



## Measuring The Financial Ratio Of BNI Syariah Bank Using Camel Analysis

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### ABSTRACT

This study was conducted to determine the soundness of BNI Syariah Bank when reviewed using CAMEL analysis. As stated in Article 3 of Bank Indonesia Regulation Number 9/1/PBI/2007, the financial ratios used to measure the health of a bank are Capital, Asset, Management, Earning, and Liquidity (CAMEL). The research method used is the quantitative method, with data analysis of CAR, KAP, NPM, REO, ROA, CR. With 5 composite ratings, rating 1 reflects the bank is classified as very good, rating 2 is classified as good, rating 3 is quite good, rating 4 is classified as poor, and rating 5 is sensitive. The results of this study in 2017 received a Healthy predicate with a final score of 91.2 from the CAMEL factor, in 2018 it received a final score of 89.8 with a healthy predicate, in 2019 it received a final score of 88.7 with a healthy predicate, and in 2020 it received a healthy predicate. final score of 83.8 with a healthy predicate.

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### 1. Introduction

The health of a bank is the ability of the bank to carry out operational activities in the banking sector normally and be able to fulfill all its obligations properly, in ways that are in accordance with applicable banking. Lately, the terms healthy or unhealthy banks are increasingly being heard as mergers and liquidations are always associated with bank health. Therefore, a bank needs to be analyzed to find out its condition after carrying out its operational activities within a certain period of time. The analysis is carried out in the form of bank soundness level. The bank's health assessment aims to determine whether the bank is in a healthy, moderately healthy, unhealthy and unhealthy condition because its activities involve money and the trust given by the public. The health or financial condition of a bank is in the interest of all related parties, whether owners, managers (management) or the public who use bank services. For banks, the final results of the assessment of the bank's condition can be used as a means of determining future business strategies, while for Indonesian banks, it can be used, among others, as a means of determining and implementing strategies in bank supervision.

CAMEL analysis is a method used to assess the soundness of a bank. CAMEL analysis itself consists of Capital, Asset, Management, Earning, and Liquidity. As stated in Article 3 of Bank Indonesia regulation number 9/1/PBI/2007, the financial ratios used to measure the soundness of a bank are by using CAMEL analysis. These aspects use financial ratios that are presented through bank financial statements which are published annually. Based on the above background, the problems that will be studied are: "How is the health level of BNI Syariah Bank if it is reviewed with CAMEL analysis."

### 2. Method

As stated in Bank Indonesia Regulation No. 6/10/PBI/2007 concerning Rating System for Commercial Bank Soundness Based on Sharia Principles, banks are required to carry out activities based on prudential principles and sharia principles in order to maintain or improve the soundness of banks. One way to assess the soundness of a bank is by using the CAMEL approach. Namely an assessment of the factors that influence the condition and development of a bank including capital, asset quality, management, earnings and liquidity. Based on Bank Indonesia Regulation Number 9/1/PBI/2007 Article 9, the Composite Rating is determined as follows:



TABLE 1  
COMPOSITE RATING

No	Composite Rating	description
1	Rating 1	Reflects that the bank is classified as very good
2	Rating 2	Reflects that the bank is classified as very good
3	Rating 3	Reflects that the bank is classified as very good
4	Rating 4	Reflects that the bank is classified as very good
5	Rating 5	Reflecting that banks are classified as very sensitive to the negative effects of economic conditions

Source: Bank Indonesia Regulation Number 9/1/PBI/2007 article 9

The assessment of factors and components is carried out using a credit system (reward system) which is stated in a credit score of 0 to 100. Then, the results of the assessment can be reduced by a credit score for the implementation of the provisions whose sanctions are associated with the assessment of the soundness of the bank.

TABLE 2.  
BANK SOUNDNESS LEVEL WITH CAMEL METHOD

CAMEL Credit Score Predicate	Predicate
81-100	Healthy
66-80	Healthy enough
51-65	Unwell
0-50	Not healthy

Source: banking management (Kasmir, 2000)

#### a. Capital

To assess the soundness of a bank, an assessment of the capital factor includes an evaluation of the bank's capital adequacy and bank capital management. Calculation of bank capital refers to the Minimum Capital Adequacy Requirement determined by Bank Indonesia and banks must pay attention to the bank's risk profile in the analysis of capital adequacy. The capital assessment aims to assess the bank's capital adequacy in securing position risk exposure and anticipating future exposures.

TABLE 3.  
CAR . ANALYSIS RATING CRITERIA

No	Composite Rating	Criteria
1	Rating 1	$CAR \geq 11\%$
2	Rating 2	$9,5\% \leq CAR < 11\%$
3	Rating 3	$8\% \leq CAR < 9,5\%$
4	Rating 4	$6,5\% \leq CAR < 8\%$
5	Rating 5	$CAR \leq 6,5\%$

Source: Banking and Financial Literacy (Ismanto, 2019)

#### b. Aset Quality

Asset quality assessment aims to measure the condition of productive assets in order to maintain asset quality and calculate allowance for asset losses due to credit risk which will affect the bank's capital ratio. This calculation ratio called KAP is used to measure the quality of bank assets by comparing Classified Earning Assets (APYD) with Earning Assets. To measure the quality of bank assets, KAP parameters are used as in table 8 using the following formula.

TABLE 4  
KAP ANALYSIS RATING CRITERIA NO RATING CRITERIA

No	Composite Rating	Criteria
1	Rating 1	$KAP \geq 0,99$
2	Rating 2	$0,96 < KAP \leq 0,99$
3	Rating 3	$0,93 < KAP \leq 0,96$
4	Rating 4	$0,90 < KAP \leq 0,93$
5	Rating 5	$KAP \leq 0,90$

Source: Banking and Financial Literacy (Ismanto, 2019)

#### c. Management

In the banking business, management becomes very important because of the many risks that arise from providing credit to customers. The success of the banking business depends on the adequacy of bank resources which are managed effectively and efficiently by banking management. The management aspect is proxied by considering the Net Profit Margin Ratio (NPM). This ratio shows how management manages resources and uses or allocates funds efficiently. So that the ratio value obtained is directly

multiplied by the CAMEL Weight value. (Isma, 2016)

TABLE 5.  
NPM ANALYSIS RATING CRITERIA

No	Composite Rating	Criteria
1	Rating 1	$NPM \geq 100\%$
2	Rating 2	$81\% < NPM \leq 100\%$
3	Rating 3	$66\% < NPM \leq 81\%$
4	Rating 4	$51\% < NPM \leq 66\%$
5	Rating 5	$NPM \leq 51\%$

Source: Banking and Financial Literacy (Ismanto, 2019)

d. Profitability (Earning)

An assessment of the rentability of a BPR can provide big money benefits for the BPR itself in knowing the condition and ability of the BPR to generate profits and for a certain period by utilizing the available resources in order to support the operational activities and capital of the BPR Quantitative assessment of bank profitability is carried out by evaluating several ratios as follows:

- 1) Operational Efficiency Ratio (REO). This ratio is the main ratio used in the assessment of BPR profitability. The operational efficiency ratio compares BPR's operating costs in the last 12 months with operating income in the same period. This ratio aims to measure the efficiency and ability of a BPR in carrying out its operational activities

TABLE 6.  
REO ANALYSIS RATING CRITERIA

No	Composite Rating	Criteria
1	Rating 1	$BOPO \leq 83\%$
2	Rating 2	$83\% > BOPO \leq 85\%$
3	Rating 3	$85\% < BOPO \leq 87\%$
4	Rating 4	$87\% < BOPO \leq 89\%$
5	Rating 5	$BOPO > 89\%$

Source: Banking and Financial Literacy (Ismanto, 2019)

- 2) Return On Assets (ROA). ROA Is the ratio used to measure the ability of BPR in generating profit before tax to total assets owned. ROA Calculated by giving earnings before tax (EBT) in the last 1 year with total assets. The BPR's ability to generate profit before tax increases by utilizing its assets. $ROA=EBT/TA$  100%

TABLE 7  
ROA ANALYSIS RATING CRITERIA

No	Composite Rating	Criteria
1	Rating 1	$BOPO \leq 83\%$
2	Rating 2	$83\% > BOPO \leq 85\%$
3	Rating 3	$85\% < BOPO \leq 87\%$
4	Rating 4	$87\% < BOPO \leq 89\%$
5	Rating 5	$BOPO > 89\%$

Source: Banking and Financial Literacy (Ismanto, 2019)

e. Liquidity

The last factor is the Liquidity factor. The liquidity aspect shows the level of the bank's ability to pay off its short-term obligations. The definition of liquidity is the ability to provide funds to meet deposit withdrawals and requests for credit and other obligations that have matured. A bank is said to be liquid if the bank concerned can pay all its debts, especially savings deposits, current accounts, and time deposits when billed and can also fulfill all credit applications that are eligible to be financed. (Rokhaeni, 2019).

Quantitative assessment of liquidity factor is done by calculating financial ratios including cash ratio (cash ratio). The liquidity ratio provides the primary means of assessing a bank's liquidity position. (Ismanto, 2019).

TABLE 8  
CR . ANALYSIS RATING CRITERIA

No	Composite Rating	Criteria
1	Rating 1	$CR \geq 4,80\%$
2	Rating 2	$4,05\% \leq CR < 4,80$
3	Rating 3	$3,30\% \leq CR < 4,05$
4	Rating 4	$2,55\% \leq CR < 3,30$
5	Rating 5	$CR \leq 2,55$

Source: Banking and Financial Literacy (Ismanto, 2019)



## 2.1 Framework of Thought

Based on a theoretical review that explains the Bank Soundness Level Analysis with the CAMEL method. The author compiles a framework of thoughts on the analysis of bank soundness with the CAMEL method as shown in the following figure:

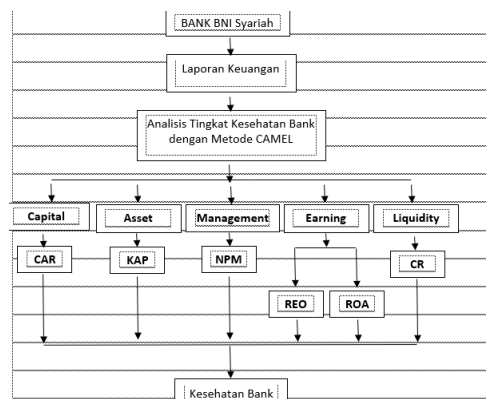


Figure 1. Framework of Thought

## 2.2 Population and Sample

The population used is the financial statements of Bank BNI Syariah which are listed on the Indonesia Stock Exchange with the website address [www.idx.co.id](http://www.idx.co.id). The sample used is the financial statements of Bank BNI Syariah for 2017, 2018, 2019, 2020. Researchers use data collection methods in the following ways: Documentation Techniques, Literature (Source Library). Literature model data collection technique is a technique of collecting research data and information sourced from library textual media such as writing someone's scientific work in the form of papers, articles, research reports, books, pictures, photos, tables, graphs, certain symbols or symbols (Muliawan, 2014).

## 2.3 Data Analysis Techniques

Data Analysis Techniques is a process of systematically finding and organizing the data obtained, then teaching it units, selecting the data used in determining conclusions that are understood by researchers and others. (Purba, 2021). The data analysis technique in this study is to analyze quantitative data expressed by numbers with the following calculations:

1. Adequacy of Fulfillment of Minimum Capital

$$CAR = \frac{\text{core} + \text{supplementary capital}}{ATMR}$$

By Credit Score:

$$nk = 1 + \frac{\text{rasio CAR}}{0,1\%} \times 1$$

2. Earning Asset Quality (KAP)

$$KAP = \frac{APYD}{AP} \times 100\%$$

By Credit Score:

$$nk = \frac{15,5\% - \text{rasio KAP}}{0,15\%}$$

3. Net Profit Margin (NPM)

$$NPM = \frac{\text{net profit}}{\text{operating profit}} \times 100\%$$

4. Rasio Efisiensi Operasional (REO)

$$REO = \frac{BO}{PO} \times 100\%$$

By Credit Score:

Adequacy Ratio (CAR).

$$nk = \frac{100\% - \text{rasio REO}}{0,08\%} \times 1$$

5. Return On Assets (ROA)

This ratio is formulated:

$$ROA = \frac{EBT}{TA} \times 100\%$$

By Credit Score:

$$nk = \frac{\text{rasio ROA}}{0,015\%} \times 1$$

6. Cash Ratio (CR)

This ratio is formulated:

$$CR = \frac{\text{CaCash\&Cash equivalents}}{\text{Current Payables}}$$

By Credit Score:

$$nk = \frac{(\text{Rasio} - 0\%) \times 1}{0,05}$$

After all the above values are obtained, then the calculation is carried out using the bank soundness level formula (CAMEL) with the following formula :

TABLE 9  
FORMULA CAMEL

No	No. Factors Assessed	Component Weight	Value
1	Capital	Capital Bank capital adequacy ratio 25%	25%
2	Asset Quality	Asset Quality Ratio of productive asset quality 30%	30%
3	Management	Management Net profit to operating profit ratio 25%	25%
4	Profitability	Profitability Operational efficiency ratio 5%	5%
5	Liquidity	Profit before tax ratio 5%	5%
	Amount	Liquidity Ratio in meeting short-term needs 10%	10%
	Capital		100%

TABLE 10  
BANK SOUNDNESS LEVEL WITH CAMEL METHOD

AMEL Credit Score	Predicate
81-100	Healthy
66-80	Healthy enough
51-65	Unwell
0-50	Not healthy

Source: banking management (kashmir, 2000)

### 3. Results and Discussion

The capital assessment aims to assess the bank's capital adequacy in securing position risk exposure and anticipating future exposures.

$$CAR = \frac{\text{Core + supplementary capital}}{ATMR}$$

$$nk = 1 + \frac{\text{rasio CAR}}{0,1\%} \times 1$$

TABLE 11  
CAR CALCULATION OF BNI SYARIAH BANK IN 2017-2020

Years	Core+Supplementary Capital	ATMR	Rasio CAR ( $\frac{\text{Core+supplementary capital}}{ATMR}$ )	NK ( $1 + \frac{\text{rasio CAR}}{0,1\%} \times 1$ )
2017	26.401.687	14.573.884	181%	1.811%
2018	26.401.687	14.886.169	177%	1.771%
2019	26.401.687	17.287.019	153%	1.531%
2020	26.322.238	44.388.141	59%	591%

Source: Processed Data, 2021

TABLE 12  
CAR . RATIO RATING RATING

Year	ratio	Rating	Predicat
2017	181%	Rating 1	Very Good
2018	177%	Rating 1	Very Good
2019	153%	Rating 1	Very Good
2020	59%	Rating 1	Very Good

Source: Processed Data, 2021

#### a. KAP (Product Asset Quality)

Asset quality assessment aims to measure the condition of productive assets in order to maintain asset quality and calculate allowance for asset losses due to credit risk which will affect the bank's capital ratio.

$$KAP = \frac{APYD}{AP} \times 100\%$$

$$nk = \frac{15,5\% - \text{rasio KAP}}{0,15\%}$$

TABLE 13  
CALCULATION OF KAP BANK BNI SYARIAH FOR 2017-2020

Year	APYD	AP	Rasio KAP ( $\frac{APYD}{AP} \times 100\%$ )	NK ( $\frac{15,5\% - \text{rasio KAP}}{0,15\%}$ )
2017	581.532	23.535.030	2,4%	87,3%
2018	804.552	28.040.831	2,8%	84,6%
2019	1.062.320	32.352.289	3,2%	82%
2020	1.295.552	32.883.389	3,9%	77,3%

Source: Processed Data, 2021

TABLE 14  
KAP RATIO RATING RATING

Year	ratio	Rating	Predicat
2017	2,4%	Rating 1	Very Good
2018	2,8%	Rating 1	Very Good
2019	3,2%	Rating 1	Very Good
2020	3,9%	Rating 1	Very Good

Source: Processed Data, 2021

b. NPM (Net Profit Margin)

Management becomes very meaningful because of the many risks posed by lending to customers. The success of the banking business depends on the adequacy of bank resources which are managed effectively and efficiently by banking management. For credit scores, this factor is the ratio of NPM equal to Credit Score.

$$NPM = \frac{\text{Net Profit}}{\text{Operating Profit}} \times 100\%$$

TABLE 15  
CALCULATION OF NPM FOR BNI SYARIAH BANK IN 2017-2020

Year Operating Profit	Net Profit	Operating Profit	Rasio NPM ( $\frac{\text{laba bersih}}{\text{laba usaha}} \times 100\%$ )
2017	13.045.845	16.191.287	80,6%
2018	14.462.168	18.480.235	78,2%
2019	14.162.864	18.229.893	80,1%
2020	2.775.195	4.364.094	63,1%

Source: Processed Data, 2021

TABLE 16.  
NPM RATIO RATING RATING

Year	Ratio	Rank	Predicate
2017	80,6%	Rating 3	Good enough
2018	78,2%	Rating 3	Good enough
2019	80,1%	Rating 3	Good enough
2020	63,1%	Rating 4	Not good

Source: Processed Data, 2021

c. REO (Operational Efficiency Ratio)

The operational efficiency ratio compares BPR's operating costs in the last 12 months with operating income in the same period

$$REO = \frac{BO}{PO} \times 100\%$$

$$nk = \frac{100\% - \text{rasio REO}}{0,08\%} \times 1$$

TABLE 17  
REO CALCULATION OF BNI SYARIAH BANK FOR 2017-2020

Tahun	BO	PO	Rasio REO ( $\frac{BO}{PO} \times 100\%$ )	NK ( $\frac{100\% - \text{rasio REO}}{0,08\%} \times 1$ )
2017	17.795.302	29.609.154	60,1%	498%
2018	18.834.317	32.583.893	57,8%	527%
2019	20.579.338	33.322.326	61,7%	770%
2020	20.806.232	33.892.503	61,3%	765%

Source: Processed Data, 2021

TABLE 18.  
REO RATIO RATING

Tahun	Rasio	Peringkat	Predikat
2017	60,1%	Peringkat 1	Sangat Baik

2018	57,8%	Peringkat 1	Sangat Baik
2019	61,7%	Peringkat 1	Sangat Baik
2020	61,3%	Peringkat 1	Sangat Baik

Source: Processed Data, 2021

d. ROA (Return On Assets)

ROA Is the ratio used to measure the ability of BPR in generating profit before tax to total assets owned.

$$ROA = \frac{EBT}{TA} 100\%$$

$$nk = \frac{rasio ROA}{0,015\%} \times 1$$

TABLE 19.

CALCULATION OF ROA OF BNI SYARIAH BANK IN 2017-2020

Tahun	EBT	AT	Rasio ROA ( $\frac{EBT}{AT} 100\%$ )	NK $\frac{rasio ROA}{0,015\%} \times 1$
2017	16.327.494	661.658.373	2,46%	164%
2018	19.041.926	754.575.210	2,52%	168%
2019	18.260.758	780.237.387	2,34%	156%
2020	4.350.684	818.227.668	5,31%	351%

Source: Processed Data, 2021

TABLE 20.

RATING RATING ROA

Year	Ratio	Rating	Predicat
2017	2,46%	Rating 1	Very Good
2018	2,52%	Rating 1	Very Good
2019	2,34%	Rating 1	Very Good
2020	5,31%	Rating 1	Very Good

Source: Processed Data, 2021

e. Cash Ratio (CR)

This ratio aims to measure the ability of bank payment instruments in the form of current assets to meet their short-term liquidity needs.

$$CR = \frac{Cash\&Setara\ kas}{Utang\ Lancar}$$

$$nk = \frac{(Rasio - 0\%) \times 1}{0,05}$$

TABLE 21.

CALCULATION OF CR BANK BNI SYARIAH FOR 2017-2020

Tahun	Cas&Setara Kas	Utang Lancar	Rasio CR ( $\frac{Cash\&Setara\ kas}{Utang\ Lancar}$ )	NK ( $\frac{(Rasio-0\%)\times 1}{0,05}$ )
2017	5.727.262	489.819	11,6%	232%
2018	5.158.495	789.714	6,5%	130%
2019	8.834.966	901.951	9,7%	194%
2020	7.785.232	1.046.937	7,4%	148%

Source: Processed Data, 2021

TABLE 22.

RATING CR RATIO

Year	Rasto	Rating	Predicat
2017	11,6%	Rating 1	Very Good
2018	6,5%	Rating 1	Very Good
2019	9,7%	Rating 1	Very Good
2020	7,4%	Rating 1	Very Good

Source: Processed Data, 2021

Credit Value Calculation

The credit value of each ratio factor has a maximum value of 100. If the credit value of each of the above formula calculations is more than 100, the credit value will be set at 100.

TABLE 23

CREDIT VALUE

Ratio	2017	2018	2019	2020



CAR	100	100	100	100
KAP	87,3	84,6	79,3	77,3
NPM	80,5	78,2	80,1	63,1
REO	100	100	100	100
ROA	100	100	100	100
CR	100	100	100	100

Source: Processed Data, 2021

#### 4. Conclusion

In the aspect of Capital, which is assessed by the CAR ratio, the CAR ratio in 2017 is 181%, in 2018 it is 177%, in 2019 it is 153%, in 2020 it is 59%. Then the average value of the CAR ratio is 142.5% and shows that the CAR ratio at BNI Syariah banks is within healthy limits. The results of the calculation of the KAP ratio used to assess Asset Quality in 2017 was 2.4%, in 2018 it was 2.8%, in 2019 it was 3.6%, in 2020 it was 3.4%. From the results of this ratio there is an average value of 3.1%, then the asset quality is categorized as Healthy. To assess the quality of Management, the NPM ratio is used. In 2017 the ratio value was 80.5%, in 2018 it was 78.2%, in 2019 it was 80.1%, in 2020 it was 63.1%, so the average value of this ratio is 75.55%. This shows that management performance is decreasing every year but is still classified as healthy. To assess the quality of Earning represented by the REO and ROA ratio, in 2017 the REO ratio value was 60.1%, in 2018 it was 57.8%, in 2019 it was 61.7%, in 2020 it was 61.3%, so the average value of the REO ratio is 60.2%, which means that the BNI Syariah bank is in a healthy condition. For the ROA ratio in 2017 of 2.46%, in 2018 of 2.52%, in 2019 of 2.34%, in 2020 of 5.31%, the average value of the ROA ratio is 3.15%, p. This statement states that the BNI Syariah bank is in a healthy condition. The last aspect of CAMEL is Liquidity which is represented by the CR ratio. In 2017 the value of the CR ratio was 11.6%, in 2018 it was 6.5%, in 2019 it was 9.7%, in 2020 it was 7.4%, so the average value of this ratio is 8.8%, which means it means that the BNI Syariah bank is in a healthy condition.

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