



Financial Performance Analysis Using *Economic Value Added* (EVA) Method and Economic Rentability of PT Bumi Resources Tbk

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ABSTRACT

This research aims to analyze financial developments to find out how companies measure the level of achievement of Economic Value Added (EVA) and the amount of economic rentability in PT Bumi Resources Tbk selama period 2018-2021. The type of data collected is in the form of quantitative data in the form of data on figures such as financial statements (balance sheets & income statements). The data source used is secondary data to explain the results of the calculation of Economic Value Added (EVA) and economic rentability. The results of this study explained that the EVA level and the resulting economic rentability rate were not able to reach the standard so that in 2018 to 2021 the performance of PT Bumi Resources Tbk was not good.

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1. Introduction

The rapid economic development and increasingly fierce competition in the business world bring a big influence on companies to be able to compete with companies both at home and abroad. The competition can be overcome by showing good financial performance in the eyes of the public in general and investors in particular, the company must also continue to make various efforts to maintain competitiveness by increasing the efficiency and effectiveness of the company.

The back and forth of a company depends on the management who runs it. The effectiveness of the company can be seen in the company's financial performance and performance measurements can be done in several fields including production, marketing, and finance. In the field of finance is one of the main fields that have great dominance in running a company this is because the success of the company is still seen from the profits obtained and maximize the value of the company for its owner or the wider community.

Economic Value Added (EVA) is a measure of financial performance to take into account the company's true economic benefits. EVA is also the company's goal to increase the value added of the capital that shareholders have invested in the company's operations. EVA can be calculated by the difference in operating profit after tax (Net Operating Profit After Tax or NOPAT) with capital costs (Cost of capital) (Dewi: 2005; Setyawati et al., 2021).

The concept of Economic Value Added (EVA) is able to cover the weaknesses of financial ratio analysis because the use of financial ratio analysis as a conventional accounting gauge has a major drawback, namely ignoring the existence of capital costs so that it is difficult to know whether a company has succeeded in creating a value or not. So the concept of EVA helps these weaknesses (A.Sawir 2001; Supardi & Chandrarin, 2021). EVA which is positive value means that the company is considered to have been able to create value for shareholders because it is able to generate operating profit above capital costs. With regard to EVA as a performance measuring tool that also considers investors' expectations of investments made, EVA identifies how far the company has come in creating value for company owners.

Economic rentability is one of the measuring instruments to measure whether the capital used by the company is productive or not, therefore economic rentability is used to measure the ability of a company with all the capital working in it to generate profits (Riyanto 2001; Andrian & Supardi, 2020). In his calculations economic rentability only Using profit derived from the company's operations, namely the so-called net operating income (net operating income) while in its calculation EVA includes all elements or elements contained in the balance sheet and statement of profit and loss of the company so that it becomes comprehensive (covering). EVA also provides a reasonable assessment of the company's condition. (Amin Wijaya Tunggal 2001; Setyawati, 2020).

PT Bumi Resources which is a company engaged in the provision of integrated services in the field of mining that provides expertise as a general mining contractor, maintenance and maintenance of mining heavy equipment, mining excavation and civil works. The company's activities are supported by human resources that have high competence and a fleet of excavation heavy equipment, complete and reliable material production and transportation.

Table 1
Financial data of PT Bumi Resources TBK (Presented in USD)

Financial statements	Financial statement			
Description	2021	2020	2019	2018
Income	334,997,337	283,366,897	230,086,146	201,466,055
Profit (loss) of business	(19,631,886)	(7,258,476)	5,276,127	4,741,731
Net profit (loss)	(41,028,454)	(24,012,349)	588,128	(1,847,471)
Net working capital	51,315,134	115,183,064	106,268,599	(11,385,170)
Amount of Assets	439,475,800	406,125,904	462,511,533	462,189,037
Amount of Liabilities	165,903,424	92,355,692	124,695,578	187,420,657
Amount of Equity	273,572,376	313,770,212	337,815,955	273,771,450

Data source : Financial Report of PT Bumi Resources 2018-2021

As a business unit whose activities always aim to earn profits, it is appropriate for PT Bumi Resources Tbk to think of various strategies to improve the company's ability to generate profits. However, the company also realizes that large profits are not an absolute measure of the company has been managed effectively and efficiently so it would be better for us to also assess the company's performance thoroughly through its financial statements.

To achieve the company's goal of maximizing the value of the company, therefore, a performance evaluation of financial management is needed by measuring performance on the company's finances. *Performance measurement* is a process of assessing the progress of work on predetermined goals and objectives, including information on the efficiency of using resources in producing goods and services, the quality of goods and services (how well goods and services are delivered to customers and to how far customers are satisfied), the results of activities compared to the desired intent, and the effectiveness of actions in achieving goals. (Husein Umar: 2003, p. 123).

2. Method

The analysis was conducted to assess the company's financial performance for the period 2018-2021 using quantitative and qualitative analysis. Quantitative analysis is by using nominal scale analysis and ratio scale analysis. Qualitative analysis to explain the results of calculations of *Economic Value Added* (EVA) and economic rentability.

2.1 Economic Value Added

Measure the company's performance by reducing operating profit after tax by capital costs, where the capital cost burden reflects the company's level of risk.

The steps of EVA counting are as follows:

- NOPAT (*Net Operating Profit After Tax*)
NOPAT = EAT + Interest Charges
- Invested Capital*
Invested Capital = Total debt and Equity – Short-term loans with no interest

- WCR = (Inventory + Accounts receivable + Net deferred tax assets) – (Business debt + accrued expenses + customer down payment)
- c. WACC (*Weighted Average Cost of Capital*)

$$\text{WACC} = [(D \times r_d) (1 - \text{Tax}) + (E \times r_e)]$$
- d. *Capital charges calculations*
 Capital charges = Invested Capital x WACC
- e. EVA Calculation

$$\text{EVA} = \text{NOPAT} - \text{Capital Cost}$$

$$\text{EVA} = \text{NOPAT} - (\text{Capital Employed} \times \text{WCC})$$

$$\text{EVA} = \text{NOPAT} - \text{Capital charges}$$
 Where: NOPAT = EBIT (1-Tax) or EAT + Interest charges

Capital Employed (Invested Capital) is the amount of all company capital other than obligations that do not bear interest (*non interest bearing liabilities*). In other words, *Capital Employed* is equal to the amount of shareholder capital and all loans that have interest, both short-term loans and long-term loans. *Weight-Average Cost of Capital (WACC)* is the amount of cost of each component of capital calculated based on the relative proportion in the capital structure of the company.

2.2 Economic Rentability

In the calculation of economic rentability, the calculated profit is only the profit derived from the company's operations which is commonly called *net operating income*. Thus, the profit obtained from businesses outside the company (for example; dividends, coupons and others) is not taken into account in calculating economic rentability. Economic rentability can be calculated using the formula:

Profit Margin x operating Assets Turnover

$$\frac{\text{Net operating Income}}{\text{Operating Assets}} \times 100\%$$

- a. Profit Margin
 Comparison between "*net operating income*" and "*net sales*" comparison in percentage

$$= \frac{\text{Net Operating Income}}{\text{Net Sales}} \times 100\%$$
- b. *Operating assets turnover* (business asset turnover rate)
 The speed of the *spinning of operating assets* in a certain period. *The turnover* can be determined by dividing *net sales* by "*operating assets*"

$$= \frac{\text{Net Sales}}{\text{Net Operating Assets}} \times 1 \text{ times}$$
- c. *Earning Power*
 The results of *profit margin* and *turnover of operating assets* that can mathematically be known the amount of economic rentability.

$$= \text{Profit Margin} \times \text{Operating assets turnover or} \frac{\text{Net Operating Income}}{\text{Net Sales}} \times \frac{\text{Net Sales}}{\text{Net Operating Assets}}$$

2.3 Hypothesis

Hypothesis is a temporary assumption that must be proven to be true. So based on other explanations and formulations of problems that have been stated above, the research assumptions are as follows:

- It is suspected that PT Bumi Resources' *Economic Value Added* (EVA), namely $\text{EVA} < 0$, means that there is no company value-added process so that financial performance is not good.
- It is suspected that the performance of PT Bumi Resources companies using economic rentability has not been able to work efficiently in the use of company capital.

3. Results and Discussions

EVA (*Economic Value Added*) and economic rentability at PT Bumi Resources Tbk are measurements of the company's ability to use capital productively to generate profits. The higher the economic rentability produced by the company, the higher the efficiency produced by the company.

By conducting an analysis of the balance sheet posts, an overview of the company's financial position will be obtained, while the analysis of the company's profit loss statement will provide an overview of the results or business development of the company concerned.

3.1 EVA Discussion

The steps that need to be done to obtain *eva (Economic Value Added)* value are as follows:

- a. Calculating *Net Operating Profit After Tax (NOPAT)*

$$\text{NOPAT} = \text{EAT (Earning After Tax)} \text{ net income after tax} + \text{Interest Expense}$$

Table 2

NOPAT Calculation Results (in US dollars)

Information	2018	2019	2020	2021
EAT	(1.847.471)	588.128	(24.012.349)	(41.028.454)
Interest Charges	11.211.779	6.436.177	3.619.778	2.624.067
NOPAT	(13.059.250)	7.024.305	(27.632.127)	(43.652.521)

Source: data processed

Based on table 2, it can be known that the change in NOPAT value every year is generally negative because the RESULTING EAT (*Earning After Tax*) suffered a loss only in 2019 whose value is in a positive state. From the data above, it can be analyzed that pt Bumi Resources Tbk's NOPAT in 2018 was negatively valued at \$ 13,059,250, which increased by \$ 6,034,945 in 2018 to \$ 7,024,305 in 2019. The increase did not last long in 2020 with a decrease of negative \$20,607,822 from \$ 7,024,305 in 2019 to \$ 27,632,127 in 2020. It decreased back in 2021 negatively by \$16,020,394 from \$27,632,127 in 2020 to \$ 43,652,521 in 2021. The decline can be said that the company has not been able to increase net profit.

- b. *Invested Capital* Calculation

The results of the *Invested Capital* calculation are presented as follows:

Table 3.

Invested Capital (in US dollars)

Information	2018	2019	2020	2021
Total Debt and Equities	462.189.037	462.511.533	406.125.904	439.475.800
Short-term loans without interest	152.812.892	74.545.033	77.339.182	124.854.809
Invested Capital	309.376.145	387.966.500	328.786.722	314.620.991

Source: data processed

Based on table 3 in 2018 *Invested Capital* of \$309,376,145 in 2019 increased by \$78,590,355 to \$387,966,500 in 2019 and is also the highest *Invested Capital*. In 2018, it decreased by \$59,179,778 from 2020 to 2021, which was \$328,786,722 and in 2021 it also decreased by \$14,165,731 to \$314,620,991. *Invested Capital* was the highest in 2018. This is because the amount of capital invested by investors identifies the amount of value invested in the company.

Table 4

WCR (*Working Capital requirement*) (in US dollars)

Information	2018	2019	2020	2021
Supplies	40.317.228	35.912.278	30.206.759	32.575.383
Accounts receivable	17.907.356	36.728.082	45.369.679	65.771.152
Net-deferred tax assets	448.616	2.675.954	564.289	7.424.078
Sum	58.673.200	75.316.314	76.140.727	105.770.613
Business debt	24.296.585	30.275.593	36.762.417	86.728.652
Accrued costs	8.756.954	7.682.645	17.995.781	12.308.611
Customer down payment	-	-	7.900.595	9.095.662
Sum	33.053.539	37.958.238	62.658.793	108.132.925
WCR	25.619.661	37.358.076	13.481.934	(2.362.312)

Source: data processed

c. Calculating WACC (*Weighted Average Cost of Capital*)

To know the WACC must know:

Capital Level (D) =	$\frac{\text{Total Debt}}{\text{Total Debt and Equity}}$	x100%
Cost of Debt (r_d) =	$\frac{\text{Interest Expense}}{\text{Total Debt}}$	x100%
Cost of Equity (r_e) =	$\frac{\text{Net profit (loss) after tax}}{\text{Total Equity}}$	x100%
Total Capital and Equity (E) =	$\frac{\text{Total Equity}}{\text{Total Debt and Equity}}$	x100%
Tax rate (Tax) =	$\frac{\text{Tax Expense}}{\text{Net income (loss) before tax}}$	x 100%

Here is the calculation of WACC in table 4 as follows:

WACC formula = $[(D \times r_d) (1 - \text{Tax}) + (E \times r_e)]$

Table 5

WACC calculation (in US dollars)

Information	2018	2019	2020	2021
D	0,4055	0,2696	0,2274	0,3775
Rd	0,0598	0,0516	0,0391	0,0158
Re	-0,0067	0,0017	-0,0765	-0,1499
E	0,5923	0,7303	0,7725	0,6224
Tax	-0,2694	-0,6442	-0,2117	-0,0006
WACC	0,0268	0,0240	(0,0483)	(0,0872)

Source: data processed.

Based on table 5, it can be known that the change in wacc calculations in 2018 amounted to 0.0268 experienced a positive decrease of 0.0028 in 2019, which was to 0.0240. In 2020, the resulting WACC decreased by 0.0243 to 0.0483 because this was due to the *negative cost of equity* value generated in 2020 because the company could not produce a profit above equity value, the same thing in 2021 experienced a negative decrease back by 0.0389 to 0.0872.

d. *Capital Changes* Calculation

The results of the calculation of *Capital changes* are presented as follows:

Capital changes = *Invested Capital* x WACC

Table 6

Capital charges (in US dollars)

Information	2018	2019	2020	2021
<i>Invested Capital</i>	309.376.145	387.966.500	328.786.722	314.620.991
WACC	0,0268	0,0240	(0,0483)	(0,0872)
<i>Capital changes</i>	8.291.280,68	9.311.196	(15.880.398,67)	(27.434.950,41)

Source: data processed

Based on table 6, the value of *Capital changes* in 20018 of \$8,291,280.68 increased by \$1,019,915.32 in 2019 to \$9,311,196. In contrast, in 2020 *Capital changes* decreased by \$ 6,569,202.67 to negative by \$ 15,880,398.67 due to wacc generated negative value of 0.0483, the same as in 2021 experienced a negative decrease of \$ 11,554,551.74 WACC generated in 2021 of negative \$ 27,434,950.41.

e. Calculating EVA

The results of measuring financial performance using the EVA method are as follows:

Table 7

EVA (in US dollars)

Information	2018	2019	2020	2021
NOPAT	(13.059.250)	7.024.305	(27.632.127)	(43.652.521)
WCR	25.619.661	37.358.076	13.481.934	(2.362.312)
Invested Capital	309.376.145	387.966.500	328.786.722	314.620.991
Capital level of Debt (D)	40,55%	26,96%	22,74%	37,75%
Cost of Debt (r_d)	5,98%	5,16%	3,91%	1,58%

Information	2018	2019	2020	2021
Income tax (tax)	-26,94%	-64,42%	-21,27	-0,06%
Capital Level of Equity (E)	59,23%	73,03%	77,25%	62,24%
Cost of Equity (r_e)	-0,67%	0,17%	-7,65%	-14,99%
WACC	2,68%	2,4%	(4,83%)	(8,72%)
Capital Changes	8.291.280,68	9.311.196	(15.880.398,67)	(27.434.950,41)
EVA	(4.767.969,32)	(2.286.891)	(11.751.728,3)	(16.217.570,6)

Source: data processed

The measurement of management financial performance produced by the company with eva value in 2018 was negatively valued at \$ 4,767,969.32 and the value of *capital changes* produced by the company in 2018-2019 increased by \$ 1,019,915.32. then the value of EVA generated in 2019 decreased negatively by \$ 2,481,078.32 to negative \$ 2,286,891 in 2019. The eva value generated by the company in 2020 experienced a negative increase of \$9,464,837.3 to \$11,751,728.3 in 2020, which was obtained from the net profit value of after-tax operations (NOPAT) minus the value of *capital changes*, but the value of NOPAT generated by the company in 2019 to 2020 decreased negative value by \$ 20,607,822 and also the value of *capital changes* there was a negative decrease in value from 2019 to 2020 of \$6,569,202.67 which affected the value of EVA in 2019 to 2020. Measurement of management's poor financial performance and decreased drastically by \$ 4,465,842.3, namely the value of EVA in 2021 compared to other years with an EVA value of \$ 16,217,570.6 and *capital changes* experienced a negative increase of \$ 11,554,551.74 from 2020 to 2021, this happened because the value of NOPAT of \$ 16,020,394 experienced a negative increase from 2020 to 2021.

3.2 Calculation of Economic Rentability

Below calculates the measurement of economic rentability:

- a. Calculating *Profit Margin* by (parahita.wordpress.com)

$$\frac{\text{Operating Income}}{\text{Revenue}} \times 100\%$$

The results of the *profit margin* measurement are presented as follows:

Table 8

Calculation of Profit Margin (in US dollars)

Information	2018	2019	2020	2021
Operating Income	4.741.731	5.276.127	(7.258.476)	(19.631.886)
Revenue	201.466.055	230.086.146	283.366.897	334.997.337
Profit Margin	2,35%	2,29%	(2,56)%	(5,86)%

Source: data processed

From the table above, profit margin decreased by 0.006, from 2.35% in 2018 to 2.29% in 2019. While profit margin in 2019 to 2020 decreased by negative value of 0.3% to negative 2.56% in 2020. The same negative decrease in 2021 by 3.3% to negative 5.86%.

- b. Calculating *Turn Over Operating Assets*

The results of the measurement of *Turn Over Operating Assets* by (parahita.wordpress.com) are presented as follows:

$$\frac{\text{Revenue}}{\text{Operating Assets}}$$

Operating Assets

Table 9

Turn Over Operating Assets (in US dollars)

Information	2018	2019	2020	2021
Revenue	201.466.055	230.086.146	283.366.897	334.997.337
Operating Assets	462.189.037	462.511.533	406.125.904	439.475.800
Turn Over Operating Assets	0,44	0,50	0,70	0,76

Source: data processed

From the data above, the *Turn Over Operating Asset* ratio increased by 0.06 to 0.50 in 2019 from *Turn Over Operating Assets* in 2018 which was 0.44. And in 2020 experienced an increase of 0.20 to 0.70 the same thing in 2021 experienced an increase of 0.06 to 0.76. It can be seen that *Turn Over Operating*

Assets tend to increase from year to year giving an idea that companies are increasingly efficient in using assets.

c. Calculating *economic earning power/rentability*

The results of the *Turn Over Operating Assets* measurement are presented as follows:

Table 10

Calculation of Economic Rentability

Information	2018	2019	2020	2021
Profit Margin	2,35%	2,29%	(2,56)%	(5,86)%
Turn Over Operating Assets	0,44	0,50	0,70	0,76
Earning power	1,03%	1,14%	(1,79%)	(4,45%)

Source: data processed

From the data above that in 2019 Earning power experienced a positive increase of 0.11% to 1.14% compared to *Earning power* in 2018 of 1.03%. The same thing in 2021 experienced a negative decline to 4.45%. The increase in economic rentability at PT Bumi Resources Tbk in 2018 to 2019 was caused by the increase in profit margin generated by the company, especially seen from the net profit and revenue generated by effectiveness to asset turnover also increased. Economic rentability is negative in 2020 due to the results of profit margin assessments getting negative results even though the effectiveness of turn over of operating assets increases. The same thing in 2021 experienced a negative rise. The economic rentability of PT Bumi Resources Tbk is influenced by revenue and net profit in addition to the turnover rate of the company's assets. The resulting increase in economic rentability of PT Bumi Resources Tbk was unable to achieve the economic rentability standard of 10% (standard data: Anthony & Govindarajan 2000:299).

3.3 Standard table of EVA financial performance and Economic Rentability

Based on the results of research and analysis that has been carried out on PT Bumi Resources Tbk can be concluded that the level of economic rentability generated by the company from 2018 is the same as in 2021 does not reach the economic rentability standard of 10%. The resulting EVA is a negative EVA.

Here is a standard table of the company's financial performance using the EVA method and Economic Rentability.

Table 11

EVA Standard Table

Year	EVA produced by PT Bumi Resources Tbk (in US dollars)	EVA standard	Company Performance
2018	(4.767.969,32)	Positive	Not good enough
2019	(2.286.891)	Positive	Not good enough
2020	(11.751.728,3)	Positive	Not good enough
2021	(16.217.570,6)	Positive	Not good enough

Standard data source: Sawir (2005:49)

Table 12

Economic Rentability Standard Table

Year	RE generated by PT Bumi Resources Tbk (in US dollars)	Standard RE	Company Performance
2018	1,03%	10%	Not good enough
2019	1,14%	10%	Not good enough
2020	(1,79%)	10%	Not good enough
2021	(4,45%)	10%	Not good enough

Standard data source: Anthony & Govindajan (2000:299)

4. Conclusion

Based on the results of research and analysis that has been conducted on PT Bumi Resources Tbk, it can be concluded that the EVA level and the level of economic rentability produced are not able to reach the standard so that in 2018 to 2021 PT Bumi Resources' performance is not good.

EVA generated by PT Bumi Resources Tbk is negative or $EVA < 0$, in 2018-2021, namely in 2018 which was \$ 4,767,969.32 in 2019 amounted to \$ 2,286,891 in 2020 \$ 11,751,728.3 in 2021 \$

16,217,570.6 due to NOPAT generated negative value and economic rentability generated by PT Bumi Resources Tbk is not able to achieve the economic Rentability standard of 10% thus it can be concluded that in 2018 to 2021 PT Bumi Resources is less able to produce company efficiency

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