The Influence of Financial Ratio Analysis to Predict Banking Companies Profit

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ABSTRACT

Financial Statement aim to give the information to be used by users for decision making process. This decision making process must be predictive value, objective and relevant. To assist the decision making process can use the ratio analysis. In assessing performance and health of banking companies, generally used five assessment aspect that is Capital, Asset, Management, Earnings, and Liquidity called as CAMEL. Four from five that assessment aspect that is capital, assets, earnings, and liquidity assessed by finance ratio. Financial ratio are useful in assessing condition of company's finance banking. Assets management at banking companies instructed to productive asset management (earning assets). Quality of bank Assets, measurable by using asset ratio related to liquidity, rentability and solvability. From assets ratio we can knowing the information like the ability of banking company management in obtaining profit and the ability to fulfill credit in managing on asset owned. Sample Data were taken from banking companies which listed in Indonesia Stock Exchange, where issued the financial statement up to year 2006. The measure of this financial statements based on regression analysis, correlation coefficient and determination coefficient to test the influence of asset ratio by significant to banking companies profit.

Sample on calculating the data and analysis, obtain the result that asset ratio is very significant to predict the banking companies profit. The forecasting model that used financial ratio to predict the profit of banking companies will give the best of prediction result. The conclusion is if the information are more and complete will give the best of prediction result.

Keywords : Financial Ratio, Banking Companies profit.

1. Introduction

The research about the influence of financial ratio to predict banking companies profit is urgently needed. The importance of this research based by several reasons. First, it is still a lack of research about the influence of financial ratio to predict banking companies profit. Second, the number of unhealthy competition among banks conducted which resulted in reduced bank profits because of high interest rates given by different banks. Thirdly, the banking company's financial ratios with a few different types of financial ratios of other companies.

To assess the performance of the banking companies, commonly used five aspects assessment of that is Capital, Assets, Management, Earnings, and Liquidity commonly called CAMEL. Bank soundness is basically assessed with a qualitative approach on the various aspects that influence the condition and development of a bank. A qualitative approach was conducted by evaluating factors such as capital, assets quality, management of earnings, and liquidity, so that will generate profits that will achieve a banking companies. Asset quality is measured by assets ratio, which is concerned with the survival of the bank. Four of these five aspects of each capital, assets, earnings, and liquidity assessed using financial ratios. This suggests that financial ratios are useful in assessing the company's financial condition.

2. Literature and Empirical Evidence on Financial Ratio Analysis

Warren, Reeve, dan Fees (2001; 16) explains that: After transactions have been recorded and summarized, reports are prepared for users. The accounting reports that provide this information are called financial statements. The financial statements is the primary means of communicating financial information provided by the financial reporting process.
Harahap (2004; 189-190) explained that the analysis of the financial statements are outlining the financial statements of the posts into smaller units of information and see relationships that are significant or that have a meaning different from each other between the quantitative data as well as non-quantitative data in order to find out more in financial conditions are very important in the process make the right decision.

Dendiwijaya (2005; 114-122) has summarized the banking financial ratios as follows: liquidity ratio analysis, rentability ratio analysis and solvability ratio analysis.

Helfert (1991), to understand the financial ratio analysis as an instrument of corporate achievement that describe the various relationships and financial indicators, which are used to indicate a change in financial condition or operating performance in the past and helps illustrate the trend pattern of these changes, then it shows the inherent risks and opportunities the company concerned. This indicates that the financial ratio analysis, although based on past data and conditions but are intended to assess the risks and opportunities in the future.

Zainuddin and Hartono (1999) uses regression analysis to analyze financial ratios partially and Analysis of Moment Structures (AMOS) simultaneously, this study shows that partial financial ratios are not significant in predicting changes in earnings. However, partial financial ratios Capital, Assets, Earnings, and Liquidity significant in predicting changes in earnings.

Based on several studies proved that CAMEL financial ratio can be used to assess the financial condition of banks. So with this research is expected, users of financial statements, particularly investors can make more accurate decisions.

3. Analytical Framework and Research Methodology
3.1 Determinant of sample
Determination of the sample in this study using a multiple stage sampling method. In general, the criteria used by researchers to select samples are as follows:
1. Registered as a member of the Indonesia Stock Exchange.
2. Moving in the same industry.
3. Provide periodic financial reports to the Indonesia Stock Exchange and issued financial statements until the year 2006.

3.2 Variable Operationalization
Variables in this study consisted of the independent variables and dependent variables, namely:
a. Independent variable (X) consisted of:
   1. Ratio of Assets 1
      Represents the ratio of loans to total assets.
   2. Ratio of Assets 2
      Represents the ratio of cash plus demand deposits at Bank Indonesia and other banks plus securities to total assets.
   3. Ratio of Assets 3
      Represents the ratio of cash plus demand deposits at Bank Indonesia and other banks plus securities plus placements with other banks to total assets.
   4. Ratio of Assets 4
      Represents the ratio of earning assets to total assets, which assets consist of current accounts at other banks, placements with Bank Indonesia and other banks, the effects or securities, the bonds, loans, bill acceptances, derivative, bills receivable, the investments in shares and commitments and contingencies that have credit risk.
b. Dependent variable (Y) that is the profit of the banking company.

3.3. Data source
Data obtained from financial statements 2004 to 2006, where 24 bank selection is based on banks that issue financial statements until the year 2006 as a public company listed on the Indonesia Stock Exchange. The consolidated financial years 2004 and 2005 are used to calculate the growth of financial ratios, while the financial statements for 2005 and 2006 are used to calculate the profit growth.
3.4. Analysis Tools

Regression

In accordance with the forecasting model used, the form of regression equations that will be used in this study are as follows: 

\[ \hat{Y} = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 \]

Description:

\( \hat{Y} \) = Profit

\( a \) = constant

\( b_1, b_2, b_3, b_4 \) = Coefficient of regression for each variable

\( X_1 \) = Ratio of Assets 1

\( X_2 \) = Ratio of Assets 2

\( X_3 \) = Ratio of Assets 3

\( X_4 \) = Ratio of Assets 4

Correlation

To measure relationship strength, the correlation coefficient values are -1 and +1. To shape or direction of the relationship, the correlation coefficient is expressed in positive (+) and negative (-), or \((-1 \leq r \leq +1)\).

a. If the correlation coefficient is positive, then the variables are positively correlated, meaning that if one variable increases or decreases, the other variable also increase or decrease. If the correlation coefficient closed to +1, the positive correlation is strong.

b. If the correlation coefficient is negative, then the variables are negatively correlated, meaning that if one variable increases or decreases, the other variable also increase or decrease. If the correlation coefficient closed to -1, the negative correlation is strong.

c. If the correlation coefficient value of 0 (zero), the variables showed no correlation.

d. If the correlation coefficient value of +1 or -1, the variables indicate positive or negative correlation is perfect.

Coefficient Determination

Another way is to measure the usefulness of regression models to calculate how big the contribution of \( X \) (independent variables) in predicting \( Y \) (dependent variable), this method is also called the coefficient of determination.

Equation:

The coefficient of determination \( (D) = r^2 \)

The coefficient of determination ranged from: \(-1 \leq r^2 \leq 1\)

Results of coefficient determination expressed as a percent. The coefficient of determination means the variation of one variable caused by changes in other variables, or how strong the influence of \( X \) (independent variable) on \( Y \) (dependent variable). The value of \( a \) is known by looking at the ANOVA table.

4. Empirical Results

4.1 Regression

Based on the table 1. data processing, the value of the constant \( (a) \) for the fourth regression equation is -0.865, while the slope value of the variable \( X_1 \) \( (b_1) \) is -0.277, the slope value of the variable \( X_2 \) \( (b_2) \) is 3.294, the slope value of the variable \( X_3 \) \( (b_3) \) was 14.862, the value of the variable slope \( X_4 \) \( (b_4) \) is -18.375, the data obtained by the fifth regression equations as follows:

\[ \hat{Y} = -0.865 + 0.277X_1 + 3.294X_2 + 14.862X_3 - 18.375X_4 \]
4.2 Correlation
In general, the results of the correlation between ratios of assets to the profit that is worth 0.965. This means that every increase of one unit of the fourth growth of financial assets ratio, would lead to increased profit of 0.965.

4.3 Coefficient Determination
adjusted R square value amounted to 0.659. Its mean income growth is explained by changes in growth assets ratio amounted to 65.9 percent and the rest explained by other variables.

4.4. Hypothesis Testing
initial hypothesis and alternative hypothesis are as follows:
Ho: Variables in the regression equation did not significantly affect the profit of banking companies.
H1: The variables in the regression equation significantly affect the profit of banking companies.

significant value for the regression equation amounts to 0.383. Since the number 0.383 is greater than 0.05, then Ho is accepted, it means that all variables are not significant at $\alpha = 0.05$, but significant at $\alpha = 0.383$. To find the form of an equation that gives the best prediction results, it can be seen from the adjusted R square value of each form forecasting models. For the fourth regression equation adjusted R square value is 0.659.

5. Conclusions
After doing the calculations and analysis of financial assets to income ratio, then from this research can be concluded as follows:

1. The results on the 24 banks, stating that the financial assets ratio is only able to predict the profit amounted to 7.7%, while the analysis by removing the values that are not fair or so-called extreme value so that only the remaining six banks which have the same ability, whether it comes from in terms of income or assets ratio can give a great influence and outcome better prediction of about 65.9% of income is determined by the ratio of assets, the balance of 34.1% determined by other factors, such as inflation, interest rates, capital factors, management, earnings, liquidity, and others.

2. Financial ratio analysis did not significantly affect the profit of banking companies.

3. Forecasting model that uses more variables will impact and better prediction results. This can be proved by looking at the adjusted R square value of each forecasting model, the more variables used, the greater the value of its adjusted R square, which means that the greater the value of adjusted R square, the greater the influence of the ratio of banking assets in predicting profit.

Suggestion
To get the results predicted better earnings, should be used as possible models for forecasting financial ratios. This is recommended because of the research results can be seen that the forecasting model that uses more and more financial variables in the equation, adjusted R square value is greater. This means that as more and complete information is included in the forecasting model, will give better prediction results.
The more samples in generating income and productive assets will be better, the prediction result will be searched.

References


[12] Site of Indonesia Stock Exchange: www.jsx.co.id