

# DETERMINANT OF NET INCOME IN INDONESIA MINING COMPANIES

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## ABSTRACT

This study empirically examined the impact of operational expenses, sales volume, and accounts payable on net income in Indonesian mining businesses. With a quantitative approach, this study employs both descriptive and verification approaches. Using a purposive sampling technique, 35 financial statements from 7 mining businesses were selected from a population of 100 financial statements. The results show that operational cost significantly affected net profit with negative relations, sales volume significantly affected net profit with positive relations, and payable significantly affected net profit with positive relations. The conclusion of this study states that net profit is more dominantly influenced by sales volume compared to operational costs and accounts payable. The impact of this research is that mining companies consider how to reduce operating costs and accounts payable and increase sales volume in company operations.

**Keywords:** operational cost; sales volume; accounts payable

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## INTRODUCTION

One of the primary goals of any business is to make a profit and create intense competition to assess how well the Company is generating profits. Without the profit obtained, the Company cannot meet other objectives, namely the ongoing concern for growth and social responsibility (corporate social responsibility). Two determinants of income: (1) earnings are inflows or increases in the value of the assets of an entity or settlement of liabilities of the entity, or a

combination of both of them for a certain period from the submission/production of goods, the provision of services on implementing other measures related to the Company's main activity is running. (2) the cost i.e., all the sacrifices that need to be done for a production process, which is expressed in units of currency according to the prevailing market price, either already happened or will happen. Cost is also a considerable deduction element concerning achieving the Company's profit. The Company's operating costs need to be

controlled as well as possible. Even though operations can run smoothly and well, if they are not supported by efforts to keep operational costs down as low as possible, it will increase operational costs (Surtikanti, 2021). The high operating costs will make profits fall, so if the value of operating costs is low, profits will rise. So to obtain high profits, it is necessary to pay attention to the costs incurred and control them effectively. Besides that, the Company can achieve profits according to its wants.

Subhan DS (2018) research results show that operational costs significantly affect net income. Effendi (2020) stated that operational costs consisting of interest, general administration costs, and labor costs affect net income. Mahdi and Khaddafi (2020) found that operational expenses greatly impact net income. Sales volume and an increase in the firm's net profit are closely related, and rising sales volume brings the corporation astronomical profits. Surtikanti S. et al. (2023) research results show that trade payable significantly and adversely impacts net income. Anggadini (2023) states that current debt and non-current debt have an important and favorable impact on net income. Simon et.al (2020) found that changes in both short-term and long-term debt significantly impact variations in net income.

Therefore, this research was conducted because it has differences with previous research which is used as a new thing in this research, namely the indicators studied from the variable of accounts payable. This indicator consists of debt levels-both short and long-term to assess the effect of net income. This research uses multiple regression analysis. Furthermore, in providing an overview and testing the acceptance or rejection of the hypothesis, using a descriptive and verification analysis approach.

## LITERATURE REVIEW

### Net Income

Net profit or often called net income is the income of a business or organization that has been deducted by the cost of goods sold, expenses, amortization, depreciation, taxes and interest (Surtikanti S, et.al, 2022)

Companies have three main objectives in obtaining profits, that is:

- 1) Sources of funds for reserve funds to meet the Company's investment, development and emergency fund needs.
- 2) The source of funds in paying off debt belongs to the Company.
- 3) Source of funds for operational costs and raw materials.

The main concept used in calculating net profit is gross profit minus operating expenses. In calculating the profit value, we must know several elements that must be known, namely gross profit, operating expenses, other income, and cost of goods sold. Gross profit is obtained by deducting revenue from the overall cost of goods sold. Net sales are accumulated by deducting gross sales results with freight costs, selling costs, and sales discounts. (Simon, 2020)

### Operating Expenses

Operating expenses (OPEX) or operational costs are costs that contribute directly to the purchase and production of goods and services. Because of this, these costs are often listed under liabilities (selling expenses) on the balance sheet. Operational costs are an unavoidable component in a business or Company. Therefore, these costs must be calculated carefully and as minimal as possible when a company wants to formulate costs (Surtikanti, 2021; Santoso et.al, 2015).

The way to calculate a company's operating costs is as follows:

$$\text{Operational Costs} = \text{Production Costs} + \text{Expenditures (Operational) Costs}$$

### Sales Volume

The number of units sold during a reporting period is referred to as sales volume. Investors look at this figure to see if a company is expanding or contracting. A company's sales volume can be tracked at the product, product line, customer, subsidiary, or sales region level. This information could be used to change the investments made in any of these areas. (Surtikanti S et al., 2021)

In this case, the income statement shows a close relationship between sales volume and an increase in the Company's net profit, because profit will arise if product sales

exceed costs incurred. The main factor influencing profit size is revenue, which can be obtained from the sale of the Company's merchandise. Sales volume is one way to examine sales developments from a store or sales area so that further production planning is calculated. In addition, having sales volume can be useful for setting appropriate targets and sufficient to meet market needs so product supplies remain safe. (Anngadini, 2023)

This sales volume is very beneficial for the field team of a business. That way, they can make better business decisions and can analyze sales performance at stores or points of sale. After knowing each store's sales volume, targets must be determined in accordance with sales capabilities and, of course, rationale. As a result, the monthly target can be met, and if the sales exceed the target, it can be a bonus for the sales team and the Company itself.

Calculating sales volume is quite easy. However, there is a difference between gross sales volume and net sales volume. Gross sales volume includes only the total sales amount. While net sales volume also includes sales returns, gifts, etc. In essence, total units sold is referred to as the sales volume the Company has sold in the reporting/accounting period in real terms.

**Account Payable**

Liabilities (payable) arise from past transactions or events. For example, purchasing goods or using services creates trade payables (unless paid in advance or upon delivery) and receiving a bank loan creates an obligation (debt) to repay the loan

(Wahyuni, 2021) Adding The purpose of both short-term and long-term debt as well as own capital is expansion, namely the expansion of business operations such as manufacturing and marketing in order to maximize profit. Increased spending with debt and own capital can result in higher production and marketing activities (expansion), which can enhance earnings.

**METHODOLOGY**

This study uses quantitative approaches for descriptors and verification. This study's data came from secondary sources. The information was gathered from the financial statements of the manufacturing companies in the mining subsector that were listed on the Indonesia Stock Exchange between 2018 and 2022. 100 financial statements of Manufacturing Firms in the Mining Sub-Sector that are registered on the Indonesia Stock Exchange served as the study's population. Period 2018-2022 consists of balance sheets and income statements; how many samples were used in this research? So 35 Financial Statements served as the sample size for this investigation of Mining Companies in the period 2018 to 2022, which came from 7 company units. This study used logistic regression to examine the operational cost, sales volume and trade payable to net income.

**RESULTS AND DISCUSSION**

**Results**

The computation of the multiple linear regression coefficients using SPSS software version 16.0 yielded the following findings.

**Table 1.** The Coefficient of Multiple Linear Regression

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	779225,441	233760,884		3,333	,002
	BO	-,637	,180	-,466	-3,547	,001
	VP	,102	,009	,767	11,587	,000
	HU	,036	,016	,254	2,288	,029

a. Dependent Variable: LB

Source: Data processing results using the SPSS 16.0 program

Table 1 shows multiple linear regression that explains the correlation between operation costs and net income between operation costs and net income if the variable operating cost is considered constant, the following formula is used:

$$Y = a + b X_1 + c X_2 + d X_3 + k$$

$$Y = 779225,441 - 0,637 X_1 + 0,102 X_2 + 0,036 X_3$$

To calculate the correlation between operating expenses and net income (if the variable Operating Costs) is considered constant, the following calculations are used:

**Table 2.** Correlation Coefficient of Operating Costs and Net Profit

Correlations				
Control Variables			BO	LB
VP & HU	BO	Correlation	1,000	-,537
		Significance (2-tailed)	.	,001
		Df	0	31
	LB	Correlation	-,537	1,000
		Significance (2-tailed)	,001	.
		Df	31	0

Source: Data processing results using the SPSS 16.0 program

Based on Table 2 of output results from the data processing above, the value of the correlation coefficient for Operating Costs with a Net Profit of -0.573 was obtained. The result was reflected in the range from 0.41 to 0.60,

indicating a moderately positive correlation between operating costs and net profit.

If the variable Sales Volume is considered constant, the following is used for the correlation between Sales and Net Profit.

**Table 3:** Correlation Coefficient of Sales Volume to Net Profit

Correlations				
Control Variables			LB	VP
HU & BO	LB	Correlation	1,000	,901
		Significance (2-tailed)	.	,000
		Df	0	31
	VP	Correlation	,901	1,000
		Significance (2-tailed)	,000	.
		Df	31	0

Source: Data processing results using the SPSS 16.0 program

Based on Table 3 of the output is that the data processing produced, the value of the correlation coefficient for Sales Volume to Net Profit of 0.901 was obtained, where the result was included in the interval score between 0.80 – 1.00 that there is a very strong relationship

between Sales Volume and Net Profit.

The correlation between Sales Volume and Net Profit, if the Accounts Payable variable is considered constant, the calculation as shown in Table 4 is used:

**Table 4:** Coefficient of Correlation of Accounts Payable to Net Profit

Correlations				
Control Variables			LB	HU
BO & VP	LB	Correlation	1,000	,380
		Significance (2-tailed)	.	,029
		Df	0	31
	HU	Correlation	,380	1,000
		Significance (2-tailed)	,029	.
		Df	31	0

Source: Data processing results using the SPSS 16.0 program

Based on Table 4 of output results from the data processing above, the value of the correlation coefficient for Sales Volume to Net Profit of 0.380 was obtained, which is included in the interval score between 0.21 – 0.40 that there is a low relationship between Sales

Volume and Net Profit.

The greater the value of determination, it indicates that the resulting regression equation is good for estimating the dependent variable. The following are the results of the analysis of the coefficient of determination in this study.

**Table 5:** Coefficient of Determination

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,972 <sup>a</sup>	,945	,940	376371,971
a. Predictors: (Constant), HU, VP, BO				
b. Dependent Variable: LB				

Source: Data processing results using the SPSS 16.0 program

The output of SPSS in Table 5 means that Operating Costs, Sales Volume, and Accounts Payable affect 0.940 or 94% on Net Profit. But the remaining 6% of Net Profit can be explained

by other variables not studied by the author, such as capital, production costs, income, total assets, and others.

**Table 6:** The results of the hypothesis test were obtained as follows

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	779225,441	233760,884		3,333	,002
	BO	-,637	,180	-,466	-3,547	,001
	VP	,102	,009	,767	11,587	,000
	HU	,036	,016	,254	2,288	,029
a. Dependent Variable: LB						

Source: Data processing results using the SPSS 16.0 program

Based on Table 6 above, it can be known that the calculated value for the Operational Cost variable is -3,547 This value will be compared with the  $t_{table}$  value in the distribution  $t_{table}$  with  $\alpha = 0.05$ ,  $df = n-k = 35-2$ , a  $t_{table}$  value of  $\pm 2.03693$  is obtained. It can be seen that  $t_{calculation}$  for  $X_1$  is  $-3,547 < \text{the } t_{table} \text{ value of } 2.03693$ , then  $H_0$  is rejected, meaning that the variable Operating Costs significantly affect Net Profit.  $t_{calculation}$  for  $X_2$  is  $11,587 > \text{the } t_{table} \text{ value of } 2.03693$ , then  $H_0$  is rejected, meaning that the variable Sales Volume significantly affects Net Profit.  $t_{calculation}$  for  $X_3$  is  $2,288 > \text{the } t_{table} \text{ value of } 2.03693$ , then  $H_0$  is rejected, meaning that the Accounts Payable variable significantly affects Net profit.

**Discussion**

**Effect of Operating Costs Against Net Income**

The results of testing the hypothesis mean rejecting  $H_0$  Operating Costs effect on Net Income. The coefficient of determination shows that the considerable influence of Operating Costs to Net Income of 37.8% and the remaining 62.2% is influenced by variables not examined in this study as Production Costs, Other Current Assets, dividends, and others. The results of testing the correlation coefficient included a strong interval between Operating Costs and Net Income and tested positive coefficient, which means unidirectional. In other words, it can be said that the operational cost is directly in line with the Net Income. Where if Operating Costs Net Profit increases will increase.

The bank's management performs better when operating costs are reduced because it makes greater use of the resources already available to the Company. (Subhan DS ,et.al, 2018]. So the magnitude of the Operational Costs affecting a company's performance, the performance seen from how much the Company can obtain the Net Income. It challenges the previously mentioned phenomenon that occurred in Vale Indonesia Tbk where the Company experienced a decline in net profit when the ratio of Operating Costs decreased. This result indicates that other factors affect the level of Net Profit over. The corporation should put more pressure on its operating costs to increase its net income.

According to research conducted by Surtikanti S et.al (2019), the corporation can boost net profits if it can lower operating expenses. The opposite is if wasteful expenses (such as overusing office equipment) will negatively impact net profit. If the Company runs its operations in a manner that efficiently reduces operational costs from the Company's revenue, it will certainly increase and offset increased profitability. This is according to the studies done by Surtikanti S, et.al (2023), which declare the Operational Costs as an important result on Net Income. So if the operational cost increases, net profit will decline. On net income, the operational cost variable has a large adverse impact. (Suzan & Siallagan, 2022; Padang et al., 2022).

### Effect of Volume Sales Against Net Income

Results of testing the hypothesis that means rejecting  $H_0$  Sales Volume effect on Net Income. The coefficient of determination shows that the sales volume is large enough impact to Net Income of 73.5% and the remaining 26.7% is influenced by variables not examined in this study as Production Costs, Other Current Assets, dividends and others. Results of testing the correlation coefficient included in a strong interval between Sales Volume and Net Income and the results tested positive coefficient, which means unidirectional. In other words, it can be said that the volume of sales compared to Net Income in the same direction. Where if sales volume increases, net profit will increase.

The close relationship of the volume of sales to increase it's Since the profit will only materialize if the product is sold for more than

the costs incurred, net income in this scenario can be seen in the Company's income statement. Revenue and income from sales are the primary factors influencing the profit size of merchandise Companies (Surtikanti S, et.al, 2020). So there is an influence between volume Sales to Net Income firms listed on the Indonesia Stock Exchange that are in the mining industry. It challenges the previously mentioned phenomenon in Vale Indonesia Tbk where the Company experienced a decline in net profit when the sales volume increased. This result indicates that other factors affect the level of Net Profit over. Companies should further enhance company sales to increase net profits.

Research conducted by Anggadini (2022) states Sales Volume has a significant effect on the net profit, and the company management's ability to generate total sales of influences on company profits. The Company's profit is one of the key components of Net Income, as profit is the underlying component of Net Income; indirectly if the total sales generated increase profits also increase so that the Company will improve its financial performance. This concurs with the findings of studies by Santosa (2021), which declares the volume of sales a significant effect on Net Income.

### Accounts Payable's Impact on Net Income

The results of the testing hypothesis reject  $H_0$ , which means the Effect of Account Payables on Net Income. The coefficient of determination shows that the Accounts Payable considerable influence on Net Income of 16.8% of the total is influenced by factors not addressed in this study. In contrast, the remaining 83.2% is as Production Costs, Other Current Assets, dividends and others. Results of testing the coefficient of correlation included in a decisive interval between Operating Costs and Net Income and the results tested a positive coefficient, which means it is unidirectional. In other words, it can be said that it is directly in line with the Accounts Payable Net Income. Where if Payables increase, the net profit will increase.

For the objective of expansion, increasing short-term debt and long-term and equity capital is necessary, i.e. expand the Company's activities, expanding production, and expanding marketing campaigns aimed at securing

maximum profit. Due to increased investment, there has been an expansion in both manufacturing and marketing operations by debt and equity capital to maximize profits (Surtikanti S, et.al, 2019). So the greater the Accounts Payable, the greater the Company's ability to obtain net profit will be greater. It challenges the previously mentioned phenomenon in Vale Indonesia Tbk where the Company experienced a decrease in Net Income Payable when the Company increased. This result indicates that other factors affect the level of Net Profit over.

Research conducted by Sari (2022) showed Changes in capital stock, long-term debt, short-term debt, retained earnings, and depreciation significantly affect net income changes. This concurs with the findings of studies by Surtikanti S.et.al (2021), the current liability has a significant effect on operating profit, non-current debt, and a significant effect on operating profit. Taken together, the current liability and non-current debt substantially impact operating profit.

### CONCLUSION

The conclusion in this study is that the Company's performance is seen from how much the capability of the Company to make a profit. One component of the business's net profit is profit, so indirectly if total sales increase, the income generated by the Company will also increase so that it will improve the Company's financial performance. The inclusion of both short-term and long-term debt as well as own capital is designed to increase production and marketing efforts in order to maximize revenue.

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