



A COMPARATIVE STUDY OF BANK SOUNDNESS METHODS TO CORPORATE VALUE (Commercial Banks Listed on Indonesia Stock Exchange For 2017-2018 Period)

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ABSTRACT

In this study, the author wants to compare the bank soundness methods, namely the CAMELS and RGEC methods, by using corporate value as the performance indicator. This study uses 10 variables consisting of CAR, EAQ, OCOI, ROE, LDR, BETA which are the ratios of the CAMELS method, NPL, IRR, NIM, ROA, namely the ratios of the RGEC method, and Tobin's Q ratio to calculate the corporate value.

The population of this study is all commercial banks listed on the Indonesia Stock Exchange (IDX) during the 2017-2018 period. The sample was selected by using a purposive sampling method. This study has a total sample of 45 companies. The analysis technique in this study uses multiple regression

The results of this study indicate that the OCOI and ROE ratios in the CAMELS method have a positive and significant effect on corporate value. In contrast, the NPL, IRR, and ROA ratios on the RGEC method also have a positive and significant effect on corporate value. From the results shown in this study, the author concludes that the RGEC method is more accurate and suitable for predicting the corporate value.

Keywords: CAMELS, RGEC, Corporate Value.

INTRODUCTION

The incident of monetary crisis that occur in Indonesia in the middle of 1997 serve as a lesson for banking industry, the crisis was disturbing banking financial intermediary activities that leads into tight competition especially in terms of community interest to save funds at the bank. Sound of the banking structure is the main target of banking industry in any country included Indonesia. With the sound of banking structure, we are expected to have stronger banking fundamental. That is why Bank Indonesia set a regulation to assess the soundness level of a bank by using CAMELS method. Based on the circular letter of Bank Indonesia number 6/23/DPNP/2004 the soundness level assessment of the commercial bank consists of capital, asset quality, management, earning, liquidity, and the sensitivity to market risk.

As the time goes by, Bank Indonesia set a new regulation that suitable used in Indonesia to assess the soundness level of a commercial bank by improving the assessment system through changing several aspects in CAMELS becomes risk profile, good corporate governance, earnings, and capital (RGEC). CAMELS method was established as a standard for international banking assessment. In 1979 CAMEL method has been created in the USA by bank regulatory agencies to assess financial institutions' soundness. In 1996 bank regulatory agencies desire to focus on risk and sensitivity to market risk aspects and become CAMELS (Roman & Sargu, 2013). However, in Indonesia, the CAMELS method may not be suitable for assessing the banking sector's soundness level. It might be because Indonesia is a developing country, and there is a growing interest in the risk-based approach. Hence the Bank Indonesia decided to set RGEC as the new regulation

Banks are required to have a good performance in managing their funds so that banks can carry out their functions properly. This relates to the bank's soundness, where bank health is used as a benchmark for management to determine bank guidance and development. Aside from that, it also a benchmark for bank management to assess whether bank management is in line with the principle of Prudential Banking. Prudential banking is a principle that states that banks are required to be prudent when carrying out their business functions and activities in order to protect public funds that have been entrusted to the bank (Usman, 2001).

In transaction activities with its customer, the bank always looks carefully at the aspect of trust. Without the public trust towards the bank and instead of the bank's trust in the community, the bank cannot be function properly. Thus, the thing that plays an important role in realizing public trust in the banking industry is the soundness of banks or bank's health level (Ratulandang, Rogahang, & Keles, 2018). Bank soundness also can be used to make perception. It is usually seen from the investor perception of the firm that is commonly related to the stock. It is called a corporate value, measured by Tobin's Q ratio (Pradini, Herwany, & Tanzil, 2015). Bank as intermediary holds an important role to collect and redistribute the money from customers, and it is very important to know the value of corporation to maintain attract the investors and maintain public trust. Based on Ulupui (2017) stated that the greater financial performance that is proxied by financial ratio, it means the greater amount of corporate value. Tobin's Q ratio has been widely used to measure the corporate value as it has been done by several researchers such as Jose, Nichols, and Stevens (1986), Malkiel, von Furstenberg, and Watson (1979), and Servaes (1990) to analyze investment, diversification, and the relationship between managerial ownership and firm value.

With the changing of the bank soundness method in Indonesia, then there is an improved assessment of the soundness level of the bank. Bank soundness needs to be known as a benchmark of the successfulness of the bank's performance in a period. According to the research from Pradini, Herwany, and Tanzil (2015) stated that bank soundness is reliable to generate a perception from the investor, or it can be called as a corporate value. Every bank has to have an excellent corporate value to attract the investor, one of which is by improving their soundness level. Therefore, this research aims to find out which method is most suitable for assessing the corporate value, because the banking industry has experienced a crisis caused by the bank's unawareness towards problems, such as non-performing loan, solvency ratio, debt ratio, and many more that lead the decreasing on corporate value.

THEORETICAL FRAMEWORK AND HYPOTHESES DEVELOPMENT

A value is a continuing belief that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence (Rokeach, 1973). In addition, Hofstede (1998) defines value as a broad tendency to select certain states of affairs over other. In a corporate perspective, there has been some definitions stated by prior researchers. According to Agle and Caldwell (1999) corporate value is a way of expressing the operation of the company. This study follows theory of the firm explained by Jensen and Meckling (1976) that firm is a black box operated, to meet the proper marginal conditions considering input and output, maximizing profit, and precisely the present value. It means that company must operate as efficient as possible to maximize their profit, therefore, the present value will be increasing.

Capital is very important to carry out bank business activities. Without capital banks will find difficulty in funding, so they will try to find additional funding from debt Bank that hold huge capital they tend to survive because they can more easily control potential losses. Bank that relatively have high level of capital could fail if they cannot manage the other components of its balance sheet properly, so banks have to ensure that each component must have a good record and performance. Bank Indonesia has set a rating for capital adequacy by using CAR (Capital Adequacy Ratio), the higher value of the CAR means that the better performance of a bank. Hence, the author proposes the following hypothesis:

H1: Capital Adequacy Ratio has a positive influence to the corporate value.

In the characteristic of asset quality is an assessment of the types of assets owned by banks. Based on the Bank Indonesia regulation number 14/15/PBI/2012 regarding quality assessment of commercial bank assets, there are two kinds of asset, first is earning asset and non-earning asset. Based on the Bank

Indonesia Regulation number 6/10/PBI/2004 stated that the lower value of EAQ ratio means that bank can reinstate the funds invested in productive asset properly or the better performance of a bank. Hence, the author proposes the following hypothesis:

H2: Earning Asset Quality has a negative influence to the corporate value.

This ratio is also referred as the efficiency ratio, used to measure the ability of bank management in controlling operating costs to operating revenues. The smaller amount of this ratio means the more efficient operational costs incurred by the bank concerned, so the possibility of a bank in a problematic condition is smaller. Operating costs are calculated based on the sum of total interest costs and total other operating expenses. Operating revenues is the sum of total interest revenue and total other operating revenue. Hence, the author proposes the following hypothesis:

H3: Operating Cost on Operating Income has a negative influence to the corporate value.

Return on Equity (ROE) is a comparison between net income and equity. This ratio is commonly used by shareholders and investors in the stock market who wants to buy the stock. That is why this ratio is significantly important for shareholders and investors to measure how banks generate profits which related to dividend payment. The higher value of this ratio means the better performance of a bank and the more efficient the firm uses their shareholders' equity. Hence, the author proposes the following hypothesis:

H4: Return on Equity has a positive influence to the corporate value.

Several banks generally obtain funds from outside sources, regulators would prefer that banks not fully rely on these sources (Madura, 2018). Liquidity can indicate the availability of funds and sources of bank funds at this time and in the future. The existence of rules on bank liquidity is aimed at making the bank meet all obligations that must be fulfilled and paid at any time. In this liquidity characteristic the assessment is based on the bank's ability to repay all of its debts as well as being able to fulfill all credit applications that are eligible for approval. The lower value of loan to deposit ratio means that the better performance of a bank. Hence, the author proposes the following hypothesis:

H5: Loan to Deposit Ratio has a negative influence to the corporate value.

A stocks BETA analyzes the sensitivity of its return to market return. This measurement mostly used by the investors who have a diversification on their stock portfolio and they believe that unsystematic risk of the portfolio is diversified away (Madura, 2018). The higher BETA stock means that the stock is more volatile than their market overall. Hence, the author proposes the following hypothesis:

H6: BETA has a positive influence to the corporate value.

Credit risk is indicated by the amount of Non-Performing Loan (NPL). Non-performing loan is a percentage of the number of impaired credits to the total credit extended by banks. The lower value of this ratio, the lower possibility that banks will suffer losses because profits will increase. Hence, the author proposes the following hypothesis:

H7: Non-Performing Loan has a negative influence to the corporate value.

Interest rate risk is a risk that occurs from the difference from the interest rates in the market that may negatively affect the company. IRR is categorized as one of the market risks. This ratio shows the interest revenue to the interest paid. Based on the circular letter of Bank Indonesia No.13/24/DPNP/2011 stated that the greater amount of this ratio means the lower the loss for the bank. Hence, the author proposes the following hypothesis:

H8: Interest Rate Risk has a positive influence to the corporate value.

Net interest margin is ratio used to measure the management performance of bank to deliver credit, since the operational revenue of a bank relies on the difference between the interest rate of credit with the interest rate of savings (interest income). Net interest margin is a comparison between net interest income to the average of productive asset and it is defining the condition of good corporate governance (Pradini, Herwany, & Tanzil, 2015). The higher value of this ratio means the bigger income for the bank. Hence, the author proposes the following hypothesis:

H9: Net Interest Margin has a positive influence to the corporate value.

Return on Assets is used to measure the ability of bank management to obtain overall profit (Weygandt, Kimmel, & Kieso, 2015). To calculate this ratio by dividing net income or after-tax earnings with average total assets, Return on Assets (ROA) is a profitability ratio commonly used to evaluate banks (Madura, 2018). The higher value of this ratio means the higher profit and performance of a bank. Hence, the author proposes the following hypothesis:

H10: Return on Assets has a positive influence to the corporate value.

METHODOLOGY

To test the hypothesis, this study uses the component of the soundness assessment methods as the independent variable. The first method is CAMELS and used six components, those are CAR, EAQ, OCOI, ROE, LDR, BETA), and the second method is RGEC and consist of four components, those are NPL, IRR, NIM, ROA. Dependent variable is a main interest variable for the author, because the objectives of the author in conducted their study is to describe, understand, and predict the dependent variable (Sekaran & Bougie, 2016). In this study the dependent variable used is corporate value measured by Tobin's Q ratio.

Population used in this study is all the commercial banks listed on Indonesia Stock Exchange during 2017-2018 period. The sampling technique was taken by purposive sampling technique, that is the selection of samples based on certain criteria and have sufficient information desired by researchers to carry out research (Sekaran & Bougie, 2016). The criteria used in this study include:

1. Commercial banks listed on Indonesia Stock Exchange during 2017-2018 period
2. Commercial banks who have published their audited financial and annual report in 2017-2018 period
3. Commercial banks that have all the data needed for this study

The data used in this study is secondary data obtained from several sources that publish the data needed. The sources used to obtain data for the variable necessary are through Indonesia Stock Exchange (IDX) website www.idx.co.id and collaboratively with Bloomberg Data Terminal.

For testing the hypothesis, the author using multiple linear regression analysis. Multiple linear regression analysis is used to examine the relationship between independent and dependent variables (Ghozali, 2018). This study has two models consist of the equation for CAMELS and RGEC methods to Tobin's Q as the dependent variable. The models are:

$$1. \quad TQ = \alpha + \beta_1 CAR + \beta_2 EAQ + \beta_3 OCOI + \beta_4 ROE + \beta_5 LDR + \beta_6 BETA + \varepsilon$$

$$2. \quad TQ = \alpha + \beta_1 NPL + \beta_2 IRR + \beta_3 NIM + \beta_4 ROA + \varepsilon$$

RESULT AND DISCUSSION

The total commercial banking sample used for this study in 2017-2018 period are 45. The samples selected through purposive sampling method.

Table 1
Sampling Selection

Firm Sample	Amount
Commercial banking sector listed in IDX 2017-2018 period (43 banks x 2)	86
Financial sector companies listed in IDX 2017-2018 period that didn't meet criteria	(32)
Outlier	(9)
Total commercial banking sample for 2017-2018	45

Source: Author, 2020.

Table 2
Individual Parameter Significance Test in Regression Model 1 (CAMELS)

Variable	Unstandardized	Std.erorr	t-values	t-sig
Constant	0.967	0.122	7.929	0.000
CAR	-0.255	0.175	-1.459	0.153
EAQ	-0.398	0.658	-0.605	0.549
OCOI	0.233	0.093	2.496	0.017
ROE	1.276	0.409	3.119	0.003
LDR	-0.039	0.106	-0.369	0.715
BETA	0.0003	0.002	0.154	0.878
Adj. R^2	0.169			
F-value	2.492			
F-sig	0.039			
N	45			

Source: Author, 2020.

The result table above is the first regression model for CAMELS method, the result used to determine whether the hypothesis is accepted or not. If we look back at the hypothesis development in chapter two, the first hypothesis is the positive influence of CAR to the corporate value. The table results show that CAR has a negative influence to the corporate value with -0.255 B coefficient, and insignificant influence the corporate value, by 0.153 significance value. Although the result shows a different direction of the hypothesis, according to the research conducted by Shingjergju & Hyseni (2015) found that there is no relationship between CAR and profitability. This means that CAR has a negative influence to corporate value, because the investors will not concern at the CAR ratio to determine the corporate value. Hence, the hypothesis is rejected.

The second hypothesis is EAQ has a negative influence to the corporate value. From the result table it shows a negative and insignificant influence to the corporate value or Tobin's Q ratio. The B coefficient is -0.398 and the significant value is 0.549. The EAQ has a negative relationship to the corporate value but it insignificant. It means that the second hypothesis is rejected.

The third hypothesis predict that OCOI has a negative influence to the corporate value. From the table above, there is 0.233 B coefficient on OCOI variable, it indicates that OCOI has a positive influence to corporate value and the influence is significant, with 0.017 significance value. Hence, the hypothesis is accepted. The increase in operating expenses could be caused by a fairly expansive activities by banks, particularly in developing distribution networks. With an increase in business and bank development, this can attract investors, thus, the corporate's value increases (Pradini, Herwany , & Tanzil, 2015). That is why the result shows a positive influence to the corporate value.

The fourth hypothesis is ROE has a positive influence to the corporate value. As shown on the table above the B coefficient of ROE is 1.276, it means that ROE positively influencing the corporate value with 0.003 significance value. Thus, the hypothesis is accepted.

The fifth hypothesis predict that LDR negatively influence the corporate value. It can be seen from the result table that the B coefficient of LDR is -0.039, it indicates loan to deposit ratio (LDR) is negatively influence the corporate value. The significant value is 0.715. Thus, the hypothesis is rejected.

The sixth hypothesis is BETA has positive influence to the corporate value. Based on the table BETA positively influence the corporate value with the B coefficient value is 0.0003, and BETA insignificant to the corporate value, because it shows 0.878 significance value. Hence, the hypothesis is rejected.

Table 3
Individual Parameter Significance Test in Regression Model 2 (RGEC)

Variable	Unstandardized	Std.erorr	t-values	t-sig
Constant	0.953	0.108	8.815	0.000
NPL	2.626	1.189	2.208	0.033
IRR	0.208	0.088	2.351	0.024
LDR	-0.187	0.112	-1.665	0.104
NIM	1.125	1.009	1.116	0.272
ROA	5.386	1.666	3.233	0.003
CAR	-0.303	0.181	-1.674	0.102
Adj. R^2	0.250			
F-value	3.451			
F-sig	0.008			
N	45			

Source: Author, 2020.

The seventh hypothesis is NPL has a negative influence to the corporate value. The table indicates that there is a positive relationship between NPL and the corporate value, with 2.626 B coefficient and 0.033 significance value. Thus, the hypothesis is accepted because the p value is less than 0.05. The positive influence to the corporate value it might be cause by the higher amount of NPL ratio will cause the perception of investors to invest their money to the bank, that is why the result shows a positive direction.

The eighth hypothesis is IRR has a positive influence to the corporate value. Based on the table, it can be seen that IRR positively influence corporate value, with 0.208 B coefficient and 0.024 significance value. Hence, the hypothesis accepted.

The ninth hypothesis is NIM has a positive influence to the corporate value. The result table shows that the relationship between NIM and corporate value is positive with 1.125 B coefficient, and the influence of NIM to the corporate value is insignificant, with 0.272 significance value. Thus, the hypothesis is rejected.

The tenth hypothesis predict that ROA has a positive influence to the corporate value. As shown on the table above, there is 5.386 B coefficient on ROA variable, it indicates return on assets positively influence the corporate value and the influence is significant, with 0.003 significance value. This means that the hypothesis is accepted.

According to the result explanation above, it can be concluded that the significance value of the RGEC ratios is more than CAMELS. If we take a look at the result of the adjusted R^2 it shows that Tobin's Q ratio explained by the RGEC ratios for 25%, this value is more than CAMELS method that only explained 16.9%, while the rest is explained by other variable out of this regression model. This emphasize that ratios use in RGEC method is more accurate, suitable and significant in predicting the corporate value. In line with the Permana (2012) stated that the RGEC method set by Bank Indonesia implements a better good corporate governance and risk management than the previous method. Therefore, banks are better prepared to face crises. The improvement of the soundness level assessment for a bank aims to be more effectively used in assessing bank performance. By using corporate value to compare the soundness methods of a bank, it can prove that the newest method or RGEC is much more suitable use in Indonesia, one of them is proven that the RGEC ratios is more significant and accurate in predicting corporate value.

CONCLUSION

This study is focusing on the comparison between bank soundness methods (CAMELS and RGEC) to corporate value. The corporate value is investor's perception and it is measured by using Tobin's Q ratio. Each ratios of the bank soundness methods will be proven whether it has a significant relationship in predicting the corporate value or not. From the result of each ratios, it can prove which method has a lot of significant results in predicting corporate value. This study uses of banking companies listed on Indonesia Stock Exchange (IDX) during 2017-2018 as a sample, with a total sample is 45. To determine the sample the author used a purposive sampling method that select the sample based on the criteria needed.

The first regression model that using CAMELS' ratios show that only two ratios that have a significant value. Those ratios are OCOI and ROE and it means that those ratios are influence the corporate value. The result of the adjusted R^2 for CAMELS ratios is 16.9%, it means that Tobin's Q explained by the CAMELS ratios only 16.9% and the remaining is explained by other variable out of this regression model. The second regression model that using the ratios of RGEC method shows that three ratios have a significant value. Those ratios are NPL, IRR, and ROA, it means that those ratios are influence the corporate value. The result of the adjusted R^2 for RGEC ratios is 25%, it means that Tobin's Q explained by the RGEC ratios only 25% and the remaining is explained by other variable out of this regression model. From the result regarding the relation between each ratios of CAMELS and RGEC methods, the author concluded that RGEC method is much more accurate in predicting corporate value, by looking at the ratios that significantly influence in predicting corporate value. RGEC has three significant ratios in predicting corporate value, while CAMELS only show two significant ratios.

As a consideration for the readers, this study has several limitations. First, the journal availability in several platform especially for the comparison between CAMELS and RGEC methods is limited. Second, this research has limitations on the low adjusted R^2 score. The first model has 16.9% adjusted R^2 . It means that CAMELS method ratios only explain 16.9% of Tobin's Q ratio that used to measure the corporate value. The other 83.1% is explained by other variables out of this model. The second model has 25% adjusted R^2 . This means that RGEC method ratios only explain 25% of Tobin's Q ratio. The other 75% is explained by another variable out of this model. This result implies that the adjusted R^2 is still not fully explaining the dependent variable.



Based on the limitations above, the author proposes several suggestions for further research that have the same topic. First, the author expects there will be a lot of further research related to this topic, so the reference for this topic is much more than the prior research. Second, as previously explained that the adjusted is still not maximum. Therefore, a variable expansion or replacement is required for further researcher.

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