPM (Net Profit Margin) ratio. This ratio shows a bank’s ability to produce net income that comes from its main operation business (Kasmir, 2016). NPM ratio is formulated as: [9]

\[ \text{NPM} = \frac{\text{Net income}}{\text{Operational Income}} \times 100\% \]

TABLE III. NPM Criteria

| Rank | Status | Criteria |
|------|--------|----------|
| 1    | Very Sound | NPM ≥ 100% |
| 2    | Sound | 81% ≤ NPM < 100% |
| 3    | Fairly Sound | 66% ≤ NPM < 81% |
| 4    | Less Sound | 51% ≤ NPM < 66% |
| 5    | Unsound | NPM ≤ 51% |

Source: Bank Indonesia Circular Letter No. 9/24/DPBS 2007 [4]

d. Earnings

In the list of Bank Indonesia Regulation No. 9/1/PBI/2007 [3] is mentioned that earnings aspect can be measured with Return on Assets (ROA) ratio. It represents bank’s success in managing its assets to improve income. ROA is measured with this formula: [10]

\[ \text{ROA} = \frac{\text{Income}}{\text{Total Assets}} \times 100\% \]

TABLE IV. ROA Criteria

| Rank | Status | Criteria |
|------|--------|----------|
| 1    | Very Sound | ROA ≥ 1.5% |
| 2    | Sound | 1.25% ≤ ROA < 1.5% |
| 3    | Fairly Sound | 0.5% ≤ ROA < 1.25% |
| 4    | Less Sound | 0% ≤ ROA < 0.5% |
| 5    | Unsound | ROA < 0% |

Source: Bank Indonesia Circular Letter No. 9/24/DPBS 2007 [4]

e. Liquidity

Fred Weston mentioned that liquidity ratio is a ratio that shows bank ability in fulfills its short-term liabilities. This aspect can be measured using Current ratio that is formulated as:

\[ \text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}} \times 100\% \]
f. Sensitivity to market risks

NOP (Net Open Position) ratio can be used to measure this aspect. This ratio measures capital ability to cover possible risks that might appear as an effect of exchange rate changes [12]. This is the formula of NOP ratio:

\[
\text{NOP} = \frac{\text{Foreign current assets - Foreign current liabilities}}{\text{Total Capital}} \times 100\%.
\]

| Rank | Criteria |
|------|----------|
| 1    | There are no NOP violation |
| 2    | Had done violation, but it is also had been solved in quarterly judgment period. |
| 3    | 0% < NOP ratio < 10%  
Violation frequency is low |
| 4    | 10% < NOP ratio < 25%  
Violation frequency is quite high |
| 5    | NOP ratio ≥ 25%  
Violation frequency is high |

Source: Bank Indonesia Circular Letter No. 9/24/DPBS 2007 [4]

After measured each aspect of CAMELS. The judgment is divided into two parts. First is the financial factors of CAMELS aspects, those are Capitals, Assets, Earnings, Liabilities, and Sensitivity. Those are calculated to get credit values and weight to determine bank health rate. Next is management factor which only consists management aspect (NPM ratio). In Table VII is a summary of ratio to calculate the credit values from each aspect and the weight of each aspect. Credit values of each aspect are multiplied by its weight to know its net values. Then in Table VIII is the rate of bank health level.

| Aspect      | Credit Value | Weight (%) |
|-------------|--------------|------------|
| Capital     | Ratio + 1    | 25         |
| Assets      | 15.5% – Ratio + 1 | 50         |
| Earnings    | Ratio + 1    | 10         |
| Liabilities | Ratio        | 10         |
| Sensitivity | Ratio × 0.05  | 5          |

Source: Bank Indonesia Circular Letter No. 9/24/DPBS 2007 [4]

### Table VIII: Bank Health Level Rates

| Net Value | Status |
|-----------|--------|
| 100-81    | Sound  |
| <81-66    | Fairly Sound |
| <66-51    | Less Sound |
| <5-0      | Unsound |

Source: Bank Indonesia Circular Letter No. 9/24/DPBS 2007 [4]

### 2. RGEC

Another method to measure the bank health is RGEC. The Financial Services Authority (OJK) had published RGEC method in 2014 under OJK Regulation No. 10/SEOJK.03/2014 concerning Rate of Bank Health Levels of Commercial Islamic Bank and Islamic Financial Services Unit [11]. The assessment of RGEC method covers 4 aspects, those are:

#### Risk Profile

The assessment of risk profile is judging some inherent risks and the quality of management risk application in doing bank activities. To measure this aspect I have used NPL ratio and LDR.

a. NPL (Non-Performing Loan)

NPL ratio can measure some inherent risks in order to rank bank health. This ratios is formulated as: [9]

\[
\text{NPL} = \frac{\text{Non performing loan}}{\text{Total Credit}} \times 100\%
\]

| Rank | Status  | Criteria |
|------|---------|----------|
| 1    | Very Sound | NPL < 2% |
| 2    | Sound   | 2% < NPL < 5%  |
| 3    | Fairly Sound | 5% < NPL < 8%  |
| 4    | Less Sound | 8% < NPL < 12% |
| 5    | Unsound | NPL ≥ 12% |

Source: Bank Indonesia Circular Letter No. 13/24/DPNP 2011 [5]

b. LDR (Loan to Deposit Ratio)

This ratio is used to measure the composition of total credit that had been lent to customers compared to total customers’ funds. LDR is calculated as: [9]

\[
\text{LDR} = \frac{\text{Total Credit}}{\text{Total Customer Funds} + \text{Capital}} \times 100\%
\]

| Rank | Status | Criteria |
|------|--------|----------|
| 1    | Very Sound | LDR < 75% |
| 2    | Sound   | 75% < LDR < 85%  |
| 3    | Fairly Sound | 85% < LDR < 100%  |
| 4    | Less Sound | 100% < LDR < 120% |
| 5    | Unsound | LDR > 120% |

Source: Bank Indonesia Circular Letter No. 13/24/DPNP 2011 [5]
Good Corporate Governance (GCG)
The measurement of GCG should be guided by the regulation of the Financial Services Authority concerning GCG implementation. Moreover, GCG rating has to be done by the bank itself using indicators listed in OJK Circular Letter No. 10/SEOJK.03/2014. So, for this study I have used GCG Report of PT Bank Panin Dubai Syariah Ltd. for the years 2016 and 2017 as a reference to judge GCG aspect. In Table XI is the information status for GCG ranking.

**TABLE XI.** GCG Ranking

| Rank | Status     |
|------|------------|
| 1    | Very Good  |
| 2    | Good       |
| 3    | Acceptable |
| 4    | Poor       |
| 5    | Very Poor  |

Source: Bank Indonesia Circular Letter No. 15/15/DPNP 2013 [6]

**Earnings**
ROA ratio represents bank’s success in managing its assets to improve income. It is measured by this formula: [10]

\[
\text{ROA} = \frac{\text{Income}}{\text{Total Assets}} \times 100\%
\]

**TABLE XII.** ROA Criteria

| Rank | Status     | Criteria          |
|------|------------|-------------------|
| 1    | Very Sound | ROA > 1.5%        |
| 2    | Sound      | 1.25% ≤ ROA < 1.5% |
| 3    | Fairly Sound | 0.5% ≤ ROA < 1.25% |
| 4    | Less Sound | 0% ≤ ROA < 0.5%   |
| 5    | Unsound    | ROA ≤ 0%          |

Source: Bank Indonesia Circular Letter No. 9/24/DPBS 2007 [4]

**Capital**
To measure this aspect, I used CAR ratio which is formulated as: [2]

\[
\text{CAR} = \frac{\text{Capital}}{\text{Risk Weighted Assets}} \times 100\%
\]

**TABLE XIII.** CAR Criteria

| Rank | Status | Criteria          |
|------|--------|-------------------|
| 1    | Very Sound | CAR > 12%        |
| 2    | Sound  | 9% ≤ CAR < 12%   |
| 3    | Fairly Sound | 8% ≤ CAR < 9%   |
| 4    | Less Sound | 6% ≤ CAR < 8%   |
| 5    | Unsound | CAR ≤ 6%         |

Source: Bank Indonesia Circular Letter No. 9/24/DPBS 2007 [4]

**RESULT AND DISCUSSION**
1. CAMELS Method
The calculation of Capital aspect that had been measured with CAR is in Table XIV. The ratio result for 2016, the bank was categorized as VERY SOUND and safe to cover loss possibility that might happen that comes from credit loan. Next in 2017, the bank’s CAR was categorized as SOUND. As it is measured, the 2017’s CAR is lower than 2016. It might happen because of the decrease of capital and risk weight assets.

**TABLE XIV.** CAR Calculation Result (in billion rupiah)

| Year | Total Capital | Risk Weighted Assets | CAR (%) |
|------|---------------|----------------------|---------|
| 2016 | 1,174,757,234 | 6,463,807,132       | 18.17   |
| 2017 | 691,287,147   | 6,009,075,773       | 11.51   |

Source: PT Bank Panin Dubai Syariah Ltd. Financial Statements 2016 and 2017 and processed data [7]

Next is assets quality which was measured with KAP ratio and the result is in Table XV.

**TABLE XV.** KAP Calculation Result (in billion rupiah)

| Year | Classified Assets | Productive Assets | KAP (%) |
|------|-------------------|-------------------|---------|
| 2016 | 334,529,347       | 6,346,565,907    | 0.95    |
| 2017 | 864,810,139       | 6,542,900,960    | 0.87    |

Source: PT Bank Panin Dubai Syariah Ltd. Financial Statements 2016 and 2017 and processed data [7]

It is shown in 2016 that the bank was categorized as SOUND in managing its assets. While, in 2017 KAP ratio drastically went down and the bank was categorized as UNSOUND. The decrease of KAP ratio is an effect of classified productive assets’ increase that was almost 3 times bigger than in 2016, which is not balanced with the increase of the bank’s productive assets in 2017.

The third aspect is management. This aspect is measured with NPM ratio. The result of NPM ratio calculation can be seen in Table XVI.

**TABLE XVI.** NPM Calculation Result (in billion rupiah)

| Year | Net Income | Operational Income | NPM (%) |
|------|------------|--------------------|---------|
| 2016 | 19,540,914 | 27,495,027         | 71.1    |
| 2017 | (968,851,297) | (962,121,876) | -       |

Source: PT Bank Panin Dubai Syariah Ltd. Financial Statements 2016 and 2017 and processed data [7]

The results show that in 2016 the bank was categorized as FAIRLY SOUND. Then, the next year the bank was categorized as UNSOUND. It is because the bank didn’t produce any profits.

Earning, the fourth aspect of CAMELS is measured with ROA ratio. In Table XVIII is the result of ROA ratio.
In 2016 the bank was categorized as LESS SOUND for its ability to manage its assets for improving income. While for 2017, we know that the bank could not make any profit. So, the bank was categorized as UNSOUND. One of reasons of the bank loss might be because of a big provision (reversal of provision) for impairment losses that almost reached a million. Moreover, the provision was dominated by musharakah financing.

Next, liquidity is measured with current ratio. In Table XVIII is the calculation result of current ratio. The bank was categorized as FAIRLY SOUND in both years.

| Year | Current Assets | Current Liabilities | CR (%) |
|------|---------------|---------------------|--------|
| 2016 | 1,106,053,825 | 6,998,301,785 | 15.81 |
| 2017 | 1,391,896,590 | 7,857,689,259 | 17.71 |

Source: PT Bank Panin Dubai Syariah Ltd. Financial Statements 2016 and 2017 and processed data [7]

Last in CAMELS method is sensitivity to market risk aspect. With NOP ratio, this aspect is measured and the result is that in two years the bank was categorized as FAIRLY SOUND.

| Year | Deviation of Foreign Current Assets and Liabilities | Total Capital | NOP (%) |
|------|-----------------------------------------------------|---------------|--------|
| 2016 | 90,251                                              | 1,174,757,234 | 0.01   |
| 2017 | 104,271                                              | 691,287,147  | 0.02   |

Source: PT Bank Panin Dubai Syariah Ltd. Financial Statements 2016 and 2017 and processed data [7]

Finally, after measuring the six aspects, I have calculated the net values for the financial factors of CAMELS. In 2016, the net value was 76.52 and the bank was categorized as FAIRLY SOUND. For 2017, the net value was 74.62 and the bank was categorized as FAIRLY SOUND as well. Even though in both years the bank was in the same category, there was 1.9% decrease in the financial factors’ net values. It happened because in 2017 the bank had a significant loss and it was affecting the financial factors of CAMELS, especially on earnings aspect. The weighted credit values of the bank’s financial factors are in Table XX and Table XXI.

2. RGEC Method

The first aspect is risk profile. For 2016, the bank’s NPL was categorized as SOUND. Next in 2017, the bank’s NPL drastically went down to UNSOUND. It happened because there was a significant increase in non-performing loans, but the amount of total credit stayed in the same range number. Then, for LDR ratio the measurement showed that in 2016 the bank’s LDR was categorized as FAIRLY SOUND. In the next year, the bank’s LDR was SOUND. In Tables XXII and XXIII are shown the calculation of NPL and LDR ratios.

| Year | Total Credit | Customer Funds and Capital | LDR (%) |
|------|--------------|----------------------------|---------|
| 2016 | 6,341,151,772 | 7,118,874,005 | 89.08 |
| 2017 | 6,534,000,693 | 7,697,923,466 | 84.88 |

Source: PT Bank Panin Dubai Syariah Ltd. Financial Statements 2016 and 2017 and processed data [7]

The second aspect is Good Corporate Governance or GCG. I have used GCG Report of PT Bank Panin Dubai Syariah. In 2016, it was mentioned that the bank was in a GOOD condition of GCG and in 2017 the bank was in ACCEPTABLE condition. Lower GCG rank in 2017 indicated that PT Bank Panin Dubai Syariah Ltd.’s performance was not as good as
the previous year. It was because the bank did not make any profit. The bank’s self-assessments of GCG is in Table XXIV.

**TABLE XXIV. GCG Self-Assessment**

| Year | Level | Status     |
|------|-------|------------|
| 2016 | 2     | Good       |
| 2017 | 3     | Fairly Good|

Source: PT Bank Panin Dubai Syariah Ltd. GCG Report 2016 and 2017 [7]

Measured by ROA ratio, here are the results of earnings aspect. In 2016 the bank was categorized as LESS SOUND for its ability to manage its assets for improving income. While for 2017 the bank was categorized as UNSOUND. One of the reasons of the bank’s loss was because there was a big provision (reversal of provision) for impairment losses that almost reached a million. In Table XXV is the result of ROA ratio.

**TABLE XXV. ROA Calculation Result (in billion rupiah)**

| Year | Income | Total Assets | ROA (%) |
|------|--------|--------------|---------|
| 2016 | 28,462,795 | 8,757,963,603 | 0.33    |
| 2017 | (974,802,712) | 8,629,275,047 | -       |

Source: PT Bank Panin Dubai Syariah Ltd. Financial Statements 2016 and 2017 and processed data [7]

The last aspect of RGEC is capital that had been measured with CAR. The result for 2016 is that the bank’s capital in 2016 was VERY SOUND. Next in 2017, the bank’s CAR was categorized as SOUND. CAR calculation is found in Table XXVI.

**TABLE XXVI. CAR Calculation Result (in billion rupiah)**

| Year | Total Capital | Risk Weighted Assets | CAR (%) |
|------|--------------|---------------------|--------|
| 2016 | 1,174,757,234 | 6,465,807,132       | 18.17  |
| 2017 | 491,287,147   | 6,005,075,773       | 11.51  |

Source: PT Bank Panin Dubai Syariah Ltd. Financial Statements 2016 and 2017 and processed data [7]

**CONCLUSION**

Based on the study that had been done, the conclusion that we got which will answer the research question of this paper as well, are:

1. By CAMELS, I divided the conclusion into two parts. In 2016, PT Bank Panin Dubai Syariah Ltd.’s financial factors were FAIRLY SOUND. Then, for the management factor which was measured by NPM ratio showed that the bank was FAIRLY SOUND as well. While for 2017, the bank’s financial factors was FAIRLY SOUND and the bank’s management factor was measured as UNSOUND because they could not make profit.

2. By RGEC, I have studied four aspects of RGEC and have concluded that in 2016, the Risk Profile aspect which was measured by NPL and LDR were SOUND and FAIRLY SOUND. The second aspect, which was GCG, was categorized as GOOD. Next, Earnings aspect was LESS SOUND. The last aspect, Capital, was categorized as VERY SOUND. For 2017, the bank’s Risk Profile was UNSOUND by NPL and SOUND by LDR. Next, the GCG aspect was judged as FAIRLY GOOD. Then, Earnings aspect was UNSOUND. The last aspect, the bank’s capital, was SOUND.

3. If it is only seen by the ratios measurement that had been done to judge the bank health level, there were not many result differences in CAMELS and RGEC methods. It is because both methods have some similar ratios. However, if it is seen as a whole measurement method, RGEC is more detailed. Each aspect of RGEC is counted by ratio and judged by qualitative measurement as a support. Moreover, the qualitative measurement can affect the level of bank health that previously had been counted by ratio. On the other hand, CAMELS method emphasizes the measurement on financial factors.

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