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Determinants of Investment in The Consumer Goods Sector with Stock Prices as Intervening Variables

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Abstract

The objective of this study is to assess the impact of Current Ratio, Debt to Equity Ratio, and Total Asset Turnover on Return on Investment (RoI), while Stock Prices as intervening factors. The analysis focuses specifically on Manufacturing Companies within the Consumer Goods sector that are listed on the IDX. This research is quantitative research with a descriptive analysis approach. The data collected were analyzed with formulas from each financial ratio and then processed using multiple regression analysis and sobel tests. The results of this study indicate that CR is not significant on Stock Price, while DER is related to Stock Price with a negative effect. Finally, TATO has a significant impact on Stock Price, with a positive sign on the relationship. Stock Price, CR and TATO have positive and significant effect on ROI, while DER have negative and significant effect on ROI, CR through stock price has no effect on ROI, while DER and TATO through share price affects ROI in Manufacturing Companies in the Goods Sector Consumption listed on the IDX.

Keywords: Current ratio; Debt to Equity Ratio; Total Asset Turnover; Stock Price; Return on Investment

INTRODUCTION

Competitors in business are motivated to enhance their company performance due to the growth of the business world and the accelerating pace of economic development. Financial performance refers to the outcomes or accomplishments that the management of the firm has made in fulfilling its role of efficiently managing the company's assets over a specific time frame (Rudianto, 2013). The operational activities of a company require capital for both short-term and long-term activities. The funds are obtained from various sources, one of which is investors who expect benefits from investment in the company. Stocks are one type of investment that promises benefits for investors. One measure of a company's management performance is its stock price, if a firm's stock price

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consistently rises, then investors or potential investors conclude that the company is managing its business successfully. By examining the financial accounts, the target investor's quality of investment in a company will be evaluated.

To assess the company's financial performance, two analyses are known used are technical analysis and fundamental analysis. Technical analysis can be seen through stock price movements and history of previous stock prices while fundamental analysis is by analyzing financial statements with financial ratios. In this study, the financial ratios used to see the effectiveness of the business's financial outcomes either through stock prices or not. Current Ratio as a representation of liquidity ratios, Debt to Equity Ratio as a representation of leverage ratios, Total Assets Turnover as a representation of activity ratios, Return on Investment as a representation of profitability ratios. Through the analysis, it is expected that the shares are feasible and quality to buy. The analysis's findings can offer details with the intention of screening, diagnosing, evaluating and predicting the company's economic state. Thus, this financial statement analysis becomes very useful for management and investors. Manufacturing businesses listed on the IDX in the consumer products industry are examined in this study to determine the affect of CR, DER, and TATO on RoI, with stock prices acting as intervening factors

LITERATURE REVIEW

Current Ratio

Current ratio (CR) is comparison current assets to short-term liabilities related to operating activities (Kuswadi, 2008). A higher ratio of current assets to current liabilities indicates a better level of certainty regarding the payment of current liabilities (Subramanyam, 2011).

Debt to Equity Ratio

Debt to Equity Ratio (DER) is a ratio that quantifies the proportion of liabilities within a company's overall capital structure. This ratio is essential for calculating the business risk of the company, which rises as its liabilities increase (Sukamulja, 2017). This ratio can be used to find out the amount of funds that creditors provide with company owners. For businesses, a higher ratio of owner-provided capital to external funding is preferable as it signifies increased financial support from the owner and enhances the borrower's confidence in mitigating potential losses.

Total Asset Turnover

Total Asset Turnover (TATO) used to analyze how much asset turnover of all assets belongs by a corporation. Additionally, it provides insights into the number of sales generated per unit of currency generated (Kasmir, 2008). A higher TATO ratio signifies good assets turnover, indicating a more effective utilization of assets in obtain sales and earning profits.

Return on Investment

Return on Investment (ROI) is an economic measure that quantifies the net profit generated by the company relative to its total wealth (Husnan & Pudjiastuti, 2004). To increase the ROI, it can be done in three ways, namely by increasing sales, reducing costs or reducing operational assets.

Stock Price

The definition of shares according to Darmadji (2012), a share signifies an individual's or organization's ownership or participation in a corporation or limited liability company. The stock price is indicative of the closing price during a designated observation period and is subject to notable impact from economic and political circumstances, alongside the company's performance.

METHODS

This research using quantitative research with a descriptive analysis approach. This study's population consists of 89 consumer products manufacturing enterprises that are listed on the IDX. The research sample used purposive sampling with a total sample obtained by 32 companies. The employed methodology for data collecting entails the utilization of a documentation strategy that mostly relies on secondary data sources. The data collected were analyzed with formulas from each financial ratio and then processed using multiple regression analysis and sobel tests. The analytical tool used is the application of SPSS. Starting from the Classical Assumption Test, to Multiple Linear Tests and Sobel Test.

RESULTS AND DISCUSSION

Based on the outcomes of data processing utilizing financial ratios and SPSS, the data analysis was acquired as follows:

1. Normality Test

In the Table 1, it can be observed that the significance value of the Kolmogorov-Smirnov test, indicated by the asymptotic significance (asymp sig), is above 0.05, specifically 0.124. This indicates that the data has a normal distribution.

Table 1. Normality test Result

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		160
Normal Parameters[a,b]	Mean	,0000000
	Std. Deviation	6,32949117
Most Extreme Differences	Absolute	,093
	Positive	,093
	Negative	-,093
Kolmogorov-Smirnov Z		1,178
Asymp. Sig. (2-tailed)		,124

a. Test distribution is Normal.
b. Calculated from data.

2. Multicollinearity Test

Table 2. Multicollinearity Test result

Coefficients[a]

Model		Collinearity Statistics	
		Tolerance	VIF
1	Current Ratio	,880	1,137
	Debt To Equity Ratio	,851	1,176
	Total Asset Turnover	,906	1,104
	Harga Saham	,877	1,140

a. Dependent Variable: Return On Investment

In the Tabel 2, the tolerance values for all variables, which are found to exceed 0.1. Additionally, the VIF values for all variables are seen to be below 10. Therefore, it can be concluded that the variables are free from multicollinearity and the regression model is suitable for use to analysis.

3. Heteroscedasticity Test

Table 3. Heteroscedasticity Test result

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1,384	1,510		,917	,361
	Current Ratio	,626	,408	,203	1,534	,127
	Debt To Equity Ratio	-,183	,324	-,075	-,565	,573
	Total Asset Turnover	,261	,302	,074	,863	,389
	Harga Saham	,121	,775	,014	,170	,866

a. Dependent Variable: LnRes

In the Table 3, the significant values for several variables. CR has a value of 0.127, DER is 0.573, TATO is 0.389, and the stock price is 0.866. the significant value of the CR variable is 0.127, the significant value of the DER variable is 0.573, the significant value of the TATO variable is 0.389, and the significant value of the stock price variable is 0.866. Because the value is more than 0.05, it may be assumed that this study is free from heteroscedasticity.

4. Autocorrelation Test

Table 4. Autocorrelation Test

Runs Test

	Unstandardized Residual
Test Value[a]	-,57102
Cases < Test Value	80
Cases >= Test Value	80
Total Cases	160
Number of Runs	86
Z	,793
Asymp. Sig. (2-tailed)	,428

a. Median

In the Table 4, it can be observed that the significance of the run test value, as indicated by the asymp sig, is above 0.05, namely at 0.428. This indicates that the data is free from autocorrelation symptoms.

5. Regression Analysis Model I

Table 5. Coefficient determination (R2) of the Stock Price

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,350[a]	,123	,106	1,52886

a. Predictors: (Constant), Total Asset Turnover, Debt To Equity Ratio, Current Ratio

The coefficient determination (R-squared) in Table 5 is 0.123, indicating that the factors CR, DER, and TATO account for approximately 12.3% of the observed variability in Stock Price. An analysis of the remaining 87.7% of the data revealed that unaccounted variables within the research model exerted a discernible influence.

Table 6. F Test (Simultaneous Test) of Stock Price

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	50,992	3	16,997	7,272	,000[b]
	Residual	364,636	156	2,337		
	Total	415,628	159			

a. Dependent Variable: Harga Saham

b. Predictors: (Constant), Total Asset Turnover, Debt To Equity Ratio, Current Ratio

In the Table 6, f count is larger than f table (7.272 > 2.66), with a significance level smaller than 0.05 (0.000 < 0.05). This means that the variables CR, DER, and TATO together affect Stock Price.

Table 7. T Test (Partial Test) of Stock Price

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	6,632	,301		22,044	,000
	Current Ratio	-,052	,054	-,077	-,970	,334
	Debt To Equity Ratio	-,233	,072	-,255	-3,241	,001
	Total Asset Turnover	,708	,223	,243	3,177	,002

a. Dependent Variable: Harga Saham

In the Table, regression model can be explained as follows:

1. The findings of the t test indicate, CR variable has a calculated t value lower than the table t (-0.970 < 1.975) and a significant level significance level exceeding 0.05 (0.334 > 0.05). In the regression model I, in regression model I, stock prices are negatively and insignificantly affected by current ratio. Thus, the hypothesis is rejected.
2. The findings of the t test indicate variable DER ratio has a calculated t value greater than the table t (-3.241 > 1.975) and a significant level less than 0.05 (0.001 < 0.05). In the regression model I, stock prices are negatively and significantly affected by debt-to-equity ratio. Thus, the hypothesis is accepted.
3. The findings of the t test indicate, TATO variable has a calculated t value higher than the table t (3.177 > 1.975) and a significant level smaller than 0.05 (0.002 < 0.05). In the regression model I, stock price is positively and significantly affected by total asset turnover. Thus, the hypothesis is accepted.

6. Regression Analysis Model I

Table 8. Coefficient of determination (R2) of the Return on Investment

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,621[a]	,385	,370	6,41064

a. Predictors: (Constant), Harga Saham, Current Ratio, Total Asset Turnover, Debt To Equity Ratio

In the Table 8 shows that the R-squared value is 0.385, which is the coefficient of determination. This figure indicates that the variables of stock price, TATO, DER, CR, and RoI can explain around 38.5% of the variance. Other factors, not included in the study model, were determined to impact the remaining 61.5% of the data.

Table 9. F Test (Simultaneous Test) of the Return on Investment

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3995,462	4	998,865	24,305	,000[b]
	Residual	6389,931	155	41,096		
	Total	10385,393	159			

a. Dependent Variable: Return On Investment

b. Predictors: (Constant), Harga Saham, Current Ratio, Total Asset Turnover, Debt To Equity Ratio

In the Table 9, f count is larger than f table (24.305 > 2.43), with a significance level less than 0.05 (0.000 < 0.05). This means that the variables CR, DER, TATO, and Stock Price together affect ROI.

Table 10. T Test (Partial Test) of the Return on Investment

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-8,278	2,559		-3,233	,001
	Current Ratio	,590	,225	,176	2,619	,010
	Debt To Equity Ratio	-1,208	,311	-,265	-3,887	,000
	Total Asset Turnover	2,624	,964	,180	2,723	,007
	Harga Saham	1,727	,336	,346	5,145	,000

a. Dependent Variable: Return On Investment

The regression model can be explained as follows:

1. The findings of t test indicate, Stock Price variable has a calculated t value larger than the table t (5.145 > 1.975) and a significant level less than 0.05 (0.000 < 0.05). In the regression model II, Return on Investment is positively and significantly affected by Stock Prices. Thus, the hypothesis is accepted.
2. The findings of the t test indicate, CR variable has a calculated t value larger than the table t (2.619 > 1.975) and a significant level less than 0.05 (0.010 < 0.05). In the regression model II, Return on Investment is positively and significantly affected by Current Ratio. Thus, the hypothesis is accepted.
3. The findings of the t test indicate, the variable DER has a calculated t value larger than the table t (-3.887 > 1.975) and a significant level less than 0.05 (0.000 < 0.05). In the regression model II, Return on Investment is positively and significantly affected by Debt-to-Equity Ratio. Thus, hypothesis is accepted.
4. The findings of the t test indicate, Total Assets Turnover variable has a calculated t value larger than the table t (2.723 > 1.975) and a significant level smaller than

0.05 (0.007 < 0.05). In the regression model II, Return on Investment is positively and significantly affected by Total Assets Turnover. Thus. hypothesis is accepted.

7. Sobel Test

The Sobel test, invented by Sobel (Abu-Bader & Jones, 2021), is a process that can be utilized for conducting intervening hypothesis testing and known as the Sobel test. The formula of the Sobel test is as follows:

Sobel Test I

Table 11. Sobel Test I

Keterangan			
a_1	b	Sa_1	Sb
-0,052	1,727	0,054	0,336

5.1.3

$$\text{nilai z} = \frac{a_1 b}{\sqrt{(b)^2(sa_1)^2 + (a_1)^2(sb)^2 + (sa_1)^2(sb)^2}}$$

$$\text{nilai z} = \frac{-0.052 \times 1.727}{\sqrt{(1.727)^2(0.054)^2 + (-0.052)^2(0.336)^2 + (0.054)^2(0.336)^2}}$$

$$\text{nilai z} = \frac{-0.089804}{\sqrt{(0.008697054564) + (0.000305270784) + (0.000329204736)}}$$

$$\text{nilai z} = \frac{-0.089804}{0.0965998}$$

$$\text{nilai z} = -0.9296$$

z mutlak = 1,96

Based on calculation above, the z value is less than the absolute z value (-0.9296 < 1.96), as determined by the calculation above; therefore, it can be concluded that there is no mediating effect. This finding indicates that Return on Investment is not influenced by the Current Ratio as measured by Stock Price. Thus, the hypothesis is rejected.

Sobel Test II

Table 12. Sobel Test II

Keterangan			
a_2	b	Sa_2	Sb
-0,233	1,727	0,072	0,336

$$\text{nilai z} = \frac{a_2 b}{\sqrt{(b)^2(sa_2)^2 + (a_2)^2(sb)^2 + (sa_2)^2(sb)^2}}$$

$$\text{nilai z} = \frac{-0.233 \times 1.727}{\sqrt{(1.727)^2(0.072)^2 + (-0.233)^2(0.336)^2 + (0.072)^2(0.336)^2}}$$

$$\text{nilai z} = \frac{-0.402391}{\sqrt{(0.015461430336) + (0.006129010944) + (0.000585252864)}}$$

$$\text{nilai z} = \frac{-0.402391}{0.148915}$$

$$\text{nilai z} = -2.7021$$

z mutlak = 1,96

Since the z value is greater than the absolute z value (-2.7021 > 1.96), as determined by the calculation in the preceding section, it is feasible to conclude that a mediation effect is at work. This indicates that the Debt-to-Equity Ratio influences Return on Investment via the Stock Price. Thus, the hypothesis is accepted.

Sobel Test III

Table 13. Sobel Test III

Keterangan			
a_2	b	Sa_2	Sb
0,708	1,727	0,223	0,336

$$\text{nilai z} = \frac{a_2 b}{\sqrt{(b)^2(sa_2)^2 + (a_2)^2(sb)^2 + (sa_2)^2(ab)^2}}$$

$$\text{nilai z} = \frac{-0.233 \times 1.727}{\sqrt{(1.727)^2(0.223)^2 + (0.708)^2(0.336)^2 + (0.223)^2(0.336)^2}}$$

$$\text{nilai z} = \frac{1.222716}{\sqrt{(0.148318184841) + (0.056590700544) + (0.005614205184)}}$$

$$\text{nilai z} = \frac{1.222716}{0.458828}$$

nilai z = 2.6649

z mutlak = 1,96

According to the calculations above, the z value is more than the absolute z value (2.6649 > 1.96). Based on the results of the computation above, it is plausible to conclude that a mediation effect exists. The z value is greater than the absolute z value (2.6649 > 1.96), implying that there is a mediation effect. This suggests that the debt-to-equity ratio effects return on investment through the stock price. As a result, the hypothesis is accepted.

CONCLUSION

Based on the findings and analysis conducted in this study, the following conclusions can be inferred as follows:

1. Current Ratio, an instrument used to calculate a company's capacity to meet its immediate financial obligations, is not influenced by variations in stock prices.
2. Negative correlation happens between the Debt-to-Equity Ratio (DER) and the share price. Specifically, when the debt level, as measured by the Debt-to-Equity Ratio (DER), increases, the share price tends to decrease.
3. Increased Total Asset Turnover (TATO), which measures the turnover of assets, Stock Price will increase as well.
4. There exists a positive correlation between a company's share price and Return on Investment, if stock price of a company increased, the level of return on investment as measured by Return on Investment will be high as well.
5. Positive correlation happens between a business ability to fulfill its immediate financial obligations, as indicated by the Current Ratio, a higher Current Ratio is associated with a better Return on Investment.
6. Debt to Equity (DER) has an impact on the Return on Investment (ROI). There will be a negative correlation between rising debt levels and falling stock prices and ROI.
7. Positive connection happens between asset TATO and ROI, the higher the Return on Investment, the larger the Asset Turnover as shown by Total Asset Turnover.
8. The relationship between current ratio (CR) and share price doesnt have a significant impact on Return on Investment (ROI). The impact of company's

capacity to fulfill its immediate financial obligations on fluctuations in stock prices and return on investment remains unaffected.

9. The impact of Debt-to-Equity Ratio (DER) on Share Price influences Return on Investment. The relationship between DER and both stock price and return on investment is described by a negative correlation, where an increase in debt is associated with a fall in both stock price and return on investment.

The impact of TATO on Return on Investment is examined and there exists a positive correlation between TATO and both share price and Return on Investment (ROI), indicating that an increase in asset turnover leads to better stock prices and ROI.

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