

The Analysis of the Effect of Profitability Ratio on Capital Structure in Consumption Items Companies Registered on the Indonesia Stock Exchange (IDX)

by

Abdul Rahman¹

Lecturer of Management at the Faculty of Economy, Universitas Asahan, Indonesia
Email: hjabdrahman30@gmail.com

Rosnaida

Lecturer of Management at the Faculty of Economy, Universitas Asahan, Indonesia
Email: rosnaidasemm@gmail.com

Abstract

This study was conducted to examine the effect of profitability variables, namely Return on Assets, Return on Equity and Net Profit Margin on the Capital Structure of consumer goods companies listed on the IDX. The data was obtained by purposive sampling method with the following criteria (1) the company was registered and not delisted from the Indonesia Stock Exchange in 2019-2020. The analysis technique used is descriptive statistics and employed multiple linear regressions for hypothesis testing. The results of the analysis show that the data used in this study has met the classical assumptions, which include: no multicollinearity symptoms, no autocorrelation, no heteroscedasticity symptoms, and normally distributed data. The results of the regression analysis show that partially the Return on Assets variable has a negative and significant effect on capital structure. This is indicated by of -5.907 with a significance value of 0.000 while is -1.993 so that $< (-5.907) < (-1.993)$. The Return on Equity variable has a significant effect on the capital structure. This is indicated by 7.118 with a significance value of 0.000 while is 1.993 so that $> (7.118 > 1.993)$. The Net Profit Margin variable partially has no significant effect on capital structure. This is indicated by 1.357 with a significance value of 0.179 while is (-1.993) so that $> (1.357 > 1.993)$. Simultaneously, the Return on Assets, Return on Equity and Net Profit Margin variables affect the capital structure of consumer goods companies listed on the IDX, this can be seen from the probability value (significance) of the simultaneous test (F test) is 0.000 (less than 0). 0.05) an na; $I F_{count} > F_{table}$ (17.703 > 2.70).

Keywords: Return on assets, return on equity, net profit margin, equity ratio, etc.

Introduction:

In regards to meeting its funding needs, a company prioritizes sources from within the corporation. Thus, it will greatly reduce its dependence on outside parties. If the need for funds has increased so considerably due to the company's growth, and all funds from internal sources have been used, then there is no other choice, but to use funds from outside the company either

¹ Corresponding author

from debt (debt financing) or by issuing new shares² in fulfilling their funding needs. Therefore, in principle, every company needs funds for business development. The fulfilment of these funds comes from internal sources or external sources. Therefore, financial managers while still paying attention to the cost of capital need to determine the capital structure to determine whether the company's funding needs are met with their capital or filled with foreign capital.

On the other hand, potential investors also see the company's capital structure as one of the main considerations for investing their funds, related to the risks and expected returns of these potential investors. Potential investors who avoid large risks will choose companies that have a good capital structure in the hope that the company will have stable operations and profit as well. The capital structure is a combination of debt and equity in the company's long term financial structure. Fulfilling the company's funding needs from its source of capital comes from share capital, retained earnings, and reserves. In meeting funding needs, companies must look for efficient funding alternatives. Efficient funding will occur if the company has an optimal capital structure. The capital structure of a company is determined by the financing policy of the financial manager who is constantly faced with considerations both qualitative and quantitative which include three important elements.

The problem of capital structure is an important problem for every company because the good or bad of the company's capital structure will have a direct effect on its financial position. For profit-seeking companies, usually prioritize profits for their owners or shareholders. A shareholder who is buying shares also means expecting a certain return with minimal risk. With the high level of return obtained by shareholders, shareholders will be interested and the share price will be higher so that the welfare of shareholders will increase. Besides, it also aims to maintain the survival of the company and develop its business.

Profitability is the company's ability to generate profits over a certain period. The profit gained from the investment that will be invested is the main consideration for a company in the context of developing its business. Companies with high profitability certainly have more internal funds than companies with low profitability. The profitability ratios used in this study are Return on Assets (ROA), Return on Equity (ROE) and Net Profit Margin (NPM). ROA shows how much the company's ability to generate profits by utilizing its assets, while ROE describes the level of return generated by the company for its shareholders.

Net Profit Margin (NPM) as a comparison between net profit and sales. The larger the Net Profit Margin, the more productive the company's performance will be, so that it will increase investor confidence to invest in the company. The Net Profit Margin ratio shows how big the percentage of net profit is from each sale. The relationship between net income after tax and net sales shows the ability of management to control the company successfully enough to set aside a certain margin as reasonable compensation for owners who have provided their capital for risk.

Profitability is an important independent variable that influences capital structure. The higher the profit of a company, the lower its debt will be because more and more internal funds are available to fund its investment. Funding decisions that are not made carefully will result in fixed costs in the form of high costs of capital, and in turn, will result in low profitability of the company. Companies with high returns on investment use relatively small debt. The high rate of return makes it possible to finance most of the funding needs with internally generated funds.

The capital structure is measured by the Debt to Equity Ratio (DER) because DER reflects the large proportion between total debt and total equity. DER is the company's ability to repay

² external equity financing

the debt by looking at the company's capital. Where total debt is total liabilities (both short-term debt and long-term debt), while shareholder's equity is the total equity divided by the total paid-in share capital and retained earnings.

The reason for choosing the consumer goods industry sector as the subject of this research is because this industry is considered to be able to survive the economic crisis compared to other industries because in a crisis or not most consumer goods are still needed. The consumption sector is also considered to be the main driver of Indonesia's economic growth after investment and exports tend to stagnate. The development of consumer goods companies in Indonesia seems to be increasing from year to year because these companies are very much needed by the community, where people are enabled in their daily lives to consume products produced by consumer good companies.

For example, the food and beverages industry and pharmaceuticals which produces foodstuff and liquid refreshment, as well as medicines. Every day people are inseparable from these products, and always need them to maintain survival. So the prospects for consumer goods companies may remain bright in the present and the future. By owning shares of this industry, it is hoped that the profits will be greater than the elements of loss.

Research Methods:

The research site used by the researcher is a consumer goods company listed on the IDX. Thus, researchers will use data provided by the Indonesia Stock Exchange (IDX), namely financial reports issued by companies that are the research sample in the specified period, namely the 2019/2020 period.

Population and Research Sample:

A population is a group of people, events, something that has certain characteristics (Erlina 2008, p. 75). The population in this study was all consumer goods companies listed on the Indonesia Stock Exchange. Based on data obtained from the Indonesian Capital Market Directory (ICMD), the companies that became the population of this study were 39 companies.

The sample is the part of the population that is used to estimate the characteristics of the population. The sampling method was carried out by purposive sampling technique, namely the sampling technique based on certain criteria. Some of the considerations determined by the researchers are as follows:

- i. The company is registered and not delisted from the IDX in 2019/2020.
- ii. Companies that publish complete financial statements have all the necessary data in full from the variables studied during the 2019/2020 research period.

Based on these criteria, the sample companies in this study were 26 companies with time-series data for 3 years and 78 observations. These companies are as follows:

Table 1: Population List and Company Sample³

No.	Company Name	Code	Sampling Criteria		Sample
			1	2	
1.	Akasha Wira International Tbk	ADES	✓	✓	Sample 1
2.	Aqua Golden Mississippi Tbk	AQUA	✓	X	
3.	Cahaya Kalbar Tbk	CEKA	✓	✓	Sample 2
4.	Davomas Abadi Tbk	DAVO	✓	✓	Sample 3
5.	Delta Jakarta Tbk	DLTA	✓	✓	Sample 4
6.	Indofood CBP Sukses Makmur Tbk	ICBP	X	✓	
7.	Indofood Sukses Makmur Tbk	INDF	✓	✓	Sample 5
8.	Mayora Indah Tbk	MYOR	✓	✓	Sample 6
9.	Multi Bintang Indonesia Tbk	MLBI	✓	✓	Sample 7
10.	Nippon Indosari corpindo Tbk	ROTI	X	✓	
11.	Prasidha Aneka Niaga Tbk	PSDN	✓	✓	Sample 8
12.	Sari Husada Tbk	SHDA	✓	X	
13.	Sekar Bumi Tbk	SKBM	✓	X	
14.	Sekar Laut Tbk	SKLT	✓	✓	Sample 9
15.	Siantor Top Tbk	STTP	✓	✓	Sample 10
16.	Suba Indah Tbk	SUBA	✓	X	
17.	Tiga Pilar Sejahtera Food Tbk	AISA	✓	✓	Sample 11
18.	Ultra Jaya Milk Tbk	ULTJ	✓	✓	Sample 12
19.	BAT Indonesia Tbk	BATI	✓	X	
20.	Bentoel International Investama Tbk	RMBA	✓	✓	Sample 13
21.	Gudang Garam Tbk	GGRM	✓	✓	Sample 14
22.	HM Sampoerna Tbk	HMSP	✓	✓	Sample 15
23.	Taisho Pharmaceutical Indonesia Tbk	SQBI	✓	✓	Sample 16
24.	Darya-Varia Laboratoria Tbk	DVLA	✓	✓	Sample 17
25.	Indofarma Tbk	INAF	✓	✓	Sample 18
26.	Kalbe Farma Tbk	KLBF	✓	✓	Sample 19
27.	Kimia Farma Tbk	KAEF	✓	✓	Sample 20
28.	Merck Tbk	MERK	✓	✓	Sample 21
29.	Pyridam Farma Tbk	PYFA	✓	✓	Sample 22
30.	Schering Plough Indonesia Tbk	SCPI	✓	✓	Sample 23
31.	Tempo Scan Pacific Tbk	TSPC	✓	✓	Sample 24
32.	Mandom Indonesia Tbk	TCID	✓	✓	Sample 25
33.	Martina Berto Tbk	MBTO	X	✓	
34.	Mustika Ratu Tbk	MRAT	✓	✓	Sample 26

Types of Data and Data Sources:

The type of data used in this research is secondary data. Secondary data is primary data that has been further processed and presented by primary data collectors and other parties. The data was obtained through a computerized search from the official website of the Indonesian Stock Exchange, namely www.idx.co.id in electronic format (database) and the Indonesian Capital Market Directory. The data in this study is a combination of time series data and cross-section data. Time series data is data collected from time to time on one object to describe developments, while cross-section data is data collected at a certain time on several objects to describe the situation. The sample used in this study was 78 samples, namely 26 x 3 years (series) from 2019 to 2020.

³ Source: www.idx.co.id , 2020

Data Collection Techniques:

Methods of collecting data utilizing documentation techniques and literature study, namely researchers collect secondary data in the form of notes, financial reports, accounting journals, references to previous research and other information related to this research. In this study, data were obtained through the internet by downloading the required financial reports of consumer goods sector companies through the website www.idx.co.id and from ICMD (Indonesian Capital Market Directory).

Variable Operational Definition:

According to Erlina (2008, p. 52) "Operational Definition is a definition that explains the characteristics of the object into observable elements that cause the concept to be measured and operationalized into research". The study involved three variables consisting of one dependent variable (the dependent variable) and three independent variables (the independent variable). The independent variables include Return on Assets, Return on Equity and Net Profit Margin. Capital structure as the dependent variable.

The operational definition of each variable in this study can be explained as follows:

- i. Return on Assets (X1) is a ratio used to measure the effectiveness of the company in generating profits by utilizing its total assets.
- ii. Return On Equity (X2) is the ratio used to measure the company's ability to generate net profit after tax on equity participation.
- iii. Net Profit Margin (X3) Ratio that describes the amount of net profit earned by the company on each sale made.
- iv. Capital structure (Y) is the company's ability to provide funds in terms of repaying its debts using its capital.

Table 2: Variable Operations⁴

Variable Type	Definition	Indicator	Measurement
<i>Return On Assets (X₁)</i>	ROA describes the extent of the rate of return on all assets owned by the company	$ROA = \frac{Net\ Income\ After\ Tax}{Total\ Asset}$	Ratio
<i>Return On Equity (X₂)</i>	ROE is a return on equity whose amount is expressed as a parameter and is obtained on investment in the company's common stock for a certain time.	$ROE = \frac{Net\ Income\ After\ Tax}{Total\ Equity}$	Ratio
<i>Net Profit Margin (X₃)</i>	NPM is a ratio used to show the company's ability to generate net profits after tax	$NPM = \frac{Profit\ after\ tax}{Sale}$	Ratio
Capital Structure (Y)	Capital structure is the company's ability to repay the debt by looking at the company's capital.	$DER = \frac{Total\ Debt}{Shareholder\ Equity}$	Ratio

⁴ Source: Processed Data

Variable Measurement Scale:

This research was conducted using a survey approach where a research design was carried out carefully and thoroughly in testing a research subject, in addition to generalizing the accuracy of an observation from a representative sample. This type of research is quantitative descriptive and the variable measurement scale used in this study is the ratio scale.

Data analysis method:

In this study, the data analysis method used is the multiple linear regression method with data processing through SPSS (Statistical Package for Social Science). All analyzes were carried out with the help of SPSS (Statistical Package Social Science) Software.

Descriptive Statistics:

These statistics are used to provide an overview of the profile of the sample. This study uses descriptive statistics consisting of the mean, standard deviation, minimum and maximum.

Multiple regression analysis:

Multiple regression analysis is intended to examine the simultaneous effect of several independent variables on one dependent variable. Regression analysis is used by researchers if the researcher intends to predict how the condition (up and down) of the dependent variable will be, and if two or more independent variables as predictors are manipulated or increased in value. Regression analysis can provide answers regarding the magnitude of the influence of each independent variable on the dependent variable (Ghozali, 2006).

In this study, the multiple regression model is as follows:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + e$$

Description:

Y	= Capital Structure
a	= Constant
b ₁ ,b ₂ ,b ₃	= Regression Coefficient
X ₁	= Return On Assets (ROA)
X ₂	= Return On Equity (ROE)
X ₃	= Net Profit Margin (NPM)
e	= Error of term

For accuracy of calculations while reducing human errors, a computer program is used to assist statistical data processing, namely the SPSS program with a significant level of 95% confidence level with = 0.05.

Hypothesis Testing and Classical Assumption Test:

Classical Assumption Test:

This classical assumption test is intended to ensure that the model obtained meets the basic assumptions in the regression analysis. Classical assumption tests include:

Data Normality Test:

The normality test was conducted to determine whether in the regression model the dependent variable and the independent variable both had a normal distribution or not (Wijaya 2001: 41). Several ways can be used to see the normality of the data in this study:

- i. Kolmogorov Smirnov test, in this test there are guidelines used in decision making.

If the significant value < 0.05 then the data distribution is not normal.

If the value is significant > 0.05 then the data distribution is normal.

- ii. Normality Probability Plot Graph, which is to test whether the research data is normally distributed or cannot be detected by P-P Plot Normal Graph Analysis. Normal P-P Plot Graph Analysis is if the data distribution is normal then some points spread around the diagonal line and the distribution follows the direction of the diagonal line. If the data spreads far from the diagonal and/or does not follow the direction of the diagonal line, the regression model does not meet the assumption of normality.

Autocorrelation Test:

The autocorrelation test aims to analyze whether in the linear regression model there is a correlation between the confounding error in period t and the previous error. The autocorrelation test can be detected by using the Durbin-Waston test (DW). The decision making whether there is autocorrelation is as follows:

- i. D-W numbers below -2 mean that there is a positive autocorrelation,
- ii. D-W numbers are between -2 to $+2$, meaning there is no autocorrelation
- iii. D-W numbers above $+2$ mean that there is a negative autocorrelation.

Multicollinearity Test:

The multicollinearity test is intended to test whether the regression model finds a correlation between the independent variables. A good regression model should not occur multicollinearity. Multicollinearity can be seen from the value of tolerance and Variance Inflation Factor (VIF). Tolerance is a measure of the variability of the selected independent variable that is not explained by other independent variables. Multicollinearity detection if the value of variance inflation factor (VIF) is less than 10 and the tolerance value is greater than 0.10, the model can be said to be free from multicollinearity (Ghozali, 2005, p. 91)

Heteroscedasticity Test:

The heteroscedasticity test aims to test whether in the regression model there is an inequality of variance from the residuals of one observation to another observation. If the variance from one residual observation to another observation remains, then there is homoscedasticity and if it is different it is called heteroscedasticity. A good regression model is one with homoscedasticity or no heteroscedasticity. To detect the presence or absence of heteroscedasticity, it can be seen from the Scatterplot graph between the predicted value of the dependent variable, namely ZPRED and the residual SRESID. If there is a certain pattern such as

the dots that form a certain regular pattern, then heteroscedasticity has occurred. On the other hand, if there is no clear pattern and the points are spread out, then there is no heteroscedasticity.

Hypothesis Testing:

Determinant Coefficient Test (R²):

The coefficient of determination (R²) is used to measure how far the model's ability to explain variations in the dependent variable R Squared value (R²) Adjusted R² is the coefficient of determination, namely the coefficient that explains how big the proportion of variation in the dependent can be explained by the independent variables together. Adjusted R² is generally able to provide punishment for the addition of independent variables that are not able to increase the predictive power of a model. The value of the coefficient of determination is between 0 and 1. A small value of R² means that the ability of the independent variables to explain the variation of the dependent variable is very limited (Ghozali, 2005). A value close to 1 (one) means that the independent variables provide almost all the information needed to predict the variation of the dependent variable.

Partial Significance Test (t-test):

The t-test was conducted to determine whether or not the effect of each independent variable was significant on the dependent variable, or in other words, to test the effect of the independent variable and the dependent variable partially.

H₀: $b_i \neq 0$ It means that Return on assets, return on equity, and net profit margin partially affects the capital structure.

H₁: $b_i = 0$ This means that Return on assets, return on equity, and net profit margin and, partially dividend payout ratio has no effect on capital structure.

Decision-making criteria:

- i. If $t_{count} > t_{table}$ with a significance level of 5%, then the proposed H₁ is accepted.
- ii. If $t_{count} < t_{table}$ with a significant level of 5%, then H₁ cannot be accepted.

Simultaneous Significance Test (F-Test):

According to Ghozali (2005, p. 84) states that "the F statistical test shows whether all the independent variables referred to in the model have a joint influence on the dependent variable".

The hypothesis for the F statistic test is as follows:

H₀: $b_1 = b_2 = b_3 = 0$ this means that Return on assets, return on equity, and net profit margin, simultaneously have no effect on capital structure.

H₂: $b_1 \neq b_2 \neq b_3 \neq 0$ this means that Return on assets, return on equity, and net profit margin, simultaneously affect the capital structure.

Decision-making criteria:

- i. If $F_{count} > F_{table}$ with a significance level of 5%, then the proposed H_2 is accepted.
- ii. If $F_{count} < F_{table}$ with a significant level of 5%, then H_2 cannot be accepted.

Research Results:

Overview of Indonesia Stock Exchange Development:

IDX has been using a trading system called the Jakarta Automated Trading System (JATS) since May 22, 1995, replacing the manual system that was previously used. With automation, trading liquidity will increase because the service on each order is getting faster. The provision of information is more accurate and quicker and more widespread and will increase the confidence of investors. The Indonesia Stock Exchange is one of the stock exchanges that can provide investment opportunities and sources of financing to support national economic development. The Indonesia Stock Exchange (IDX) also plays a role in efforts to develop large and solid local investors to create a stable Indonesian capital market. To provide more complete information on the development of the stock exchange to the public, the Indonesia Stock Exchange (IDX) has disseminated data on stock price movements through print and electronic media. One indicator of stock price movements is the stock price index.

IDX's vision is to become a competitive exchange with world-class credibility. Meanwhile, its mission is to become a pillar of the Indonesian economy, market-oriented, transforming companies, building institutions, and providing the highest quality services and products. PT. The Jakarta Stock Exchange (JSX) was first established during the Dutch East Indies government, which was later re-established through the Emergency Law no. 13 of 1951, and further confirmed by the Law of the Republic of Indonesia No. 15 of 1952. Over the next two decades, the JSX experienced ups and downs which were also marked by the cessation of activity throughout the 1960s and early 70s. In 1977, the Government of Indonesia revived the JSE by listing the shares of 13 PMA companies. However, it wasn't until the late '80s and early 90s that the JSE developed into the stock exchange as we know it today.

With the enactment of Law no. 8 of 1995 concerning the Capital Market, the role of the JSE as one of the Self-Regulatory Organizations (SROs) for the Indonesian Capital Market was further confirmed. Since then, the JSE has grown rapidly, thanks to several achievements in trading technology, including the introduction of the Jakarta Automated Trading System (JATS) in 1995, script less trading in 2001 and remote trading in 2004, as well as the enactment of new regulations on listing, trading and exchange membership.

The data analysis method used in this study is a statistical analysis method using multiple linear regression equations. Data analysis begins with processing data using Microsoft Excel and then proceeds with classical assumption testing and multiple regressions testing using SPSS software. The procedure begins by entering the research variables into the SPSS program and producing outputs according to the predetermined data analysis method. Based on the predetermined criteria, 26 consumer goods companies were obtained that met the criteria and were used as samples in this study during the 2019-2020 periods.

Descriptive Statistical Analysis:

The method used in this research is the descriptive statistical method, which is research conducted to obtain a factual picture of the company's condition in the analysis. Descriptive statistics provide an overview of the minimum value, maximum value, average (mean) and

standard deviation of the independent variables and dependent variables. The information needed in this study is secondary data in the form of financial data for a sample of consumer goods companies from 2019-2020 which is described in statistical form.

The variables in this study consisted of Return on Assets, Return on Equity and Net Profit Margin as independent variables and capital structure proxied by Debt to Equity Ratio (DER) as the dependent variable. Descriptive statistics are presented in the following table:

Table 3: Descriptive Statistics⁵

	Mean	Std. Deviation	N
DER	.9469	.65045	78
ROA	.1233	.10853	78
ROE	.2551	.30505	78
NPM	.7126	.68922	78

Based on the data from table 3 it can be explained that:

- i. The Debt to Equity Ratio (DER) variable has a total sample (N) of 78, with a mean (average) of 0.9469. The standard deviation of this variable is 0.65045.
- ii. The Return on Assets (ROA) variable has a total sample (N) of 78, with a mean (average) of 0.1233. The standard deviation of this variable is 0.10853.
- iii. The Return on Equity (ROE) variable has a total sample (N) of 78, with a mean (average) of 0.2551. The standard deviation of this variable is 0.30505.
- iv. The variable Net Profit Margin (NPM) has a total sample (N) of 78, with a mean (average) of 0.7126. The standard deviation of this variable is 0.68922.

Classical Assumption Test:

Data Normality Test:

To see whether the residual value obtained from the model follows a normal distribution or not, a normality test is carried out. The researcher in this case uses normal P-Plot graph analysis and Kolmogorov-Smirnov One-Sample analysis. In the normal P-P Plot graph, if the data spread around the diagonal line, then the regression meets the normality assumption, then there is no difference between the residual distribution and the normal distribution, in other words, the regression meets the normality assumption.

⁵ Source: SPSS output

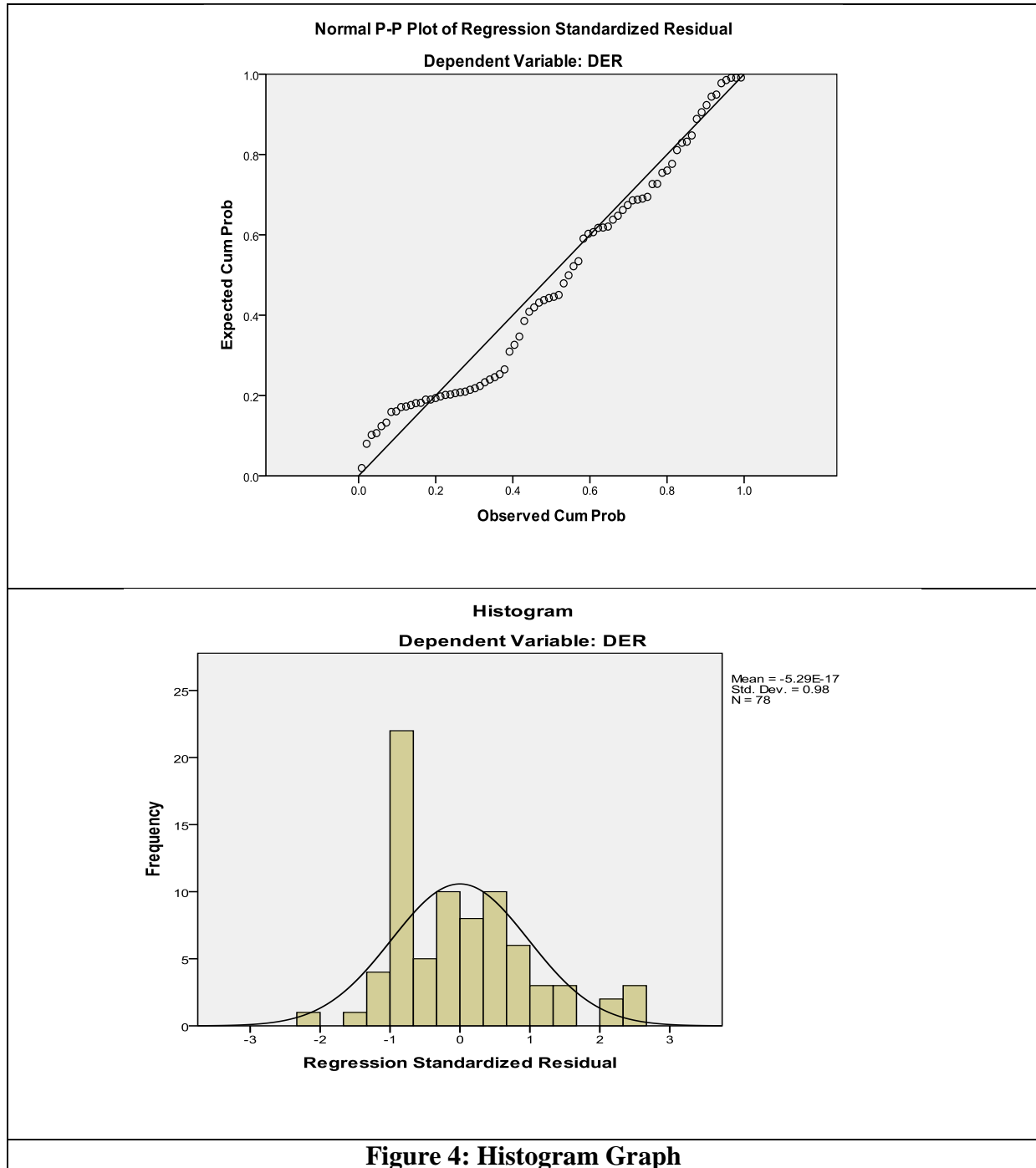


Figure 4: Histogram Graph

It can be seen in the normal P-P Plot graph in Figure 1, where the points spread out following the diagonal line, which indicates that the residuals are normally distributed. Likewise, Table 4 shows the sigma value from the Kolmogorov-Smirnov One-Sample analysis of a sig value of $0.679 > 0.05$. In addition, Figure 4.2 shows the histogram graph showing the distribution of the data following a diagonal line because it does not skew to the left or right. Thus, the residual distribution is normally distributed so that it meets the requirements of the classical assumption test and it can be said that the regression is normally distributed.

Multicollinearity Test:

To determine whether or not multicollinearity occurs in the model, it can be seen from the Variance Inflation Factor (VIF) value and the tolerance value obtained. The level of multicollinearity that can still be tolerated, namely: Tolerance > 0.10, and the value of Variance Inflation Factor (VIF) < 10. The following table presents the results of the study:

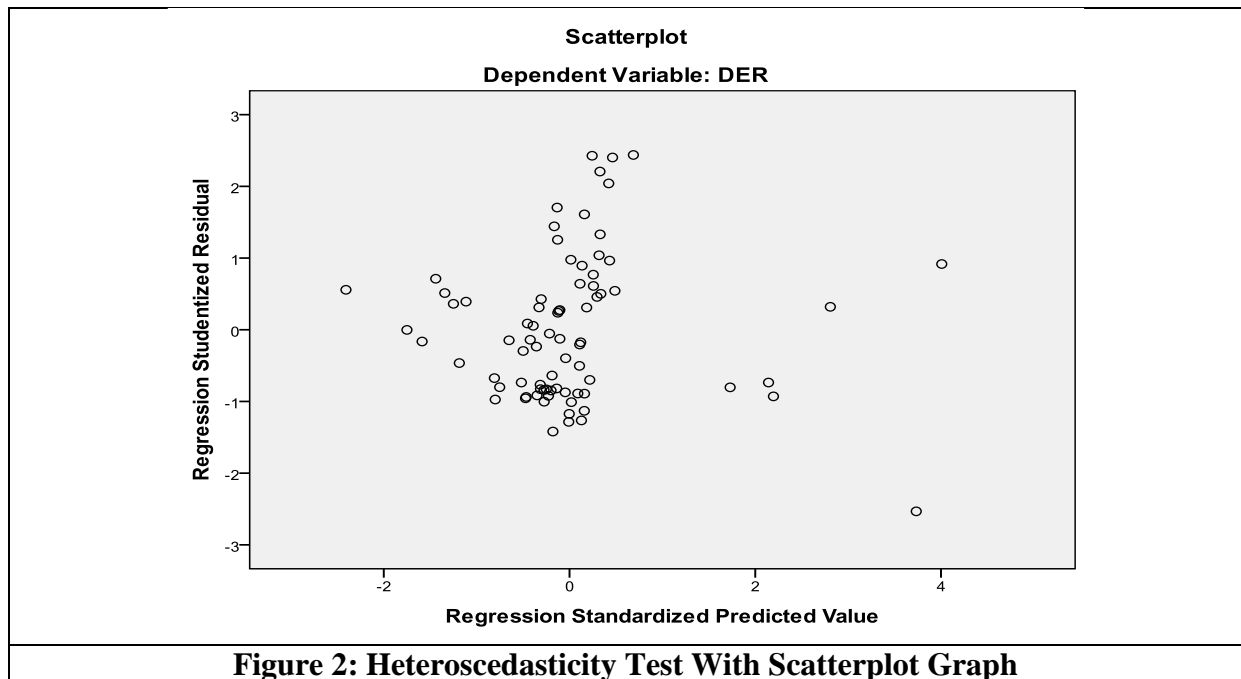
Table 4: Coefficients⁶

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	ROA	.546	1.832
	ROE	.529	1.890
	NPM	.956	1.046

The results of the calculation of the tolerance value of the three independent variables in table 4 show that the independent variable has a tolerance value > 0.10. The VIF value of the three independent variables is less than 10. It can be concluded that there is no multicollinearity between the independent variables.

Heteroscedasticity Test:

In this study, to detect the presence or absence of heteroscedasticity symptoms is to look at the graph plot generated from data processing with the SPSS program. The following is attached a scatterplot graph to analyze whether there is heteroscedasticity or homoscedasticity by observing the spread of the points on the graph:



⁶ Dependent Variable: DER

Through testing on the data above, it can be seen that the points spread randomly above 0 (zero) or below 0 (zero) on the Y-axis and tend not to form a certain pattern. This shows that there is no heteroscedasticity in the regression model.

Autocorrelation Test:

This test aims to see whether in a linear regression model there is a correlation between the nuisance error in period t and the error in period t-1. Autocorrelation arises because long successive observations throughout the year are related to each other. This is often found in time-series data. A good autocorrelation test is free from the autocorrelation test. To detect the presence or absence of autocorrelation, it is by using the Durbin–Watson test. According to Ghozali (2006), the criteria used as a benchmark for autocorrelation are as follows:

- i. If the DW value is less than 1.08, it means that there is autocorrelation.
- ii. If the DW value is between 1.08 to 1.66, it means that there is no conclusion.
- iii. If the DW value is between 1.66 to 2.34, it means that there is no autocorrelation.
- iv. If the DW value is between 2.34 to 2.92, it means that there is no conclusion.
- v. If the DW value is greater than 2.92, it means that there is autocorrelation.

Table 5: Model Summary; Durbin Watson Test Results⁷

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
Dimension 1	.646 ⁸	.418	.394	.50626	2.243

From table 5 above, it can be concluded that the D-W number is 2,242, the value is between 1.66 to 2.34, thus it can be concluded that there is no positive or negative autocorrelation or it can be concluded that there is no autocorrelation.

Regression Analysis:

To test the hypothesis, the researcher used multiple regression analysis. Based on the results of data processing with the SPSS 17 program, the following results were obtained:

Regression Equation:

In processing data using linear regression, several steps were carried out to find the relationship between the independent variable and the dependent variable, through the influence of ROA, ROE and NPM on DER. The regression results can be seen in Table 6 below:

⁷ Dependent Variable: DER

⁸ Predictors: (Constant), NPM, ROA, ROE

Table 6: Coefficients; Table of Regression Equations⁹

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.082	.102		10.615	.000
	ROA	-4.250	.720	-.709	-5.907	.000
	ROE	1.851	.260	.868	7.118	.000
	NPM	-.116	.086	-.123	-1.357	.179

Based on table 6 above, the regression equation is obtained as follows:

$$DER = 1,082 - 4,250 ROA + 1,851 ROE - 0.116 NPM$$

Explanation:

- i. The constant value of 1.082 means that if the value of the independent variables ROA (X1), ROE (X2), and NPM (X3) is zero, then the Capital Structure will increase by 1,082 points.
- ii. The regression coefficient for the ROA (X1) variable is -4.250, which means that if the ROA (X1) variable increases by 1%, there will be a decrease in the capital structure of 4.250 with the assumption that the other variables are constant or equal to zero.
- iii. The regression coefficient for the ROE (X2) variable is 1.851, which means that if the ROE (X2) variable increases by 1%, it will be followed by an increase in the capital structure of 1.851 with the assumption that other variables remain or equal to zero.
- iv. The regression coefficient for the NPM variable (X3) is -0.116, which means that if the NPM variable (X3) increases by 1%, there will be a decrease in the capital structure of 0.116 with the assumption that other variables remain or equal to zero.

Analysis of Correlation Coefficient and Coefficient of Determination:

The value of the correlation coefficient (R) indicates how big the correlation or relationship between the independent variables and the dependent variable. The correlation coefficient is said to be strong if the R-value is above 0.5 and close to 1. The coefficient of determination (R Square) shows how much the independent variable explains the dependent variable. The value of R Square is getting closer to 1, and then the independent variables provide all the information needed to predict the dependent variable. On the other hand, the smaller the R Square, the more limited the ability of the independent variables in explaining the dependent variables.

The value of R Square has a weakness, namely, the value of R Square will increase every time there is an addition of one independent variable even though the independent variable has no significant effect on the dependent variable.

⁹ Dependent Variable: DER

Table 7: Model Summary¹⁰

Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate	Durbin-Watson
1	.646 ¹¹	.418		.394	.50626	2.243

The Summary model in table 7 above shows that the coefficient value (R) is 0.646, which means that the correlation or relationship between capital structure and the independent variable is strong because it is more than 0.5. The Adjusted R Square number or the coefficient of determination is 0.394 or 39.4% indicating that the variation of the three independent variables (ROA, ROE and NPM) can explain the dependent variable by 39.4% and the remaining 60.6% is explained by other variables that are not included in this study. The Standard Error of Estimate (SEE) is 0.50626, which means the larger the SEE will make the regression model less precise in predicting the dependent variable.

Hypothesis test:

To find out whether the independent variable in the regression model affects the dependent variable, then a test is carried out using the Partial Test (t-test) and Simultaneous Test (F-test).

Partial Test (t-test):

The t-test was used to test the significance of the constant and each independent variable. Based on the results of processing SPSS version 18, the following results were obtained:

Table 8: Partial Test Table (t-test); Coefficients¹²

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.082	.102		10.615	.000
	ROA	-4.250	.720	-.709	-5.907	.000
	ROE	1.851	.260	.868	7.118	.000
	NPM	-.116	.086	-.123	-1.357	.179

The ROA variable shows that is -5.907 with a significance value of 0.000, while is (-1.993), so $> (-5.907) < (-1.993)$. The significance level shows the number <0.05 ($0.00 < 0.05$), it can be said that the Return on Assets (ROA) variable has a negative and significant effect on the capital structure of consumption companies listed on the IDX.

- i. The ROE variable shows of 7.118 with a significance value of 0.000, while is 1.993 so that $> (7.118 > 1.993)$. The significance level shows the number <0.05 ($0.000 < 0.05$), it can be said that the Return on Equity (ROE) variable has a significant effect on the capital structure of consumption companies listed on the IDX.

¹⁰ Dependent Variable: DER

¹¹ Predictors: (Constant), NPM, ROA, ROE

¹² Dependent Variable: DER

- ii. The NPM variable shows that is -1.357 with a significance value of 0.179, while is -1.993 so that $> (-1.357) > (-1.993)$. The significance level shows the number > 0.05 ($0.179 < 0.05$), it can be said that the Net Profit Margin (NPM) variable does not affect the capital structure of consumption companies listed on the IDX.

Simultaneous Test (F-test):

To see the effect of Return on Assets and Return on Equity on the company's capital structure can simultaneously be calculated using the F-test. Based on the results of data processing with the SPSS version 17 program, the results obtained as shown in table 9 below:

Table 9: Simultaneous Test Table (F-test); ANOVA¹³

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	13.611	3	4.537	17.703	.000 ^{14a}
	Residual	18.966	74	.256		
	Total	32.577	77			

From the ANOVA test or F-test, it can be obtained that is 17.703 with a significance level of 0.000, while is 2.73 with a significance level of 0.05. Based on these results, it can be concluded that Return on Assets (ROA), Return on Equity (ROE) and Net Profit Margin (NPM) simultaneously have a significant effect on capital structure because $> (17.703 > 2.70)$ and research significance < 0.05 ($0.000 < 0.05$).

From the results of simultaneous testing, it is known that Return on Assets, Return on Equity and Net Profit Margin have a simultaneous effect on capital structure. This is indicated by 17.703 which is greater than 2.70. Adjusted R Square value of 0.394 or 39.4%, indicating that variations of Return on Assets, Return on Equity and Net Profit Margin can explain the capital structure variable while the remaining 60.6% is explained by other variables not included in this study. The results of this study are in line with the results of previous research conducted by Situmorang (2010) which states that asset structure, profitability and firm size simultaneously affect the capital structure. Simanjuntak (2019) also states that asset structure, company growth, profitability, company size, and company age simultaneously affect the capital structure. It is also aligning with Nurmadi's study (2019) which states that company size, asset structure, company growth, profitability, operating leverage, ownership structure and business risk simultaneously affect the capital structure.

Return on Assets partially has a negative and significant effect on the capital structure of consumer goods companies listed on the IDX in 2019-2020. ROA has a great influence on the company's management decisions in preparing the company's capital structure. This is indicated by of -5.907 with a significance value of 0.000 while is -1.993 so that $< (-5.907) < (-1.993)$. The ROA regression coefficient shows -4.250 indicating that for every increase in the company's ROA by one unit, the capital structure seen from the value of Y will decrease by 4.250 assuming other variables remain. The results of this test are not in line with the results of Simanjuntak's (2019) research which states that profitability (Return on Assets) has a significant influence on the capital structure of manufacturing companies listed on the Indonesia Stock Exchange. Investors view the company's profitability as seen from the rate of return on investment provided. The greater the

¹³ Dependent Variable: DER

¹⁴ Predictors: (Constant), NPM, ROA, ROE

ROA, the greater the company's opportunity to obtain company funding sources. However, companies with high returns will use relatively small debt.

Return on Equity partially has a significant effect on the capital structure of consumer goods companies listed on the IDX in 2019-2020. This is indicated by 7.118 with a significance value of 0.000 while is 1.993 so that $> (7.118 > 1.993)$. The ROE regression coefficient shows 1.851 indicating that for every one-unit increase in the company's ROE, the capital structure seen from the Y value will increase by 1.851 assuming other variables remain. This study is not in line with the results of Nurmadi's research (2019) which states that profitability (Return on Equity) does not have a significant effect on the capital structure of manufacturing companies listed on the Indonesia Stock Exchange. Companies with low-profit growth will try to attract funds from outside, to get investment at the expense of most of their profits, so companies with low-profit growth will further strengthen the relationship between DER which has a negative effect on profitability.

Net Profit Margin (NPM) partially has no significant effect on the capital structure of consumer goods companies listed on the IDX in 2019-2020. This is indicated by of -1.357 with a significance value of 0.179 while is -1.993 so that $> (-1.357) > (-1.993)$. The NPM regression coefficient shows -0.116 indicating that for every increase in the company's NPM by one unit, the capital structure seen from the value of Y will decrease by 0.116 assuming other variables remain.

Conclusions and Suggestions

From the results of the analysis that has been discussed, researchers can draw the following conclusions:

- i. Simultaneously, the results of this study indicate that there is a significant effect of Return on Assets, Return on Equity and Net Profit Margin. This can be seen from the probability value (significance) of the simultaneous test (F test) is 0.000 (less than 0.05). The results show that these results are in line with previous research conducted by Situmorang (2010), Simanjuntak (2019), Nurmadi (2019) where companies with a good capital structure will have a positive effect, both on the company's overall operations and the views of outsiders such as investors and creditor.
- ii. Partially, the results of this study indicate that Return on Assets has a significant effect on the capital structure of consumer goods companies listed on the IDX.
- iii. The test results show that the results of this study are not in line with the research of Situmorang (2010), Simanjuntak (2019) and Nurmadi (2019) which state that Return on Assets has a significant effect on the capital structure of manufacturing companies listed on the Indonesia Stock Exchange. Partially, the results of this study indicate that Return on Equity has a significant influence on the capital structure of consumer goods companies listed on the IDX. The test results show that the results of this study are in line with Nurmadi's research (2019) which states that Return on Equity does not have a significant effect on the capital structure of manufacturing companies listed on the Indonesia Stock Exchange.
- iv. Net Profit Margin partially has no significant effect on the capital structure of consumer goods companies listed on the IDX in 2019-2020. This is indicated by of -1.357 with a significance value of 0.179 while is -1.993 so that $> (-1.357) > (-$

1.993). The results of this study indicate that the Net Profit Margin does not have a significant effect on the capital structure of consumer goods companies listed on the IDX.

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