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THE INFLUENCE OF FINANCIAL RATIOS TOWARDS PROFIT GROWTH (AN EMPIRICAL STUDY ON MINING COMPANIES IN INDONESIA STOCK EXCHANGE 2016-2019)

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Keywords: Debt to Equity Ratio, Total Assets Turnover, Net Profit Margin, Current Ratio and profit growth

ABSTRACT

This research aims to examine and analyze the influence of financial ratios towards profit growth. The independent variable discussed in this research was financial ratios that consist of Debt to Equity Ratio (DER), Total Assets Turnover (TATO), Net Profit Margin (NPM), and Current Ratio (CR), while the dependent variable was the profit growth on mining companies listed on Indonesia Stock Exchange for the period of 2016-2019. The data examined were secondary data obtained from the annual financial statements of each mining company through the official website of Indonesia Stock Exchange. The data analysis was conducted through a panel data analysis. The results showed that Total Asset Turnover, Net Profit Margin and Debt to Equity Ratio partially performed no significant influence towards profit growth, while the Current Ratio performed significant influence toward it.

Keywords: Debt to Equity Ratio, Total Assets Turnover, Net Profit Margin, Current Ratio and profit growth

1. INTRODUCTION

In this modern era of globalization, business development has performed a big impact on the escalation of economic growth in one country. Since there is a competition between companies, being ingenious is the solution for each company to carry out business persistence in the future. The purpose of the company establishment is to obtain large profits or a high rate of profit and the prosper of company owners, including investors. (Tisna & Agustami 2016).

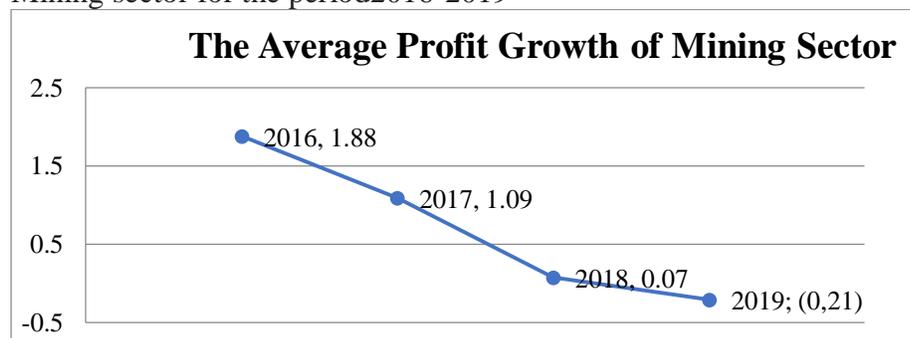
A financial statement is an information provided by the company regarding the financial condition and the operating results of the company in a certain period (Harahap, 2011). Moreover, financial statement can be used by investors as an investment foundation. Investors will be prefer to invest in the companies with profit growth increasing each year. The amount of profit obtained depends on the performance management system in the company.

The profit growth is a magnitude of each year owned by a company. Profit could have either increased in the current year or decreased in the following year. In addition, profit can be claimed to develop if it increases annually. Therefore, an analysis of financial statements is required to assess the company's achievement. One of the most used analysis is financial ratio analysis. It is a financial statement to determine the accomplished level of profitability (profits) of a company and assess either the level of the company risk or value (Hanafi & Halim, 2016).

The ratios used to assess the profit growth in this research were Debt to Equity Ratio, Total Assets Turnover, Net Profit Margin, and Current Ratio.

Furthermore, this research used the mining sector as a sample since it follows a significant profit decrease in a row in the mining sector for the period of 2016-2019. The profit decrease can cause either investors or potential investors to reconsider their decision to invest in the company due to the potential impact on the income received by the investors in the future. Therefore, it will affect the upcoming investment decision of investors. The profit decrease can be seen in figure 1.1 the average profit growth.

Figure 1.1
Profit growth
Mining sector for the period 2016-2019



Source : www.idx.com (data processed, 2020)

Based on Figure 1, the average profit during the bonding period shows that 2016 was in the amount of 1.88 experiencing a profit decrease of about 0.79 in 2017 to 1,09. In 2018, the average profit of the company was in the amount of 0,07, experiencing a highly significant decrease of 1,02, while in 2019 was in the negative range of -0,21.

Factors that cause profit growth include the age of a company, the size of a company, degree of leverage, level of sales, and changes in the previous profit. (Hanafi & Halim, 2016) cited by (Rantika & Anindhyta Budiarti, 2016).

Financial ratio analysis is used by investors to assess the company's financial condition in the past, present and future. Additionally, it is applied to see either the company shows any progress or setbacks regarding its profit growth. If the profit of the company starts to decrease, the manager as the person in charge should immediately conduct an evaluation to increase the profit growth in the future.

This research refers to the one conducted by (Andriyani, 2015) entitled "Pengaruh Rasio Keuangan terhadap Pertumbuhan laba pada perusahaan Pertambangan yang terdaftar di BEI". Simultaneously, the profit growth was influenced by the Current Ratio, Debt to Asset Ratio, Total Asset Turnover, and Return on Asset, while partially only Return on Assets indicated a significant influence on it.

Another research conducted by (Estining Hadi, 2018) showed that only Debt to Asset Ratio performed a significant influence towards profit growth, while Net Profit Margin and Current Ratio indicated the opposite result. In contrast to the research from (Mahaputra, 2012), the results showed a significant influence between Current Ratio, Debt to Asset Ratio, Total Asset Turnover, dan Net Profit Margin towards profit growth.

2. LITERATURE REVIEW

Total Asset Turnover and Profit Growth

According to (Hantono, 2018: 13-14), the activity ratio is the ratio that measures the effectiveness of company's management in operating their business. Therefore, the activity ratio used in this research is Total Assets Turnover. (Hantono, 2018: 14) stated that Total Assets Turnover is an asset turnover that shows the capability of management to administer the total investments (assets) to generate sales. It is generally claimed that the larger the ratio, the better the result since it is indicated that management can utilize each rupiah value in assets to generate sales and subsequently generate profits.

Furthermore, according to Suyono & Marina, (2020) and Rantika & Anindhyta Budiarti, (2016), Total Asset Turnover resulted in a positively significant influence profit growth, while Andriyani (2015) claimed that it partially performed no significant influence toward it.

H_1 : *Total Assets Turnover* (TATO) has an influence towards profit growth

Net Profit Margin and Profit Growth

The profitability ratio is that demonstrates the capability of a company to make a profit. The profitability used in this research is the net profit margin. It demonstrates either the level of net profit (after deducted by some expenses) obtained from the business or the extent to which the company manages its business (Hantono, 2018:11). Moreover, net income has become a crucial standard for investors as it is closely related to dividends. The higher the value of Net Profit Margin, the better it will be for the company (Zulfikar, 2016: 154).

According to the previous research conducted by Wahyuni, Sri Ayem, &Suyanto, (2017) and Rantika&AnindhytaBudiarti, (2016), net profit margin (NPM) performed a positively significant influence towards profit growth, while Ravasadewa& Siti RokhmiFuadati (2018) stated the opposite result.

H₂: *Net Profit Margin* (NPM) has an influence towards profit growth

Debt to Equity Ration and Profit Growth

Solvency ratio is used to measure the ratio between owner's funds and loan funds. Therefore, the solvency ratio used in this research is the debt to equity ratio. It's a ratio that demonstrates the extent to which equity of the company guarantees the entire debt. In this point, the ratio is also referred to as the comparison between external funds and internal funds (Hantono, 2018:12). The higher the Debt to Equity Ratio, the lower the level of funding provided by investors. Meanwhile, if it is seen from the ability to pay obligations, the lower the Debt to Equity Ratio, the better it is for the company to pay obligations (Kasmir, 2015:158).

Since the company has debts, the obligations to pay interest and loan principal should be accomplished continuously following the limitations of debt; hence if the company had a large debt, it would have an obligation to pay debt which made the resulting profit would not be optimal.

In previous research conducted by Rantika&AnindhytaBudiarti, (2016), Debt to Equity Ratio (DER) performed a significant influence towards profit growth. Meanwhile, Suyono& Marina (2020) and Wahyuni, Sri Ayem, &Suyanto, (2017) claimed the opposite result.

H₃: *Debt to EquityRatio* (DER) has an influence towards profit growth

Current Ratio and Profit Growth

According to Hartono, (2018: 9), Ratio that describes the company's ability to pay off its obligations or short-term debt at a liquidity ratio. The liquidity ratio used in this research is Current Ratio. It indicates a number of current liabilities in which the payment is guaranteed by current assets. This ratio also shows the company's ability to pay it's short-term debts (liabilities) that are due. Moreover, the influence of the current ratio towards profit growth is when the company has an ability to cover its current liabilities efficiently as the company can effectively manage its current assets; hence it will influence the company's profit growth.

Based on previous research conducted by Suyono& Marina, (2020) and Rantika&AnindhytaBudiarti (2016), the Current Ratio (CR) had a significant

influence towards profit growth, while Andriyani, (2015) claimed that it partially did not show any significant influence towards profit growth.

H4: *Current Ratio* (CR) has an influence towards profit growth

3. METHODOLOGY

The method applied in this research is descriptive method. This method aims to explain the structural relationship of some concepts and elucidate the relationship between variables (Ikhsan, 2008). Furthermore, data used in this research was secondary data in the form of annual financial statements derived from each mining company reported on Indonesia Stock Exchange (IDX) for the period 2016-2019. Additionally, the data can be accessed through the official website www.idx.co.id. In this point, the samples used were 9 mining companies in the 4-year period starting from 2016-2019, bringing the total sample to 36.

Classic assumption test used in analyzing data including data normality test, multicollinearity test, heteroskedasticity test, autocorrelation test, t test and F test

Table 3.1 Variable Measurement

Research Variable	Concept	Indicator
Profit Growth (Y)	Profit growth is a ratio used to discern a company performance that increases in net profit compared to the previous year. (Harahap, 2011)	$P = \frac{Y_t - Y_{t-1}}{Y_{t-1}}$
CR	CR is a ratio used to show the ability of a company to pay its short-term liabilities by using current assets. (Hanafi & Abdul, 2009)	$CR = \frac{\text{current assets}}{\text{current liabilities}}$
DER	DER is a ratio used to measure how many short-term liabilities owned by a company compared to total assets owned. (Harahap, 2011)	$DER = \frac{\text{total liabilities}}{\text{total equity}}$
TATO	TATO is a ratio used to measure how effective a company perform its various activities. (Van Horne & John M, 2005)	$TATO = \frac{\text{net sales}}{\text{total assets}}$
NPM	NPM is a ratio used to discern how big the ratio between net profit obtained by the firm in every sales. (Darsono & Ashari, 2005)	$NPM = \frac{\text{net profit}}{\text{sales}}$

4. RESULTS AND DISCUSSION

4.1 Results

The results of the regression model validation using the Chow and Hausman test showed that the Fixed Effects Model was the most suitable model for this research.

Tabel 4.1 Chow Test

Effects Test	Statistic	d.f	Prob.
Cross-section F	9,881311	(-8,23)	0,0000
Cross-section Chi-Square	53,639046	8	0,0000

If the calculated F value is greater (>) than the F table, it means that the selected model is common effects. By contrast, if the F count is smaller (<) than the F table then H1 is accepted, it means that the selected model is fixed effects (Widarjono, 2009). Prob F indicates 0,0000 less than <0.05 which means; hence what is appropriate to use is the Fixed Effects Model.

Tabel. 4.2 Hausman Test

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f	Prob.
Cross-section random	18,039733	4	0,0012

If the result of F count is greater (>) than F table, it means that the selected model is random effects. By contrast, if the F count is smaller (<) than the F table then H1 is accepted, it means that the selected model is fixed effects. Prob F shows 0.0012 less than <0.05, which H1 is accepted. Therefore, the suitable model used is Fixed Effects Model.

Multicollinearity test results indicate that there are no multicollinearity problems between independent variables, which is the entire independent variables in the regression of this research have been mutually independent.

Tabel 4.3 Multicollinearity Results

CORRELATION				
	TATO	NPM	DER	CR
TATO	1,000000	-0,050297	-0,092993	-0,064114
NPM	-0,050297	1,000000	-0,554514	0,530148
DER	-0,092993	-0,554514	1,000000	-0,652240
CR	-0,064114	0,530148	-0,652240	1,000000

Based on the above Output of Multicollinearity Test, it shows that the correlation between independent variables is less than <0.08. Therefore, there is no Multicollinearity found in the data. In accordance with this result, one classical assumption test has been contented.

Tabel 4. 4. Heteroscedasticity Test

Variabel	Coefficient	Std Error	T statistic	Prob
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C	1.826274	1,499667	1,217786	0,2357
TATO	-1,369888	0,912185	-1,501765	0,1468
NPM	-2,342693	3,078750	-0,760923	0,4544
DER	0,304054	0,786555	0,386564	0,7026
CR	0,319159	0,330057	0,966981	0,3436

The probability value shows, the amount of Total Asset Turnover is 0,1468, Net Profit Margin 0,4544, Debt to Equity Ratio 0,7026, and Current Ratio 0,3436. This value indicates greater (>) than the alpha value 0,05. It means that there is no heteroscedasticity occurred in each independent variable as well as free from heteroscedasticity problems.

The Durbin-Watson Stat value shows a value of 1,860614. The value is proposed to be compared using the Durbin-Watson table with a significance of 5%, with n= 36 and k=4 obtained DL = 1,2358, DU = 1,7245. The result is DW > DU, 1,860614 > 1,7245; hence there is no positive autocorrelation which causes no autocorrelation found in the regression analysis.

4.2 Regression Model

Tabel 4.5 Panel Data Regression Test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-4,805493	3,405185	-1,411228	0,1716
TATO	-1,967686	2,071233	-0,950007	0,3520
NPM	3,408208	6,990695	0,487535	0,6305
DER	-0,860215	1,785973	-0,481650	0,6346
CR	4,340367	0,749437	5,791501	0,0000
R-squared		0,832577		
Adjusted R-squared		0,745225		
Log likelihood		-53,970600		
F-statistic		9,531365		
Prob (F-statistic)		0,000003		

Regression model, the equation produced are:

$$\text{Profit Growth} = -4,805493 - 1,967686 \text{ TATO} + 3,408208 \text{ NPM} - 0,860215 \text{ DER} + 4,340367 \text{ CR}$$

The regression model illustrates that if the independent variable is 0 (zero), then the profit growth is -4,805493.

Adjusted R Square value is the R Square value that has been corrected by the standard error value. The adjusted r square value was 0,745225. Meanwhile, the standard value of the regression model 1,355618 is indicated by the label “S.E of regression”. This standard error value is smaller than the standard deviation value of the response variable indicated by the label “S.D. dependent var” that is 2,685711 in which it can be interpreted that a valid regression model equals to a predictor model. The coefficient of determination test shows that the ability of total asset turnover, debt equity ratio, net profit margin and current ratio in interpreting changes of profit growth is 74,52%, while the rest 25,48% is interpreted by other factors which is not applied in this research.

Table 4.6. Hypothesis Test Results (t-test)

Variable	Prob	Results
TATO	0,3520	H ₁ is rejected, there is no influence between TATO and profit growth.
NPM	0,6305	H ₂ is rejected, there is no influence between NPM and profit growth.
DER	0,6346	H ₃ is rejected, there is no influence between DER and profit growth.
CR	0,0000	H ₄ is accepted, there is an influence between CR and profit growth

The F test results reflect a Prob F-statistic value of 0,000003 less than <0.05 showing that CR has an influence towards profit growth. This means, the entire Total Asset Turnover, Net Profit Margin, Debt to Equity Ratio, and Current Ratio perform a significant influence towards profit growth.

4.3 Discussion

The above results of the research show that the Total Asset Turnover variable has a prob value $0,3520 > 0,05$. In accordance with the provisions of decision-making, Total Assets Turnover partially performs no significant influence towards profit growth in mining sector companies listed on IDX for the period 2016-2019. Therefore, by having a coefficient of -1,967686, it can be inferred that any increase in TATO of 1% can cause a decrease towards profit growth of 1,967686%. The results of this research are consistently based on (Andriyani, 2015) stating that Total Asset Turnover partially did not perform any significant influence towards profit growth.

Variable Net Profit Margin itself has a prob value. $0.6305 > 0.05$. This means, Net Profit Margin partially performs no significant influence on profit growth. In accordance with the coefficient value of 3.408208, it can be inferred that each increase in Net Profit Margin of 1% can lead to an increase in profit growth of 3.408208%. The results of this study are consistently based on Ravasadewa & Siti Rokhmi Fuadati (2018) stating that Net Profit Margin performed no influence towards profit growth.

Debt to Equity Ratio measures the extent to which the company's assets are funded by using both short-term and long-term debt. If the firm's assets are

mostly financed by debt rather than equity, it can be implied that the company will be burdened by fixed costs in the form of interest and the additional debt used by the company to pay off its obligations; hence it causes the profit decrease. Based on the regression equation, it is acknowledged that the influence of Debt to Equity Ratio towards profit growth is negative - 0.860215. This means, every 1% increase in Debt to Equity Ratio, profit growth will decrease by 0.860215%. Thus, there is a negative affect between Debt to Equity Ratio with profit growth. Prob DER value is $0.6346 > 0.05$, meaning that Debt to Equity Ratio partially performs no significant influence towards profit growth, as well as research conducted by (Suyono & Marina, 2020) and (Wahyuni, Sri Ayem, & Suyanto, 2017).

Current ratio can have a positive affect towards profit growth, since the company's current ratio is able to guarantee payment of short-term obligations on the due date. An increase in Current Ratio means that the company's profit growth has increased. Prob value owned by Current Ratio is $0.0000 < 0.05$, meaning that Current Ratio partially performs a significant influence towards profit growth. Based on the regression equation, it is acknowledged that the influence of the current ratio on profit growth is 4.340367. This means, once the Current Ratio increases by 1%, the profit growth will increase by 4, 40367% with assumption of ceteris paribus (other factors are constant). Thus, it can be inferred that there is a positive influence between Current Ratio and profit growth, similar to previous research conducted by (Suyono & Marina, Analysis of The Effects of Financial Ratios on Profit Growth, 2020) and (Rantika & Budiarti, 2016).

5. CONCLUSION

Based on the above discussion, the results of the descriptive and statistic test obtained are Total Asset Turnover, Net Profit Margin, and Debt to Equity Ratio which performs no influence towards profit growth. Meanwhile, the Current Ratio can perform a positive influence towards profit growth.

However, the research is limited to the number of observation periods applied in four years along with the number of variables studied which is limited to Total Asset Turnover, Net Profit Margin, Debt to Equity Ratio and Current Ratio. Therefore, for the next research is expected to add the number of observation periods, as well as other variables that can affect the profit growth.

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