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Abstract

This study aims to analyze and assess the financial performance of PT Vale Indonesia using the Economic Value Added (EVA) approach during the 2019-2022 period. The type of research used is quantitative using descriptive data. The population in this study is the financial statements of the mining company PT Vale Indonesia Tbk. for the last 4 years, namely 2019-2022. The sample of this study is the statement of financial position and comprehensive income. The data collection technique used is documentation. The data analysis technique used is Economic Value Added (EVA) analysis which consists of NOPAT, Invested Capital, WACC, and Capital Charges. The results of this study indicate that the value of Economic Value Added (EVA) at PT Vale Indonesia Tbk. period 2019-2022 is always positive (EVA > 0) so that it can be said that management is able to create economic added value for the company. The results of the analysis using the Economic Value Added (EVA) method to measure the financial performance of the mining company PT Vale Indonesia Tbk. period 2019-2022, showed that during 2019 to 2022 it was always positive (EVA > 0). Based on this, it can be said that management is able to create economic added value for the company, investors or capitalists get more investment returns than invested and creditors can get interest, this situation shows that the company has succeeded in creating value for capital owners so that it indicates good financial performance.

Keywords: Analysis, Economic Value Added, EVA, Financial Performance, Method

Introduction

Measuring financial performance is something that needs to be considered in knowing the extent to which a company's finances have increased or decreased. A company's financial performance is a reflection of a company's success in managing and controlling all the company's existing resources. Financial performance can also be interpreted as the results or achievements that have been achieved by company management in carrying out their function of managing the company within a certain period, and through this financial performance the level of company health can be known so that investors can assess the financial performance of a company. Financial performance assessment is very necessary to determine the activities and operational effectiveness of a company based on predetermined criteria.

To measure financial performance, the media used are financial reports. Financial reports are the obligation of every company to prepare and report its company's finances for a certain period. What is reported will be analyzed so that the company's current condition and position can be known. Financial reports provide information on the financial position and performance that the company has achieved in a certain time period. Financial reports can be used as a benchmark for a company's success and help a company make plans and predict its future financial position by looking at various existing problems, both its weaknesses and strengths. According to Kasmir (2016: 7), in simple terms, financial reports are reports that show the company's current financial condition or in a certain period.

To analyze financial reports, it is necessary to have financial analysis tools that are generally used, namely financial ratios. However, the use of this financial ratio analysis tool turns out to be not effective enough because it still has weaknesses, in calculations based on financial ratios it only focuses on profits so it doesn't really pay attention to what risks the company will face in the future and the economic added value is not conveyed to investors. So to overcome this, the concept of measuring financial performance based on added value, namely Economic Value Added, was developed.

Economic Value Added first developed by Stern and Steward, an analyst from the consulting firm Stern and Steward Company in 1993 (Sawir: 2009). EVA is the most accurate tool for measuring a company's economic performance, which focuses attention on creating company value. EVA also reflects measurement of internal performance. The Economic Value Added (EVA) method is considered more profitable because performance assessment using EVA helps managers to make better investment decisions, identify opportunities to improve performance and consider long-term and short-term benefits for the company.

A positive EVA value shows management's ability to create an increase in the value of the company's/capital owner's wealth, so that it becomes a benchmark for investors and potential investors in making investment decisions. On the other hand, a negative EVA value implies a decrease in wealth value, and is followed by investors' desire to sell shares in the company. The company will be considered to have good performance if it is able to produce a positive EVA value.

Performance measurement using the Economic Value Added (EVA) method is a relevant method for measuring performance based on value, because EVA is the economic added value generated by the company as a result of management activities or strategies.

According to Brigham and Houston (2013: 73) Economic Value Added is a relatively
new financial analysis tool for assessing company performance from a financial perspective. Different from traditional accounting performance measurements, EVA tries to measure the added value (Value Creation) produced by a company by reducing the cost of capital (Cost of Capital) that arises as a result of investments made.

Cost of Capital (cost of capital) is the real cost borne by the company which is caused by the use of capital to invest and is a cost. The cost of capital is also interpreted as the minimum level of company income so that the company is not declared a loss.

As the largest nickel mining company in Indonesia, of course the company is required to have a good reputation and performance for the country. By paying attention to financial performance, companies that have good financial performance are companies that are able to increase their competitive advantage so that they can survive and win competition in the business world. This is also one aspect of assessment to see the level of success of a company, namely by looking at its financial performance.

Based on several studies it can be seen that PT. Vale Indonesia Tbk. recorded good financial performance from 2011 to 2019 by showing a positive Economic Value Added (EVA) value so it can be concluded that the company has consistency in creating economic added value for management and investors (shareholders).

Literature review

Financial statements

According to Kasmir (2016:7), "Financial reports are reports that show the company's financial condition at this time or in a certain period." Financial reports can be in the form of financial information about a company to describe the condition of the company. Basically, financial reports are the result of the accounting process which can be used as a tool to communicate financial data or company activities to related parties. Harahap (2016: 105) states that "Financial reports are reports that describe the financial condition and business results of a company at a certain time or certain period of time".

Financial performance

Munawir (2016:64) states that "Financial performance is the work performance that has been obtained by a company in a certain period and is stated in the relevant financial report”.

Economic Value Added (EVA)

This method was first developed by Stern et al. (1996) in 1993. EVA is based on the concept that the main objective of management in carrying out company operations is to create maximum prosperity for shareholders (Yuliati and Huriyah, 2019:20).

Research methods

Research variable

According to AbuzarAsra (2017 :381) a single variable is also called a single index. Indexes or single variables only discuss one variable. In this study only a single variable was used. This variable is the financial performance of the company PT. Vale Indonesia Tbk. with Economic Value Added (EVA) analysis indicators.

Research design
The research that will be used is included in the type of descriptive research with a quantitative approach. The data in this research is referred to as quantitative data, because the data consists of figures from financial reports. Meanwhile, the data source in this research uses secondary data sources.

Operational Definition and Variable Measurement
Operational definition
The following will explain the operational definition of variables in this research:
1. Economic Value Added (EVA)
   Economic Value Added (EVA) is a performance measurement method that combines the acquisition of value with the costs of obtaining that added value and measures the added value generated by a company by reducing the cost of capital that arises as a result of investments made. The indicators of Economic Value Added (EVA) are:
   a. Net Operating Profit After Tax (NOPAT)
      NOPAT is the level of profit obtained from invested capital or is the amount of profit generated if the organization has no debt or no financial assets. Or in other words NOPAT is the net profit earned by the company before invested interest and taxes and reduced by the tax rate.
   b. Weighted Average Cost of Capital (WACC) Analysis
      WACC is the rate of return that a company or investment project must generate to maintain its stock market value.
   c. Invested Capital (IC)
      IC is the comparison between net operating profit and the company's invested capital.
   d. Capital Chargers
      Charger is the cash flow needed to reimburse investors for the business risks of the capital they invest.
2. Financial performance is a description of the financial condition of the PT Company. Vale Indonesia Tbk. both regarding aspects of raising funds and distributing funds, as measured by the Economic Value Added (EVA) indicator. Through this financial performance analysis, it can be seen to what extent the company has achieved the targets set by the company management.

Variable Measurement
The measurement of variables is in accordance with the calculation of Economic Value Added (EVA) using the time series method, namely by comparing the EVA value from year to year in US Dollar units.

Population and Sample
The population in this research is the financial reports of the company PT. Vale Indonesia Tbk. The sample from this research is the financial position report and profit and loss report of the company PT. Vale Indonesia Tbk. for the last 4 years 2019-2022.
**Data collection technique**

The data collection method for this research is the documentation method, namely collecting information about the company PT. Vale Indonesia Tbk. in the form of financial reports via the official website of the relevant company, namely [www.vale.com](http://www.vale.com).

**Data analysis technique**

The data analysis technique used is quantitative analysis, namely analysis based on data that can be calculated. The quantitative stages for determining Economic Value Added (EVA) are as follows:

1. **Calculating NOPAT**
   
   According to Tunggal (2013:5) "NOPAT is profit generated from company operations after deducting income tax, including finance costs and non-cash bookkeeping entries such as depreciation costs." According to Rudianto (2013:218). According to Dwitayanti, as quoted by Toto Heru Dwihandoko, NOPAT is the profit obtained from company operations after deducting income tax.  

   \[
   \text{NOPAT} = \text{EBIT} - \text{Tax}
   \]

2. **Calculating Invested Capital**
   
   According to Dwiyanti, as quoted by Toto Heru Dwihandoko, Invested capital is the total amount of company loans excluding non-interest bearing liabilities.

   **Invested Capital** = **Total Debt and Equity** – **Short Term Debt**

3. **Calculating WACC**
   
   According to Dwitayanti, as quoted by Toto Heru Dwihandoko, WACC is the cost of equity and the cost of debt, each of which is multiplied by the percentage of equity and debt in the company's capital structure.

   \[
   \text{WACC} = \{(D \times \text{rd}) (1 - \text{Tax}) + (E \times \text{re})\}
   \]

   Where:
   
   - **Capital Level (D)** = \(\frac{x \times 100\%}{\text{Total Utang dan Ekuitas}}\)
   - **Cost of Debt (rd)** = \(\frac{x \times 100\%}{\text{Total Utang}}\)
   - **Capital and Equity Levels (E)** = \(\frac{x \times 100\%}{\text{Total Utang dan Ekuitas}}\)
   - **Cost of Equity (re)** = \(\frac{x \times 100\%}{\text{Laba Bersih setelah Pajak}}\)
   - **Tax Level (Tax)** = \(\frac{x \times 100\%}{\text{Laba Bersih Sebelum Pajak}}\)

4. **Calculating Capital Charges**
   
   **Capital charges** is the cash flow needed to reimburse investors for the business risks of invested capital. According to Dwiyanti, as quoted by Toto Heru Dwihandoko, capital charges can be formulated as follows.

   \[
   \text{Capital Charges} = \text{WACC} \times \text{Invested Capital}
   \]

5. **Calculating Economic Value Added (EVA)**
   
   According to Houston as quoted by Toto Heru Dwihandoko, EVA is the excess of NOPAT over the cost of capital, which is formulated as follows.

   \[
   \text{EVA} = \text{NOPAT} - \text{Capital charge}
   \]

Based on the criteria for the results of the Economic Value Added (EVA) analysis above, the company's financial performance can be determined as follows.
1. If the EVA results show a positive value (EVA > 0), then the company can be said to have experienced an increase in financial performance.
2. If the EVA results show (EVA = 0) or a negative value (EVA < 0), then the company is said to be experiencing a decline or having poor financial performance.

Research result
Analysis of Research Results
1. NOPAT Calculation Results

<table>
<thead>
<tr>
<th>Year</th>
<th>EBIT (US$)</th>
<th>Tax (US$)</th>
<th>NOPAT (US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>89,136</td>
<td>(31,736)</td>
<td>57,400</td>
</tr>
<tr>
<td>2020</td>
<td>104,645</td>
<td>(21,826)</td>
<td>82,819</td>
</tr>
<tr>
<td>2021</td>
<td>220,645</td>
<td>(54,848)</td>
<td>165,797</td>
</tr>
<tr>
<td>2022</td>
<td>275,819</td>
<td>(75,418)</td>
<td>200,401</td>
</tr>
</tbody>
</table>

(Source: Data processed in 2023)

Based on the table above, it is known that the Net Operating Profit After Tax (NOPAT) value of PT. Vale Indonesia Tbk. during the 2019-2022 period, the EBIT value continued to increase, this shows that PT. Vale Indonesia Tbk. able to increase sales by reducing sales and marketing expenses. The main factor, of course, is that the average realized price of nickel in matte deliveries which is higher each year has a positive influence on the company's financial performance.

2. IC Calculation Results

<table>
<thead>
<tr>
<th>Year</th>
<th>Total debt and Equity (US$)</th>
<th>Short Term Debt (US$)</th>
<th>Invested Capital (US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>2,222,688</td>
<td>136,552</td>
<td>2,086,136</td>
</tr>
<tr>
<td>2020</td>
<td>2,314,658</td>
<td>160,710</td>
<td>2,153,948</td>
</tr>
<tr>
<td>2021</td>
<td>2,472,828</td>
<td>168,430</td>
<td>2,304,398</td>
</tr>
<tr>
<td>2022</td>
<td>2,658,116</td>
<td>175,039</td>
<td>2,483,077</td>
</tr>
</tbody>
</table>

(Source: Data processed in 2023)

Based on the table above, it is known that the value of Invested Capital (IC) of PT. Vale Indonesia Tbk. over the last 4 years has increased. This is because total debt and equity have increased more than total short-term debt.
3. WACC Calculation Results

Table 3 Weighted Average Cost of Capital (WACC) PT. Vale Indonesia Tbk. 2019-2022

<table>
<thead>
<tr>
<th>Year</th>
<th>D (%)</th>
<th>Rd (%)</th>
<th>Taxes (%)</th>
<th>E (%)</th>
<th>Re (%)</th>
<th>WACC (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>12.64</td>
<td>1.39</td>
<td>35.6</td>
<td>87.35</td>
<td>2.95</td>
<td>2.68</td>
</tr>
<tr>
<td>2020</td>
<td>12.71</td>
<td>1.25</td>
<td>20.85</td>
<td>87.28</td>
<td>4.09</td>
<td>3.69</td>
</tr>
<tr>
<td>2021</td>
<td>12.87</td>
<td>1.60</td>
<td>24.85</td>
<td>87.12</td>
<td>7.69</td>
<td>6.84</td>
</tr>
<tr>
<td>2022</td>
<td>11.41</td>
<td>2.27</td>
<td>27.34</td>
<td>88.58</td>
<td>8.51</td>
<td>7.72</td>
</tr>
</tbody>
</table>

(Source: Data processed in 2023)

Based on data from several tables above, it can be seen that the Weighted Average Cost of Capital (WACC) value of PT. Vale Indonesia Tbk during 2019-2022 experienced the largest increase in the Weighted Average Cost of Capital (WACC) value of up to 7.72%. This is due to an increase in the cost of equity component (Re), and will have a good impact on investors.

4. CC Calculation Results

Table 4 Capital Charges (CC) PT. Vale Indonesia Tbk. 2019-2022.

<table>
<thead>
<tr>
<th>Year</th>
<th>Invested Capital (US$)</th>
<th>WACC (%)</th>
<th>Capital Charges (US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>2,086,136</td>
<td>2.68</td>
<td>55,908</td>
</tr>
<tr>
<td>2020</td>
<td>2,153,948</td>
<td>3.69</td>
<td>79,480</td>
</tr>
<tr>
<td>2021</td>
<td>2,304,398</td>
<td>6.84</td>
<td>157,620</td>
</tr>
<tr>
<td>2022</td>
<td>2,483,077</td>
<td>7.72</td>
<td>191,693</td>
</tr>
</tbody>
</table>

(Source: Data processed in 2023)

Based on data from several tables above, it can be seen that the Capital Charge (CC) value of PT. Vale Indonesia Tbk continues to experience the largest increase during the 2019-2022 period, reaching US$ 191,693. PT. Vale Indonesia Tbk was able to produce an increase in the WACC value so that it continued to produce an increased Capital Charge (CC) level. This increase cannot be separated from the level of Invested Capital which is so large and consistently increases every year.

5. EVA Calculation Results

Table 5 Economic Value Added (EVA) PT. Vale Indonesia Tbk 2019-2022.

<table>
<thead>
<tr>
<th>Year</th>
<th>NOPAT (US$)</th>
<th>Capital Charges (US$)</th>
<th>EVA (US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>57,400</td>
<td>55,908</td>
<td>1,492</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>NOPAT</th>
<th>Capital Invested</th>
<th>EVA</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>82,819</td>
<td>79,480</td>
<td>3,339</td>
</tr>
<tr>
<td>2021</td>
<td>165,797</td>
<td>157,620</td>
<td>8,177</td>
</tr>
<tr>
<td>2022</td>
<td>200,401</td>
<td>191,693</td>
<td>8,708</td>
</tr>
</tbody>
</table>

(Source: Data processed in 2023)

Based on the table data above, it can be seen that PT. Vale Indonesia Tbk. from 2019 to 2022, the Economic Value Added (EVA) continues to increase until it reaches US $ 8,708. This is because operating profit after tax is greater than the capital invested in the company. With the resulting positive Economic Value Added (EVA) value, it can be said that the company's financial performance is in good condition.

Discussion

Based on previous research analysis, it can be seen from the NOPAT aspect obtained by PT. Vale Indonesia Tbk. during the 2019-2022 period, the EBIT value continued to increase, this shows that PT. Vale Indonesia Tbk. able to increase sales by reducing sales and marketing expenses. The main factor, of course, is that the average realized price of nickel in matte deliveries which is higher each year has a positive influence on the company's financial performance. From the aspect of Invested Capital obtained by PT. Vale Indonesia Tbk. over the last 4 years has increased. From the WACC aspect obtained by PT. Vale Indonesia Tbk. during 2019-2022, the Weighted Average Cost of Capital (WACC) value increased by up to 7.72%. This is due to an increase in the cost of equity component (Re), and will have a good impact on investors. From the Capital Charges aspect of PT. Vale Indonesia Tbk continued to experience an increase during the 2019-2022 period to reach US$ 191,693. PT. Vale Indonesia Tbk was able to produce an increase in the WACC value so that it continued to produce an increased Capital Charge (CC) level. From the Economic Value Added (EVA) aspect of PT. Vale Indonesia Tbk. from 2019 to 2022, the Economic Value Added (EVA) value continues to increase. Seeing every year PT. Vale Indonesia Tbk. always produces a positive EVA value (EVA > 0), so it can be said that the company's management performance is very good.

Conclusion

Based on the results of research conducted by the author using the Economic Value Added analysis method at PT. Vale Indonesia Tbk. period 2019 to 2022, it can be concluded that the Economic Value Added (EVA) value of PT. Vale Indonesia Tbk from 2019 to 2022 always has a positive value (EVA > 0). Based on this, it can be said that management is able to create added economic value for the company, investors or capital owners get more investment than invested and creditors can get interest. This situation shows that the company has succeeded in creating value for capital owners, thus indicating that its financial performance is good.
References


