Comparative Analysis of Financial Ratios and Economic Value Added Methods in Assessing Company Financial Performance

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Abstract: This study aims to compare between financial ratios and methods of economic value added (EVA) as a measure of a company’s performance. The data used in this study are quantitative data with data collection techniques through documentation and this research is comparative in nature. The object of this research is PT. Garuda Indonesia, Tbk, which was listed on the Indonesia Stock Exchange for the period 2013-2017. The results of the study explained that the results of the financial performance of PT. Garuda Indonesia Tbk during the 2013-2017 period measured by the overall financial ratio can be said to be quite good, although there are still some fluctuating ratios. Whereas financial performance is assessed using the Economic Value Added (EVA) method which results in a negative result (EVA <0), which means that the company is unable to produce added value for shareholders. The results of the comparison of the two methods explain that there are differences caused by capital costs that are not taken into account in the analysis of financial ratios.

Keywords: financial ratios, economic value added, financial performance

I. INTRODUCTION

At present in Indonesia the national transportation sector especially air services are faced with a situation of very tight competition. It is shown by the presence of various airlines including one of the oldest airlines, Garuda Indonesia, which is approximately 60% owned by the government. With a large capital investment, the government certainly expects a high rate of return. As President Director of PT. Garuda Indonesia revealed that at the end of 2017 the airline with the red template posted a loss of US $ 213.4 million and was inversely proportional to 2016 which recorded a net profit of US $ 96 million [1]. He revealed that Garuda losses caused by several things namely the swelling of total expenditure which rose 13% from US $ 3.7 billion to US $ 4.25 billion. The largest increase in fuel costs rose 25% from US $ 924 million to US $ 1.15 billion.

One way to assess the company's financial performance can be seen through the financial statements that have been issued as a form of accountability for a certain period. Financial statements are information tools needed by various parties both internal and external to the company. Measurement of financial performance can be done using financial ratio analysis. This financial ratio analysis is useful to find out how much the level of efficiency of the company in its use of assets and can measure the level of profits derived by the company.

Using this analysis tool is easy, but this analysis cannot be used as a single measure because sometimes it is not able to describe the actual business results and can lead to wrong decision making. To avoid this, in addition to using financial ratio analysis, it is necessary to use another measurement tool to assess the company's financial performance, the Economic Value Added Method. This method is a measure of financial performance with efforts to create more realistic company value, because of EVA taking into account the expectations of shareholders not based on historical book values. This makes EVA used as a measurement tool which is suitable for investors in choosing promising financial investments. This concept is based on the assumption that welfare can only be created if the company is able to meet all operating costs and capital costs. In this research the object of research is the company on the IDX, PT. Garuda Indonesia Tbk, known as the market leader in its field. In order to achieve the expected level of progress, PT. Garuda Indonesia Tbk requires evaluating performance whether it has reflected the effectiveness and efficiency of the company. So the results of this study can be used as consideration in making decisions in order to encourage the company's financial performance to be better in the future. Based on the description of the problem above, the researcher will take a thesis theme titled "Comparative Analysis between Financial Ratios and Economic Value Added (EVA) Methods in Assessing Corporate Financial Performance (Case study at PT. Garuda Indonesia, Tbk registered on the Indonesia Stock Exchange in the period 2013 - 2017) ". This study aims to determine how the financial performance of PT. Garuda Indonesia, Tbk in the period 2013-2017 based on financial ratio analysis and to describe the financial performance of PT. Garuda Indonesia, Tbk for the period 2013-2017 was measured using the Economic Value Added method. And to find out the comparison. Between the application of the financial ratio analysis method and the Economic Value Added method as a measure to assess the
financial performance of PT. Garuda Indonesia, Tbk for the period 2013-2017.

II. THEORETICAL FRAMEWORK

A. Review Previous Research Results

The results of research conducted based on the results of the analysis using Financial Ratios showed that the financial performance of PT. Astra Otoparts Tbk is better than PT. Rogue elephant [2]. But on the contrary based on the results of the analysis by the Economic Value Added method of PT. Gajah Tunggal Tbk shows positive EVA value which means that PT. Gajah Tunggal is able to create economic added value and it needs to be maintained so that the company's value remains stable with the existing economic conditions. Based on the different tests that have been done, it was only obtained that there were differences in the two methods of the analysis. However, both of these methods can be used as a result for a few months before economical analysis. So that bypassing the EVA method is expected to be able to meet the expectations of investors who have just had a return to investment that has been profitable for the investment. Lengthening the large number of people that should be spent to finance these investment activities.

Suggested the research calculated using financial ratios and EVA methods showed positive results during the years 2009-2011 which means that the company's management has succeeded in creating value and prosperity for shareholders as the owner of the company, because the returns given are as expected. The result of comparison between ROE and EVA shows that companies must apply EVA as a measure of company performance compared to ROE, because EVA takes into account the cost of equity whereas ROE does not [3].

Stated the results of the study explained that the results of the company's financial performance measured by the analysis of the financial ratios as a whole can be said to be quite good, although there are still some fluctuating ratios [4]. While the results of the EVA method obtained positive results (EVA > 0) and increasing every year, which means that the company has succeeded in creating economic added value. The results of the comparison of the two methods explain that there are differences caused by the neglect of capital costs in the analysis of financial ratios, however the EVA method that takes into account the expectations of shareholders, can be used to supports financial ratio analysis because both of them show good results, and have the same concept.

B. Theoretical Basis

1) Financial statements: "Financial statements are a structured presentation of the financial position and financial performance of an entity" [5]. This report presents the history of entities that are quantified in monetary value. Financial statements can be used for special or general purposes. General purpose financial statements are prepared based on accounting standards and data information that has occurred so that the data is more oriented to historical data. The preparation of this report is addressed to the company's external parties and is used to meet the common needs of all users of financial statements. In addition to general purposes, this report is also prepared for specific purposes, for example financial statements for other regulators such as Bank Indonesia (specifically banking companies) and taxation and for management purposes.

2) The purpose of financial statements: The purpose of the presentation of financial statements is to provide in formation regarding the financial position, performance, and changes in the financial position of a company that is beneficial to a large number of users in making economic decisions past history. And financial reports that show what management has done (stewardship) or management's responsibility for the resources empowered to him [5].

3) Financial statement analysis: Financial statement analysis is a thoughtful process in order to help evaluate the company's financial position and operating results in the present and past, with the aim of determining the most likely estimates and predictions regarding the company's condition and performance in the future. The purpose of financial analysis is to use past performance to predict the profitability and cash flow of a company in the future as well as to evaluate the performance of a particular period of the company with the intention of identifying existing problems [6]. In carrying out financial statement analysis in general, there are two methods of analysis, namely vertical and horizontal analysis.

4) Financial ratio analysis: Financial ratio analysis is a tool that can help in assessing past management's achievements and future prospects [4]. By analyzing financial achievements, a financial analyst can plan and implement into every action consistently with the aim of maximizing the prosperity of the company.

5) Types of financial ratios: There are 4 types of ratios used to assess the company's financial performance as follows [7]:

   - Liquidity ratio (liquidity ratio), which is the ratio that shows the relationship between company cash and other current assets with current debt.
   - Activity ratio, also known as efficiency ratio, which is a ratio that measures the efficiency of a company in using its assets.
   - Financial Leverage Ratio, which is a ratio that measures how much a company uses funds from debt (loans).
   - Profitability ratios, which are ratios that indicate a company's ability to benefit from the use of its capital.

6) Economic Value Added method: EVA is one measure of operational performance that was first developed by G. Bennet Stewart and Joel M. Stren, a financial analyst from the company Sten Stewart and Co. in 1993 [8]. In Indonesia the EVA method is known as the NITAMI (Value Added Economy) method. This method is a tool that provides new input to the measurement of a company's performance to create an added value, where EVA does not neglect the element of using capital costs as contained in other accounting tools.
Economic Value Added is a measure of a company's financial performance that emphasizes the interests of investors and creditors with a value creation strategy that is calculated without ignoring the element of capital costs in measuring the economic profit of a company. EVA is an indicator of the added value of an investment. Positive EVA (EVA > 0) indicates that the rate of return generated exceeds the level of capital costs or the rate of return to investors for investments made; this event indicates that the company is able to create value for the owners of capital. Conversely, a negative EVA (EVA <0) indicates that the rate of return requested by investors is higher than the rate of return obtained by the company which causes the value of the company to decrease, while EVA which is equal to zero (EVA = 0) indicates that the company is in a break-even condition. This means that the rate of return obtained is the same as the rate of return demanded by the investor.

7) **Definition of financial performance**: Performance in the dictionary of accounting terms is a quantification of effectiveness in operating a business for a certain period. Performance is a comparison between expectations and achievements obtained by a person or organization after carrying out an activity [6]. In the company's operational activities carried out very diverse. Therefore, it is necessary to evaluate whether the activity or activity has been going according to what an agency or company wants to achieve. Financial performance appraisal is one of the ways that management can do to fulfill its obligations to funders [9]. Performance appraisal is one important component in the management control system to determine the level of success of the company in achieving the objectives applied, both short and long term. Performance measurement shows a close relationship between planned objectives and the results achieved by the company.

8) **Capital structure**: Capital structure is part of the financial structure which is a source of corporate funding consisting of long-term debt, preferred shares, and shareholder capital. The capital structure is also a very important element in making decisions on the sources of company spending, because an optimal capital structure can increase the value of the company [4]. Basically, the factors that influence the capital structure above are the interest rate, stability of earnings, risk level of an asset, the amount of capital needed, the nature of management, the condition of the capital market, the composition of assets and the size of a company are very important for the company as a basis for determining the composition of the capital structure that will be used by the company.

9) **Capital cost**: EVA is a performance measurement that starts from a long-standing concept there is the cost of capital, this is a method for knowing how much the costs incurred by the company.

### III. METHODS

The research conducted is comparative descriptive research type, if viewed from the formulation of the problem and the purpose of the research is to describe or describe the measurement of the financial performance of PT. Garuda Indonesia Tbk listed on the Indonesia Stock Exchange for the period 2013-2017 by comparing the financial ratio method and the EVA method. The data that has been obtained from the Indonesia Stock Exchange is analysed using the time series method, because the data is taken based on time intervals.

The population in this study is the financial statements of PT. Garuda Indonesia Tbk which is listed on the Indonesia Stock Exchange. While the sample used in this study is the balance sheet, income statement of PT. Garuda Indonesia Tbk during the period 2013-2017. The type of data used in this study is quantitative data, namely PT. Garuda Indonesia Tbk listed on the Indonesia Stock Exchange, in the form of balance sheet and profit / loss in 2013-2017. The data was obtained through the Indonesia Stock Exchange website: www.idx.co.id and www.kai.id. Data collection method used is documentation.

Data analysis method in measuring the company's financial performance is carried out using the Economic Value Added method and Financial Ratios. After the data is processed, the next step is to draw conclusions from verification. Conclusions and verification to make it easier for researchers to see the overall picture or certain parts of the research data, so that the data can be drawn conclusions. Calculation and analysis of financial ratios with the time series analysis method (in 2013 to 2017) to determine the company's financial performance and the development of the company's financial ratios from year to year.

### IV. RESULTS AND DISCUSSION

#### A. Ratio Analysis

Ratios that can be used in measuring the financial performance of PT. Garuda Indonesia Tbk for the year 2013-2017, namely Liquidity Ratios, Solvency Ratios, Activity Ratios and Profitability Ratios as follows:

1) **The liquidity ratio aims to measure the company’s ability to meet its short-term obligations**

   a) **Current ratio**: The value of the current ratio has fluctuated from 2013-2017. In 2013 the current ratio was 83.25%, then decreased in 2014 to 66.47%. In 2015 the current ratio increased to 84.28, but in the next two years namely 2016-2017 the current ratio declined again by 74.52% and 51.34%. Overall, the value of Current Ratio does not reach 100%, meaning that the company is unable to cover current debt with its current assets.

   b) **Quick ratio**: Quick ratio is a ratio that compares current assets minus inventories divided by current liabilities.

2) **Debt to assets ratio**: This ratio shows the relative value between the total value of debt to total assets. The ratio is calculated by dividing the total value by total assets. Based on the results of the study, obtained debt to assets ratio data as follows:

   The value of debt to assets ratio always increases from 2013-2017. In 2013 the debt to assets ratio was 62.18%, then increased in 2014 to 70.44%. In 2015 the debt to assets ratio increased to 70.44%.
increased to 71.28%, and in the two years after that, 2016-2017, increased again respectively by 72.98% and 75.09%. Overall, in 2013-0017, 60% -75% of the assets owned by the company were financed by debt, both long-term debt and short-term debt, while the remaining 25% -40% were financed by capital. The company's solvency is not good because with capital that reaches 25% -40% of the company's assets, the company does not have a good ability to pay off all existing obligations. If the amount of debt is too much, this will also burden the company's finances.

3) Debt to equity ratio: Debt to equity ratio shows the relative value between total debt and total equity. The ratio is calculated by dividing the total value of debt by total equity.

The above, the value of debt to equity ratio always increases from 2013-2017. In 2013 the debt to equity ratio was 164.40%, then increased in 2014 to 238.25%. In 2015 the debt to equity ratio increased to 248.16%, and in the two years after that, 2016-2017, increased again respectively by 270.09% and 301.43%. Debt to equity ratio of the company always increases. This means that the company is financed by creditors (not lenders) and not from its own financial sources which may be a fairly dangerous trend. Lenders and investors usually choose a low Debt to Equity Ratio because their interests are better protected if there is a decline in business at the company concerned. Thus, a company that has a high Debt to Equity Ratio may not be able to attract additional capital with loans from other parties.

4) Activity ratio: The activity ratio aims to measure the extent of the company's activities in using its funds effectively and efficiently.

a) Total Assets Turn Over (TATO): Total Asset Turnover Ratio is a ratio that measures a company's ability to generate sales from its total assets by comparing net sales with total assets. Based on the research results, the total asset turnover ratio data is obtained as follows:

The total value of assets turn over always increases and decreases from 2013-2017. In 2013 total assets turnover was 1.26 times, then increased in 2014 to 1.27. In 2015-16 the total assets turnover decreased respectively to 1.15 and 1.03, and in the year after that, 2017 again increased to 1.11.

b) Working Capital Turn Over (WCTO): Working Capital Turn Over ratio is the ratio between sales and net working capital of a company. The value of net working capital is obtained from current assets minus current debt. Based on the research results, Working Capital Turn Over data is obtained as follows:

The value of working capital turnover always increases and decreases from 2013-2017. In 2013 working capital turnover was -22.55 times, then increased in 2014 to -9.62. In 2015, working capital turnover decreased to -20.29, and in the following year, 2016-2017, it increased to -9.70 and -4.47, respectively.

5) Profitability ratio: The profit ratio aims to measure and find out how far the effectiveness of management in managing the company.
Return on Equity increased to 8.20%, but in the two years after that namely 2016-2017 Return on Equity declined even negative again by 0.93% and -72.41%. Overall, Return on Equity is not good for corporate finance, which means the company has not been able to optimize its capital to generate profits.

B. Economic Value Added Analysis

Economic Value Added is a measure of company performance EVA concept is not intended to replace the existing income statement. This approach is only an analytical tool that is used as additional financial information that is very useful for creditors and the provision of funds in determining its relationship with the company. EVA is measured by the formula EVA = NOPAT minus capital charges, where capital charges are the product of invested capital with WACC.

The steps in calculating Economic Value Added are as follows:

1) Analysis of Net Operating Profit After Tax: The purpose of analyzing NOPAT is to find out how much an increase in net profit obtained by the company's operating profit after deducting income tax. Where we can see based on the financial statements, especially profit before tax and income tax of PT. Garuda Indonesia Tbk for the year 2013-2017, NOPAT is obtained as follows:

Net Operating Profit After Tax analysis results in the last 4 years can be seen experiencing fluctuations. In 2013 amounted to Rp.137,428. Then in 2014 it even decreased negatively by Rp. 4,462,880, this was caused by the company experiencing losses in 2014 where the company's operating expenses exceeded revenues, in addition the company also has a tax burden causing negative company NOPAT. In 2015 it increased by Rp.1,075,576, but in 2016 it declined again by Rp.125,826, this was due to a significantly lower profit. Then in 2017 the decline will be as much as Rp. -9,196,931. This is due to the company experiencing a loss in 2017, besides that the company also has a current tax burden and a large deferred tax causing negative company NOPAT.

2) Invested capital: Invested Capital is calculated by the formula of total debt and equity - short term debt. From the formula above we can see the financial statement data, especially total debt and equity and short-term debt.

It appears that the total capital invested from 2013-2016 has fluctuated. This is because total debt and short-term debt are always experiencing an increase, while equity is experiencing fluctuations. It can be seen from the data that the increase and decrease in equity is in line with the increase and decrease in invested capital. In 2013 the total capital generated was Rp. 24,170,601. In 2014, Rp.23,397,720. And in 2015 and 2016 increased by Rp.29,162,749 and Rp.29,209,773. Then it declined again in 2017 to Rp. 24,947,910.

From the calculation of NOPAT and Capital Charges above, a table of EVA calculation results is presented at PT. Garuda Indonesia Tbk for the period 2013-2017 follows:

That Economic Value Added at PT. Garuda Indonesia Tbk in the period 2013-2017 experienced fluctuations. Financial performance generated in 2013 to 2017 (EVA <0) means that there is no economic value added process or the company is unable to produce an operating return that exceeds the cost of capital, in other words the company fails to create value for capital owner thus signifies poor financial performance.

C. Comparative Analysis of Financial Performance Based on Financial Ratios with Economic Value Added

Based on an analysis of financial performance based on financial ratios and Economic Value Added PT. Garuda Indonesia Tbk for the period 2013-2017 as follows:

- In 2013, the profitability ratio consisted of Operating Profit Margin (OPM) of 1.52%, Net Profit Margin (NPM) of 0.30, Return on Assets (ROA) of 0.38%, Return on Equity (ROE) of 1.00%, which the entire profitability ratio in 2013 was able to generate profits. This is different from the EVA value of -571,575 (EVA <0) which means the company is not able to increase economic added value. The company's management is not able to create value because the returns generated by the company are less than the cost of capital and there has been an ineffective and inefficient use of capital.

- In 2014, the profitability ratio consisted of Operating Profit Margin (OPM) of -10.15%, Net Profit Margin (NPM) of -9.46%, Return on Assets (ROA) of -12.00%, Return on Equity (ROE) of -40.58%, where all profitability ratios in 2014 were not able to generate profits. This is in line with EVA value of -2,264,112 (EVA <0) which means the company is not able to increase economic added value. The company's management is not able to create value because the returns generated by the company are less than the cost of capital and there has been an ineffective and inefficient use of capital.

- In 2015, the profitability ratio consisted of Operating Profit Margin (OPM) of 4.42%, Net Profit Margin (NPM) of 2.04, Return on Assets (ROA) of 2.36%, Return on Equity (ROE) of 8.20%, wherein the entire profitability ratio in 2015 was able to generate profits. This is different from the Economic Value Added value of -52,872 (EVA <0) which means the company is unable to increase economic value added. The company's management is not able to create value because the returns generated by the company are less than the cost of capital and there has been an ineffective and inefficient use of capital.

- In 2016, the profitability ratio consisted of Operating Profit Margin (OPM) of 2.56%, Net Profit Margin (NPM) of 0.24, Return on Assets (ROA) of 0.25%, Return on Equity (ROE) of 0.93%, wherein the entire profitability ratio in 2016 was able to generate profits. This is different from the EVA value of -311,512 (EVA <0) which means the company is not able to increase economic added value. The company's management is
unable to create value because the returns generated by the company are less than the cost of capital and there has been an ineffective and inefficient use of capital. In 2017, the profitability ratio which consisted of Operating Profit Margin (OPM) of -16.25%, Net Profit Margin (NPM) of -16.25%, Return on Assets (ROA) of -18.04%, Return on Equity (ROE) of -72.41%, where all profitability ratios in 2017 were unable to generate profits. This is in line with EVA value of -7,840,333 (EVA <0) which means the company is unable to increase economic value added. The company’s management is not able to create value because the returns generated by the company are less than the cost of capital and there has been an ineffective and inefficient use of capital”.

V. CONCLUSION

Based on the description of the results of the study in the previous chapter, it can be concluded as follows:

- Financial performance of PT. Garuda Indonesia Tbk during the 2013-2017 period based on financial ratios was able to generate profits namely in 2013, 2015 and 2016, while in 2014 and 2017 the company suffered losses.

- Financial performance of PT. Garuda Indonesia Tbk during the 2013-2017 period based on negative EVA (EVA <0) means that there was no economic value added process or the company was unable to produce an operating return that exceeded the cost of capital, in other words the company failed to create value for the capital owner thus indicating poor financial performance.

- Comparison of financial performance measured based on financial ratios and EVA there are differences where financial ratios in 2013, 2015 and 2016 are able to generate profits, while the EVA value has a negative value in that year. In 2014 and 2017 the company suffered losses, where in that year the highest EVA value was obtained in the 2013-2017 period. This is because the analysis of the financial disadvantages of the people is not to the extent that it is usually expensive so that the value of the economy is not counted as yet.

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