Vol. 21 No. 3 (2025) pp. 291-299
INOVASI: Jurnal Ekonomi, Keuangan dan Manajemen
P-ISSN 0216-7786
E-ISSN 2528-1097

The Effect of Profit Margin, Asset Turnover, and Leverage on Sustainable Growth Rate in Consumer Goods Industry Companies Listed on the Indonesia Stock Exchange

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Abstract
The Sustainable Growth Rate is the maximum sales growth that the company can achieve without changing its capital structure. Therefore, the sustainable growth rate is considered useful as it can describe the company's performance. This study aims to analyze the effect of profit margin, asset turnover, and leverage on sustainable growth rate in consumer goods industry companies listed on the Indonesia Stock Exchange. By using purposive sampling method, 18 companies were obtained as research samples with 2016-2020 used as the research period. The analytical method used is multiple linear regression analysis method. The results of the study show that: (1) profit margin has a positive and significant effect on the sustainable growth rate; (2) assets turnover has a positive effect on sustainable growth rate; (3) leverage has no significant positive effect on sustainable growth rate.

Article history
Received 2025-04-10
Accepted 2025-06-15
Published 2025-08-25

Keywords
Sustainable Growth Rate;
Profit Margin;
Assets Turnover;
Leverage.

1. Introduction

In today's era of global industrial growth, entities compete for profits in order to grow and develop in a highly competitive environment. Even in the midst of competitive competition, the high demand for consumer products makes the consumer goods industry sector one of the sectors with a high growth rate. The Ministry of Industry explained that the food and beverage industry grew 7.91 percent throughout 2018, or higher than the national economic growth of 5.17 percent. Throughout 2019, the industrial sector continued to experience growth, especially the food and beverage industry with a growth of 7.78 percent (www.kemenperin.go.id 2020).

At the end of 2019, the covid-19 virus appeared so that it became a pandemic that caused a global economic recession. However, in the midst of a pandemic, there are actually several consumer goods industry entities that have managed to record higher sales figures than in previous years. This is supported by research by Devi, et al., (2020) which stated that consumer goods industry entities during the Covid-19 pandemic recorded an increase in financial performance. The following is a graph of the performance (sales) of several consumer goods industry entities from 2016 to 2020.

Devi et al., (2020) It states that when an entity's profit decreases as a result of declining sales, it certainly has an effect on profitability. So it is assumed that with sales growth every year, the profit that can be obtained also grows, thus it is expected to provide a better rate of return on equity. Profits that continue to grow can maintain the sustainable growth of consumer goods industry entities. According to Platt, *et al* in Nasim & Irnama, (2015) Define Sustained growth rate as the rate at which the entity's sales and assets can grow without issuing new shares and maintaining its capital structure. The existence of information on the growth of the entity's financial performance can be a signal for investors on the performance of the entity, which is in the *signalling theory* can help suppress information asymmetry.

2. METHOD

Signal Theory

Signal Theory in accounting refers to the state of information asymmetry between entity management and external parties. In order to reduce information asymmetry, management generally shares the information needed with external parties. Spence dalam Connelly et al., (2011), saying that signaling theory is basically concerned with reducing information asymmetry between two parties. The information disclosed by the entity's management is voluntary, in addition to mandatory information that has been determined by accounting standards or the Indonesian Institute of Accountants (IAI).

Population

The population included in this study includes all Manufacturing Issuers engaged in the Consumer Goods Industry whose shares are listed on the IDX from 2016 to 2020. In this study, there are 52 entities classified as Manufacturing Issuers in the Consumer Goods Industry.

Sample

The determination of the sample to be used for the research is determined by *purposive sampling*, That is, using certain considerations based on the suitability of sample characteristics that meet certain sample selection criteria. When determining the sample, certain considerations or criteria must be met to select the sample, namely: (1) Issuers that are classified as consumer goods issuers whose shares have been listed on the Indonesia Stock Exchange; (2) The issuer provides consecutive financial statements/data for 5 years from the period 2016-2020; (3) The issuer does not hold a *right issue* or issue new shares in the research year period; (4) The issuer distributes cash dividends consecutively during the research year period.

Analysis Tools

In this study, the data analysis tools used are by conducting quantitative analysis expressed by numerical variables using statistical calculation methods, and assisted by

statistical data processing programs *SPSS* (*Statistikal Product and Service Solutions*) version 22. The researcher conducts a classical assumption test before testing the hypothesis. The equation formulation to test the hypothesis is as follows:

$$\boldsymbol{Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e}$$

Description:

Y	= *Sustainable Growth Rate* (*SGR*)
a	= Konstanta
X1	= *Profit Margin*
X2	= *Assets Turnover*
X3	= *Leverage*
$\beta_1, \beta_2, \beta_3$	= Regression Coefficient of each X
e	= Standar Error

Data Analysis Methods

Descriptive statistics aim to make it easier to read data and understand the meaning of the data formulated through grouping, determining, and statistical functions through the use of various forms of tables (Gani & Amalia, 2018).

Normality tests are needed in this study to check whether there is data that is normally distributed or not. According to Gani & Amalia (2018) believe that the population has a normal distribution, if the data is not normally distributed so that it is said that the data does not reflect the population, if the regression uses abnormal data, then the regression results cannot be generalized to the population. In this study, the use of techniques in normality testing is the *Kolmogorov Smirnof*.

The Multicoliniarity test is used to find out whether a regression model shows a correlation between independent variables. The regression model can be said to be good, if there are no symptoms of multicollinearity. When there are symptoms of multicollinearity, the regression model becomes bad because several variables produce similar parameters, so they can interfere with each other (Gani & Amalia, 2018).

The heteroscedasticity test was carried out to find out whether the variance of the variables was similar or not. Heteroscedasticity refers to a condition in which the residual variant is not the same between one observation and another. When the variance and residue are the same from one observation to another, this condition is called the condition of homoskedasticity. Regression is called good when it is in the position of homoskedasticity instead of heteroscedasticity (Gani & Amalia, 2018).

The autocorrelation test is useful to find out if there are deviations from the classical assumption of autocorrelation, which is the correlation that occurs between the residual of one observation and another observation in the regression model (Basuki & Prawoto, 2017). According to Gani & Amalia (2018), there are various methods of detecting symptoms related to autocorrelation, i.e. tests *Durbin-Watson* (DW *test*), test *Langrage Multiplier* (LM *test*), Q statistical test, and *Run Test*.

Multiple linear regression models describe the functional relationships of multiple variables, consisting of a single dependent variable (bound) and/or a number of independent (independent) variables (Gani & Amalia, 2018).

Test F (*Goodness of Fit Test*) is a model feasibility test that determines how well the model can be used to estimate populations. A regression model is considered feasible if the F-value of a model meets the specified standard (Gani & Amalia, 2018).

The coefficient of determination (R2) shows the percentage variation in the change in the value of the variable *independent* (Y), which determines the variation in the change in the value of the variable *dependent* X (Gani & Amalia, 2018). The magnitude of the coefficient of determination is in the range of zero and one ($0 \leq R2 \leq 1$). Basuki dan Prawoto (2017) saying that a high R2 value indicates a good regression line, which means that it can explain the actual data better, on the other hand, when the R2 value is low, the regression line is not good.

RESULTS AND DISCUSSION

Descriptive Statistical Analysis

Table 1. Descriptive Statistical Test Results

	N	Minimum	Maximum	Mean	Std. Deviation
NPM	90	,075	190,099	14,36965	20,956367
THIS	90	,446	3,105	1,22122	,587345
THE	90	8,330	315,902	73,33700	64,729084
SGR	90	-33,185	2834,923	51,23270	301,890410
Valid N (listwise)	90				

The *Net Profit Margin* (*NPM*) variable obtained a *minimum* value of .075 which is the value of PT Chitose Internasional Tbk in 2020. Meanwhile, the *maximum NPM* value is 190,099 which belongs to PT Merck Tbk in 2018. The *NPM* variable has mean values and standard deviations of 14.370 and 20.956, respectively.

The *Total Asset Turnover* (*TATO)* variable obtained a minimum value of .446 which is the value of PT Delta Djakarta Tbk in 2020. Meanwhile, the *maximum TATO* value is 3.105 which belongs to PT Wilmar Cahaya Indonesia Tbk in 2018. The *TATO* variable has an average value of 1.221 and a standard deviation of .587.

The Debt *Equity Ratio* (*DER)* variable obtained a *minimum* value of 8.330 which is the value of PT Industri Jamu dan Farmasi Sido Muncul Tbk in 2016. Meanwhile, the *maximum DER* value is 315,902 which belongs to PT Unilever Indonesia Tbk in 2020. The *DER* variable has an average value of 73.337 and a standard deviation of 64.729.

The *Sustainable Growth Rate* (*SGR*) variable obtained a *minimum* value of -33.185 which is the value of PT Multi Bintang Indonesia Tbk in 2020. Meanwhile, the *maximum SGR* value is 2834,923 which belongs to PT Multi Bintang Indonesia Tbk in 2019. The *SGR* variable has an average value of 51.233 and a standard deviation of 301.890.

Normality Test

The normality test in this study used *the Kolmogorov-Smirnov technique*. The regression model can be said to be normally distributed if the significance calculation is greater than 0.05. The results of the normality test can be seen in the table below:

Table 2. Normality Test Results

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		90
Normal Parametersa,b	Mean	Normal Parametersa,b
	Std. Deviation	291,95904880
Most Extreme Differences	Absolute	Most Extreme Differences
	Positive	0,438
	Negative	-0,293
Test Statistic		,438
Exact Sig. (2-tailed)		,000

a. Test distribution is Normal.
b. Calculated from data.
c. Lilliefors Significance Correction.

The results of the normality test in table 2 show abnormal data distribution. The significance parameter (Sig 2-tailed) was below α 0.05 (.000 <.05). To overcome the abnormal distribution of data, it is necessary to transform the data to produce data that is normally distributed, so that parametric statistical testing can be carried out.

In this study, the transformation method used is the *Two-Step Transformation* submitted by Templeton (2011). According to Templeton (2011) *Two-Step Transformation* is a method that can be

used to convert a continuous variable that is not normally distributed to statistical normality (i.e., it meets most diagnostic tests that correspond to normality). The following are the *output* The results of the data normality test after transformation using the *Two-Step Transformation*.

Table 3. Normality Test Results After Transformation

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		86
Normal Parametersa,b	Mean	Normal Parametersa,b
	Std. Deviation	240,43282570
Most Extreme Differences	Absolute	Most Extreme Differences
	Positive	0,065
	Negative	-0,129
Test Statistic		,129
Exact Sig. (2-tailed)		,104

a. Test distribution is Normal.
b. Calculated from data.
c. Lilliefors Significance Correction.

The results of the data normality test after transformation with *the Two-Step Transformation* method in table 3 show that the data has been distributed normally. This can be seen in the significance parameter (*Sig 2-tailed*) that has exceeded the limit of α 0.05 (.104 >.05), which means that the data are normally distributed so that it can be concluded that the data in this study can be used for multiple regression model testing.

Multicoliniarity Test

The Multicoliniarity test is used to test whether a regression model shows a correlation between independent variables. To find out whether there are symptoms of multicollinearity in the regression model, it can be seen from the *tolerance* and *VIF values*. The regression model is said to be free of the symptoms of multicollinearity if *the tolerance* value is > 0.10 and *the VIF* is < 10.

Table 4. Multicollinearity Test Results

Coefficients[a]

Model		Collinearity Statistics	
		Tolerance	LIVE
1	NPM	,895	1,117
	THIS	,923	1,083
	THE	,848	1,180

a. Dependent Variable: SGR

Based on table 4, it shows that the *Tolerance* value of each variable is greater than 0.10 and *VIF* is less than 10. So that overall it can be concluded that in the regression model there are no symptoms of multicollinearity.

Heteroscedasticity Test

The heteroscedasticity test was carried out to test whether or not there are similarities in the variable variance regression model from one observation to another. In this study, *the scatterplot method* was used as a heteroscedasticity test. The basis for decision-making is that there are no symptoms of heteroscedasticity if the randomly dispersed data points do not form certain patterns. The following are the results of the heteroscedasticity test with *scatterplot*.

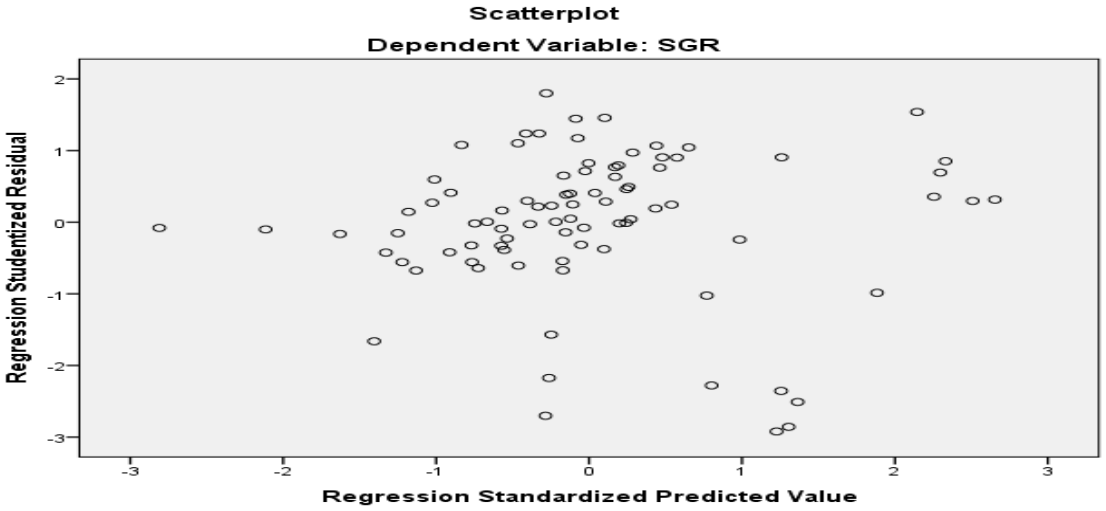

Figure 1. Scatterplot

Based on the results of the heteroscedasticity test presented in Figure 1, it can be observed that the research data points are randomly dispersed, and do not accumulate at one point, and do not spread or form a certain pattern. In the image, it can also be seen that the data points are evenly distributed, above and below, on the left and also on the right of the value of 0 or the Y axis.

Autocorrelation Test

The autocorrelation test is used to determine whether there are deviations from the classical assumption of autocorrelation, which is the correlation that occurs between the residual of one observation and other observations in the regression model. The autocorrelation test in this study used *the Run Test* method. *Run Test* is used to find out if there is a high correlation between residuals. A model is said to be free of autocorrelation symptoms in the *Run Test* test if the residual significance level tested has a value above the probability level of 0.05.

Table 5. Autocorrelation Test Results

Runs Test

	Unstandardized Residual
Test Valuea	36,59804
Cases < Test Value	43
Cases >= Test Value	43
Total Cases	86
Number of Runs	51
Z	1,519
Asymp. Sig. (2-tailed)	,129

a. Median

Based on table 5 above, it can be seen that the *Asymp Sig* (2-tailed) value of .129 is greater than 0.05, so it can be concluded that there are no autocorrelation symptoms in the regression model.

Model Feasibility Test (F Test)

Table 6. Model Feasibility Test Results (F Test)

ANOVA

Model		Sum of Squares	df	Mean Square	F	Say.
1	Regression	2023002,463	3	674334,154	11,253	,000b
	Residual	4913675,214	82	59922,868		
	Total	6936677,677	85			

a. Dependent Variable: SGR
b. Predictors: (Constant), DER, TATO, NPM

Based on the *SPSS output* above, in the ANOVA table the Sig. value shows that the value of .000 is less than 0.05 and the Fcal value of 11.253 is greater than the Ftable of 2.716 which means that the regression model is feasible to use.

Multiple Linear Regression Analysis

Table 7. Results of Multiple Linear Regression Analysis

Coefficientsa

Model		Unstandardized Coefficients		Standardized Coefficients	t	Say.
		B	Std. Error	Beta		
1	(Constant)	-343,714	74,026		-4,643	,000
	NPM	5,261	1,402	,369	3,752	,000
	THIS	208,070	49,644	,405	4,191	,000
	THE	,900	,468	,194	1,924	,058

a. Dependent Variable: SGR

Based on table 7 above, the multiple linear regression equation is obtained as follows:

$$\boldsymbol{Y = -343,714 + 5,261X_1 + 208,070X_2 +, 900X_3 + e}$$

The constant value (α) of -343.714 states that, if all the free variables are equal to 0, then the predicted value of *the sustainable growth rate* is -343.714.

The value of the regression coefficient of the *net profit margin* is 5.261 and the significance is .000. This value can be interpreted as having *a positive* effect on *the sustainable growth rate*. This means that if the value of the regression coefficient of the other variables is fixed, then the change *in the net profit margin* (X1) by 1% will increase sustainable *growth* (Y) by 5.261%.

The value of the regression coefficient of *total asset turnover* is 208.070 with a significance of .000. This value can be interpreted as total *asset turnover* having a positive effect on *the sustainable growth rate*. This means that if the regression coefficient value of the other variables is fixed, then the change in total *asset turnover* (X2) by 1× increase in the number will increase sustainable *growth* (Y) by 208.070×.

The value of the regression coefficient of the *debt to equity ratio* is .900 with a significance of .058. This value can be interpreted as having *a* positive effect on *the sustainable growth rate*. This means that if the value of the regression coefficient of the other variables is fixed, then a change *in the debt to equity ratio* (X3) of 1% will increase *sustainable growth* (Y) by 0.900%.

Coefficient of Determination Test (R2)

Table 8. Determination Coefficient Test Results (R2)

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,540a	,292	,266	244,791480

a. Predictors: (Constant), DER, TATO, NPM

b. Dependent Variable: SGR

Based on table 8, it is known that the magnitude of the determination coefficient (R Square) is .292 which means that *the variables NPM*, *TATO,* and *DER* can explain the *variation in SGR* by 29.2%, while the remaining 70.8% is determined by other variables that are not used in the regression model of this study.

Hypothesis Test (t-Test)

Hypothesis testing in this study was carried out by comparing the level of significance (*Sig*) in each variable with α 0.05 and by looking at the direction of influence on the value of the regression coefficient (β) in each variable. The variable is said to have an effect if the significance value is less than 0.05. The following are the results of the hypothesis test in this study.

Table 9. Hypothesis Test Results

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Say.
		B	Std. Error	Beta		
1	(Constant)	-343,714	74,026		-4,643	,000
	NPM	5,261	1,402	,369	3,752	,000
	THIS	208,070	49,644	,405	4,191	,000
	THE	,900	,468	,194	1,924	,058

a. Dependent Variable: SGR

The Effect *of Profit Margin* on *Sustainable Growth Rate*

Profit Margin has a significance level of .000 where the significance value is smaller than the level of α 0.05 (.000 <.05) and has a regression coefficient value (β) with a positive direction (5.261) and has a calculation of 3.752 greater than the table of 1.663. Thus, it can be interpreted that *profit* margins have a positive and significant effect on *the sustainable growth rate*. So the first hypothesis (H1) that profit *margin* has a positive and significant effect on *the sustainable growth rate* is accepted.

The Effect of *Asset Turnover* on *Sustainable Growth Rate*

Asset turnover has a significance level of .000 where the significance value is smaller than the level of α 0.05 (.000 <.05) and has a regression coefficient value (β) with a positive direction (208.070) and has a calculation of 4.191 which is greater than the table of 1.663. Thus, it can be interpreted that *asset turnover* has a positive and significant effect on *the sustainable growth rate*. So the second hypothesis (H2) that says that *asset turnover* has a positive and significant effect on *the sustainable growth rate* is accepted **.**

The *Effect* of *Leverage* on *Sustainable Growth Rate*

Leverage has a significance level of .058 where the significance value is greater than the level of α 0.05 (.058 >.05) and has a regression coefficient value (β) with a positive direction (.900) and has a calculation of 1.924 greater than the table of 1.663. Thus, it can be interpreted that *leverage* has a positive and insignificant effect on *the sustainable growth rate*. So the third hypothesis (H3) that says that *leverage* has a positive and significant effect on *the sustainable growth rate* is rejected **.**

4. CONCLUSION

For entities with low *NPM* scores , it is expected to further improve their ability to generate profits, one of which can be achieved through the efficiency of the use of operational costs incurred by the entity so that the entity can collect internal funding so that it can support its operating activities.

For entities with low *TATO* scores, it is hoped that entity management can work more efficiently so that the entity can continue to operate. Entities are advised to take care of assets regularly so that their use can be more efficient and optimal to increase sales figures.

For entities that have a high *DER* ratio, it is expected to be able to re-evaluate the *leverage* policy implemented by the entity so that the entity can obtain high profits without incurring debt to other parties in order to optimize internal funds.

For the next researcher, it is hoped that it can add to the sample studied, especially in other sectors and expand in terms of the variables being researched so that future research can be better and beneficial for various parties.

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