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# THE EFFECT OF FINANCIAL RATIO FACTORS ON THE PERCENTAGE OF INCOME INCREASING OF AUTOMOTIVE COMPANIES IN INDONESIA

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***ABSTRACT***

*Growth profit is a ratio shown by the addition of the company's net profit every year. An increase in the ratio of growth profit will make the company's performance better. The purpose of this study in order to analyze the effect of financial ratio factors shown by Current Ratio, Total Assets Turnover, Net Profit Margin and Return On Assets to the percentage increase in profits of automotive and component sub sector companies. The sampling method using purposive sampling so that 8 companies were selected. The analysis technique is by applying the multiple regression model, coefficient of determination, F test and t test. Based on the proof of the results of this experiment, it is known that all independent variables simultaneously have a significant influence on the volatility of the company's profit increase. Likewise partially, each independent variable has a positive influence on the rate of increase in earnings. The adjusted R square value of 88% indicates that the rate of increase in profit can be explained by independent variables: Current Ratio, Total Assets Turnover, Net Profit Margin and Return On Assets, while the remaining 12% is explained by other variables outside this study.*

***Keywords:*** *Growth Profit, Current Ratio, Total Asset Turnover, Net Profit Margin, Asset Return*

## INTRODUCTION

Various types of business activities will always expect an increase in smooth and good continuous growth in order to generate a return on every fund that has been invested. Measures of success of business activities are reflected in the company's financial statement information which states how large the portion of success and failure for the company in carrying out its routine business operations. All matters relating to the company's operational activities as well as financial conditions can be demonstrated through the projected summary of financial statements as stated by Brigham and Enhardt (2015). The various information contained in the financial accounting document is very important for business people and investors to take the right steps and decisions. Every investor will invest their funds in a company that is predicted to produce a high rate of return (high return). The company's management is more focused on the increase in profits which is implemented by the growth of assets in one period as a result of productive activities. Asset growth in each company will show a good financial projection and is useful for increasing the value of the company, but not all companies are able to maintain even to increase profits every year. This will certainly be influenced by the development of several factors.

The automotive sub-sector and components are an inseparable part of the needs and dynamics of national economic growth. Along with the increasingly high level of community needs in the field of motor vehicle equipment and its components, the automotive world continues to experience intense competition that creates a great pretension to

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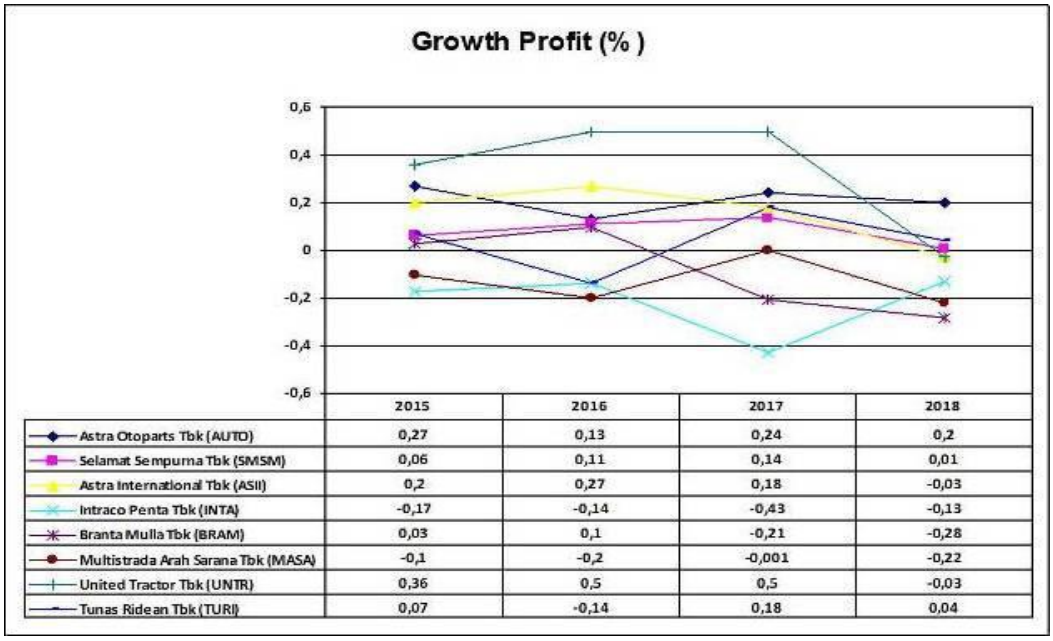
find out the level of profit growth of the company over several periods of time. In order to predict the rate of increase in corporate profits in this sector, several factors are used as benchmarks for calculation using the financial ratio approach, including: Current Assets, Total Assets Turnover, Net Profit Margin, and Return On Assets. Of the eight automotive companies that the researchers observed, it turns out that there are only two companies that have fairly stable earnings growth even though there is still a positive average range; namely: astra otoparts company and perfect congratulations. While other companies were quite volatile and showed an average negative percentage value. The following graphvolatility of the percentage of earnings in the automotive sub-sector and components during the study period:




| | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|
| Astra Otoparts Tbk (AUTO) | 0,27 | 0,13 | 0,24 | 0,2 |
| Selamat Sempurna Tbk (SMSM) | 0,06 | 0,11 | 0,14 | 0,01 |
| Astra International Tbk (ASII) | 0,2 | 0,27 | 0,18 | -0,03 |
| Intraco Penta Tbk (INTA) | -0,17 | -0,14 | -0,43 | -0,13 |
| Branta Mulia Tbk (BRAM) | 0,03 | 0,1 | -0,21 | -0,28 |
| Multistrada Arah Sarana Tbk (MASA) | -0,1 | -0,2 | -0,001 | -0,22 |
| United Tractor Tbk (UNTR) | 0,36 | 0,5 | 0,5 | -0,03 |
| Tunas Ridean Tbk (TURI) | 0,07 | -0,14 | 0,18 | 0,04 |

Source: idx.go.id (data processed)

**Figure 1. Growth of Profit**

Based on monitoring of graph 1.1 shows that the growth rate of percentage of profit of automotive companies has quite high volatility. This is consistent with the trend of line movements that tend to fluctuate each year. The astra otoparts and congratulations company has a positive percentage of profit growth even though it has declined from 24% to 1%. While international astra companies experienced turmoil in profit decline from 27% to reach -3%. Then the Intraco company experienced a turmoil in a dramatic profit decline from -14% to -43%. Branta Mulia's company is facing a relatively high profit decline from the range of 10% in 2016 to reach -28%. Multistrada companies fluctuate the rate of decline and increase in profits from the range of -20% to reach -1% then -22%. United tractor companies experienced significant volatility in profit decline from the range of 50% to -3%. Meanwhile, for budding companies, the decline and increase in profit is relatively high, fluctuating each year from a range of 7% to -14%, then returning to 18%, then decreasing to around 4%.

Based on the results of observations and background exposure to problems arising from fluctuations in the increase and decrease in the level of profit percentage of the automotive and component sub sector companies, the formula in this study explains how financial ratio factors can influence the volatility of the percentage of earnings during the period 2015 to 2018 .

**LITERATURE**

Growth profit is the change in profit generated by each Integration within a certain time period (Hapsari, 2007). This increase will provide a positive value for the development of the company as well as profits for shareholders because they will receive a proportional distribution of dividends and bonuses for achieving maximum profit. The method of measuring the rate of increase in corporate profits can use elements in the financial ratios. This analysis will show measurable results and help various business activists and investors to consider the company's

financial evaluation in the past, present and future. In analyzing a company's financial statements, it requires standard and measurable techniques and can be implemented in all types of financial statements. The usual technique is to use a financial ratio approach.

Current Ratio illustrates the amount of current debt that can be covered by the value of assets by converting it into the short term. This shows that the current ratio level is higher, it will increase the opportunity for companies to settle their obligations (Horne and Wachowicz, 2009). In signal theory (signaling theory), declining profits indicate that the company's performance is allegedly not good and will give a negative signal to investors so that it will reduce interest in investing. The high current ratio factor will have a negative influence on the firm's ability to achieve it, as stated by Martono and Harjito (2008). While the liquidity ratio which is the current ratio shows a negative influence on the rate of increase in profits as stated in research by Heikal, Gaddafi, and Ummah (2014). Based on these studies, the hypothesis can be explained that: H1: The rate of increase in earnings is negatively influenced by the Current Ratio.

Total Assets Turnover illustrates the level of efficiency in using the overall value of the company's assets in order to get volume on sales. The greater the ratio of the level of asset turnover will be more efficient in the use of assets that generate sales. The same amount of assets can increase sales volume when the value of total asset turnover is increased so that higher sales will result in a percentage increase in profit (Sudana, 2011). Total assets turnover will have a positive effect on earnings growth as the conclusion of a study by Gunawan and Wahyuni (2013). Based on his research, so his hypothesis can be explained namely: H2: The rate of increase in earnings is positively influenced by Total Assets Turnover.

Net Profit Margin describes the magnitude of the percentage of net profit obtained from each sales volume. If it is stated that the greater the profit margin, it is predicted that the company's performance will be better because it is considered capable of producing high profits (Harahap, 2011). The factor of this ratio shows the large potential of the company in order to get a net profit from each sales volume. The rate of profit increase is positively influenced by the Net Profit Margin variable as stated by Sholiha (2014) in his research so that the hypothesis can be explained namely: H3: The rate of profit increase is positively influenced by the Net Profit Margin Ratio.

Return on Assets shows the profit ratio factor that is used to estimate the company's potential to get maximum profit. The sales trend cycle is the level of sales volume / distribution index of the company's sales distribution. The fluctuation of the trend of rising and falling sales volume has the right size with the company's operational sales information as stated by Dechow and Dichev (2002). Erma fitriana (2018) concluded that the variable return on assets will positively influence the rate of profit increase, so the hypothesis can be explained that: H4: The rate of profit increase is positively influenced by Return On Assets.

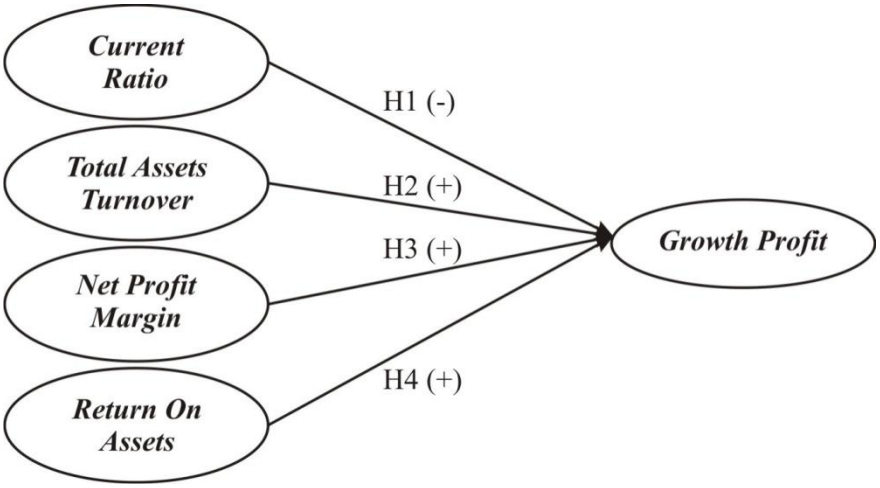



**Figure 2. Theoretical Thinking Framework**

## METHODS

The entire population involved in this study were automotive and sector sub sector companies during the period 2015 to 2018 listed on the Indonesian stock exchange. The sample selection was based on purposive sampling as determined criteria, so that only eight companies were obtained that were the center of observation of this study. The dependent variable is the rate of increase in profit can be formulated as follows (Usman, 2003):

$\Delta Yit = (Yit - Yit\text{-}1) / Yit\text{-}1$

Where: $\Delta Y_{it}$ = increase in earnings period t; $Y_{it}$ = company profit i during period t; $Y_{it-1}$ = company profit i during period t-1

While the independent variables, namely: Current Ratio (CR), Formula: CR = Current Assets / Current Debt; Total Assets Turnover (TAT), Formula: TAT = Sales / Total Assets; Net Profit Margin (NPM), Formula: NPM = Net Profit / Net Sales; Return On Assets (ROA), Formula: ROA = Net Profit / Total Assets The

Analysis of this study applies the multiple regression method (Multiple Regression Analysis) to examine the influence of factors in the financial ratio to the volatility of the percentage increase in earnings. The research model is explained as follows:

$$Y_t = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + e$$

Where: $Y_t$ = Earnings growth;
a = Constant,
b = Coefficient,
$X_1$= CR; $X_2$ = TAT; $X_3$ = NPM; $X_4$ = ROA
e =coefficient *error*

R square which is the coefficient of determination is used in estimating the magnitude of the model's ability to explain the dependent variable. The weight of theRvalue *square* smallindicates the level of ability for the independent variable in explaining the dependent variable, but if the weight of the R square value is close to 1, it means that the independent variable can explain all the things needed by the dependent variable as stated by Ghozali (2005). The F test is intended to assess the level of significance of the effect of financial ratio factors on the volatility of the percentage increase in profits of the automotive and component sub sector companies simultaneously (simultaneously). While testing t is intended to assess the level of significance of the influence of the financial ratio factors fluctuations in the percentage increase in profits of automotive sub-sectors and individual components (partial).

## RESULTS AND DISCUSSION

### Regression Analysis (Multiple Regression Analysis)

**Table 1.**

**Coefficients[a]**

| Model | | Unstandardized Coefficients | | Coefficients Standardized | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 2.033, | | | 135,243, | 810 |
| | X1, | | 352,001, | 317 | 6.449, | 001 |
| | X2, | | 132,081, | 290 | 4.378, | 000 |
| | X3, | | 212,007, | 582 | 7.776, | 000 |
| | X4, | | 620,013, | 731 | 5.073, | 000 |

a. Dependent Variable: Y

Based on Table 1. Coefficients, that the top model of multiple regression equation as shown below:

$Y = 2{,}033 + 0.352X_1\ 0{,}132X +_2 + 0{,}212X_3 + 0{,}620X_4$

Interpretation of picture regression model can be seen that the constant value of 2.033 shows that if the variable Current Ratio ($X_1$), Total Assets Turnover ($X_2$), Net Profit Margin ($X_3$), and Return On Assets ($X_4$) = 0 with no change, the rate of profit growth (Y) 2,033. Current Ratio regression coefficient values (X1) is positive 0.352 indicates that every increase of 1 unit of the Current Ratiovalue, it will raise the income growth variable (Y) equal to 0.352 units. The value of the Total Assets Turnoverregression coefficient is ($X_2$) positive 0.132, indicating that for every 1 unit increase of the Total Assets Turnover value, it will increase the profit growth variable (Y) by 0.132 unit. The value of the regression coefficient Net Profit Margin ($X_3$) marked positive 0.212 indicates that each increase of 1

unit of the value of the Net Profit Margin, it will increase the variable profit growth (Y) by 0.132 unit. The Return On Assetsregression coefficient value is ($X_4$) positive at 0.620, indicating that for every 1 unit increase in the Return On Assets value, it will increase the profit growth variable (Y) by 0.620 unit.

**Determination coefficient ( adjusted R square )**

The estimation results using the SPSS test application as shown in table 2 which shows the adjusted R square value means that the magnitude of the influence of the independent variables on the dependent variable can be explained in the equation model by 88%, while the remaining 12% can be influenced by other factors.

**Table 2.**

**Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | , 940[a] | , 883 | , 880 | , 19987 |

a. Predictors: (Constant), X4, X2, X1, X3

**The F Test**

The F test is used in estimating the influence of independent variable factors on the dependent variable together (simultaneously). The description of the results of the multiple regression analysis is known that the four factors of financial ratios together (simultaneously) have a significant influence on volatility in earnings levels. The proof is by looking at the value of F = 280.444 greater than the significance value of 0.05 as shown in table 3 below:

**Table 3.**

**ANOVA[a]**

| Model | | Sum of Squares | Df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression, | 390 | 4, | 098 | 280.442, | 000[b] |
| | Residual | 1.079 | 27 | 040 | | |
| | Total | 1,469 | 31 | | | |

a. Dependent Variable: Y
b. Predictors: (Constant), X4, X2, X1, X3

**The t Test**

The t test is intended to estimate the presence or absence of the influence of one independent variable on the dependent variable individually (partial) with no influence on other independent variables (constant). This estimation is implemented by comparing the significance value of t as shown in table 4 *sig.* t value of significance level (0.05). If the *Sig.* t < 0.05; means there is a picture that the independent variable has an influence on the dependent variable.

**Table 4.**

**Coefficients[a]**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 2.033, | | | 135,243, | 810 |
| | X1, | | 352,001, | 317 | 6.449, | 001 |
| | X2, | | 132,081, | 290 | 4.378, | 000 |
| | X3, | | 212,007, | 582 | 7.776, | 000 |
| | X4, | | 620,013, | 731 | 5.073, | 000 |

a. Dependent Variable: Y

The magnitude of the t value calculated from financial ratio factors (CR, TAT, NPM and ROA) as shown in table 4 can be explained as follows:

1. Based on the monitoring of the estimation results it is found that the Current Ratio variable regression value is 0.352. The t value is 6.449 with a significance level of 0.001. Because the value of t arithmetic < t table and the level of significance > 0.05, it can be concluded that the Current Ratio variable has a positive effect on the volatility of the rate of increase in earnings. Thus the hypothesis which states the Current Ratio variable has a negative effect on the rate of increase in profits is rejected.
2. Based on monitoring estimates, it was found that the regression value for the Total Assets Turnover variable was 0.132. The t value is 4.378 and the significance level is 0.000. Because the value of t count < t table and the level of significance > 0.05; it is concluded that the Total Assets Turnover variable has a positive effect on the volatility of earnings increases. So the hypothesis that concluded the Total Assets Turnover variable has a positive effect on the rate of increase in earnings received.
3. Based on the estimation results it is found that the regression value for the Net Profit Margin variable is 0.212. The t value is 7.776 and the significance level is 0.000. Because the value of t arithmetic < t table with a significance level > 0.05, it can be concluded that the Net Profit Margin variable has a positive influence on the volatility of earnings increases. Hypothesis conclusions on the Net Profit Margin variable which has a positive influence on the rate of increase in earnings can be accepted.
4. Based on the estimation results it is found that the regression value for the Return On Assets variable is 0.620. The t value is 5.073 and the significance level is 0.000. Because the value of t count < t table with a significance level > 0.05; it can be concluded that the Return On Assets variable has a positive influence on the volatility of earnings increases. Hypothesis conclusions on the Return On Assets variable that has a positive influence on the rate of increase in earnings can be accepted.

## CONCLUSION

Estimates of the results of research that have been conducted regarding the influence of several financial ratio factors on the percentage rate of profit increase in automotive sub-sector companies and components simultaneously (simultaneous) for all independent variables namely Current Ratio ($X_1$), Total Assets Turnover ($X_2$) , Net Profit Margin ($X_3$) and return on assets ($X_4$) have a significant influence on the volatility of the increase in earnings. The influence of the independent variable factors on the dependent variable can be explained in the 88% equation model, while the remaining 12% can be influenced by other factors. While the partial test results show that the four financial ratio factors are: Current Ratio ($X_1$), Total Assets Turnover ($X_2$), Net Profit Margin ($X_3$) and Return On Assets ($X_4$) each have a positive influence on volatility of profit increase.

Return on Assets and Net Profit Margins obtain large beta standardized coefficients of 0.731 and 0.582, respectively. This shows that the higher the rate of return on assets and corporate earnings, the higher the percentage increase in profits. Therefore, in order to increase the percentage of profit increase the company management should be able to optimally increase the level of sales volume and minimize operating expenses so as to obtain the expected profit. With an increase in large profits, investors are expected to get a positive picture of the company's performance - as a result by expecting a high return on capital invested.

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