

**THE INFLUENCE OF CAPITAL STRUCTURE,
PROFITABILITY AND COMPANY SIZE ON COMPANY
VALUE IN THE AUTOMOTIVE INDUSTRY SECTOR LISTED
ON THE IDX 2014-2018**

Wahyu Leman, SE., M.Ak

Sekolah Tinggi Ilmu Ekonomi Indonesia, Jakarta

Dr. Iman S. Suriawinata, SE., MBA., M.Com (Hons), Ak., CA

Sekolah Tinggi Ilmu Ekonomi Indonesia, Jakarta

Irvan Noormansyah, BA (Hons), MA, Ph.D

Sekolah Tinggi Ilmu Ekonomi Indonesia, Jakarta

Abstract

This study aims to determine the effect of capital structure on firm value, the effect of profitability on firm value, and to determine the effect of company size on firm value in the automotive industry sector listed on the Stock Exchange in 2014-2018.

This study aims to determine the causal correlation between 2 or more variables. Meanwhile, based on the type of data, this research is categorized as a causality quantitative study, namely research to describe the state of the company which is carried out by analysis based on the data obtained. The dependent variable in this study is firm value, while the independent variable is Capital Structure, Profitability, and Company Size. In this study using secondary data obtained from Automotive Industry Sector Companies Listed on the IDX in 2014-2018. The objects in this study are capital structure (X1), profitability (X2) and company size (X3) and their influence on firm value (Y). The population used in this study were all manufacturing companies in the automatic industrial sub-sector listed on the Indonesia Stock Exchange, totaling 18 companies. Sampling in this study was carried out using purposive sampling method.

The results of this study indicate that first, capital structure affects firm value. This indicates that increasing DER will result in good management, which can increase company profits, thereby increasing company value. Second, profitability has a negative effect on firm value. This shows that even though the company has suffered losses in the past few years, investors have confidence in the business prospects of companies in the automotive industry sector in the future if managed properly and professionally. Third, company size has a negative effect on firm value, meaning that the bigger a company is, the less efficient it is in managing its resources, and the more complicated its management.

Keywords: Capital Structure, Profitability, Firm Size, Firm Value

I. INTRODUCTION

The company's goal is to maximize shareholder wealth or maximize company value. The factors that influence firm value are capital structure, profitability and firm size. One indicator of company value is Tobin's Q. Researchers will use Tobin's Q value as an indicator of firm value. All companies need venture capital to meet the needs of their business activities. This capital can be obtained from internal and external companies in the form of loans. This balance of internal capital (own capital) and foreign capital (external capital) is known as the capital structure. Capital structure affects firm value. The purpose of the company's funding policy in determining the debt and equity ratio is to maximize firm value. Financial managers must weigh the benefits of the costs of the selected funding source. There are 2 categories of funding sources within the company, namely internal sources of funding obtained from retained earnings and depreciation of fixed assets, and external sources of funds obtained from creditors who provide loans (debt). The optimal capital structure is a composition that is able to optimize risk and return alignment so as to maximize share prices (Utami; 2019).

In general, the progress of the level of industrial development in a country or region, it can be seen that there are more and more types of industries. The automotive industry sector is currently facing very tough competition with the development of automotive technology that is developing very fast and rapidly demanding a lot of innovation and investment costs for its development. Companies are required to further improve financial performance in order to win the existing competition. Performance measurement is one of the most important in the planning and control process. Through performance measurement, companies can choose the optimal strategy and capital structure so as to increase firm value.

A phenomenon that has occurred during the last 4 years, the composite stock price index (IHSG) of the automotive industry sector for the 2014-2017 period can be seen in the table below:

Table 1. Automotive Industry Stock Prices 2014-2017

CODE	2014	2015	2016	2017
ASII	7425	6000	8275	8300
IMAS	4000	2365	1310	840
AUTO	4200	1600	2050	2060
GJTL	1425	530	1070	680
MASA	420	351	270	280
GDYR	1600	2725	1920	1700
BRAM	5000	4680	6675	7375
NIPS	487	425	354	500
INDS	1600	350	810	1260
PRAS	204	125	170	220
LPIN	1550	1344	1350	1305
SMSM	1188	1190	980	1255

Source: www.idx.co.id

For the table above, it can be explained that the stock prices in 2015 experienced a decline in almost all automotive companies, this was due to the increase in interest rates, the slowing world economy and the outflow of foreign funds that also put pressure on the stock market. Meanwhile, the JCI growth target this year is 5.5% to 4.7%, thus reducing the company's value.

A fundamental aspect that is often considered by investors in assessing a company's financial performance is through information derived from financial reports and stock prices. The benefits will be optimal for investors if investors can further analyze through financial ratio analysis. Many previous studies have conducted research on the effect of financial ratios on company value.

The value of the company (corporate value) is formed from investors' perceptions of the level of success of the company which is often associated with the stock price, maximizing company value is very important for the company, because maximizing company value is the same as maximizing company goals. One indicator of company value is Tobin's Q.

The factors that influence firm value are capital structure, profitability and firm size. Capital structure is the business capital needed by a company to meet the needs of its business activities. This capital can be obtained from internal and external companies in the form of loans. This balance of internal capital (own capital) and foreign capital (foreign capital) is known as the capital structure. Capital structure affects firm value. The purpose of the company's funding policy in determining the debt and equity ratio is to maximize firm value. Financial managers must weigh the benefits of the costs of the selected funding source. There are 2 categories of funding sources within the company, namely internal sources of funding obtained from retained earnings and depreciation of fixed assets, and external sources of funds obtained from creditors who provide loans (debt).

Profitability is the company's ability to generate profits from its business activities. Firm value is determined by its ability to generate profits. Dewi, (2013) stated that profitability has a significant effect on firm value. If profitability increases, it is expected that dividends distributed will also increase, an increase in the amount of dividends distributed, will increase the share price, and automatically the company's value will increase. If the retained earnings are sufficient to finance the company's activities, this will have a positive impact on firm value. Investing in the present to get results in the future.

Profitability ratios that can be used are Return On Assets and Return On Equity which are more popularly known as ROA and ROE. Syamsuddin (2011: 74) says, Return On Asset is a measure of the company's overall ability to generate profits using all assets owned by the company. The size of the company also has a relationship with the value of a company. Dewi (2013) states that company size has no effect on firm value. The size of the company is a reflection of the total assets of the company, where companies are grouped into 2 scales, namely, large-scale companies and small-scale companies. However, there are also researchers who say that company size has a significant negative effect on firm value. Companies with a large size will have access to wider sources of funding, making it easier to obtain capital loans, which is why companies with large sizes have the ability to survive in the industry and have a greater chance of winning in the competition (Lisa and

Jogi, 2013). If the size of the company has larger total assets, the management of the company will more freely use the company's assets to control the company while increasing the value of the company.

The reason the researchers chose the title "The Influence of Capital Structure, Profitability, Company Size on Company Value" in the automotive industry sector was due to the phenomenon of slowing sales growth in the automotive sector from 2015 to 2019. Slowing sales growth in the automotive sector definitely had an impact on company value. Based on the results of previous research, there are several factors that have the potential to significantly influence firm value, these factors are; capital structure, profitability and company size. Therefore, the slowdown in sales growth is not the only factor affecting firm value.

II. LITERATURE REVIEW

2.1 Review Research

The first research was conducted by Ustiani (2015) who conducted research on the Effect of Capital Structure, Managerial Ownership, Investment Decisions, Dividend Policy, Funding Decisions and Profitability on Firm Value (Study on Financial and Banking Companies on the IDX 2009-2013) which aims to analyze the influence of capital structure, managerial ownership, investment decisions, dividend policy, funding decisions and profitability on the value of financial and banking companies listed on the Indonesia Stock Exchange. The research sample in the study was 39 banking companies listed on the Indonesia Stock Exchange using purposive sampling method, namely the sample selection method using certain criteria, namely (1) banking companies that published annual financial reports consistently in 2009- 2013, (2) banking companies that issue annual financial statements ending on December 31. The results showed that (1) there is no significant influence between capital structure on firm value, (2) there is no significant effect between managerial ownership on firm value, (3) there is no significant effect between investment decisions on firm value, (4) there is a significant and positive influence between dividend policy on firm value, (5) there is no significant influence between funding policy on firm value, (6) there is no significant effect between profitability on firm value.

The second study was conducted by Lumoly, et.al. (2018) with the aim of examining the effect of liquidity, company size and profitability on the value of companies in the metal processing industry sector and the like on the IDX for the period 2013 to 2017, which involved five companies as samples of research objects from 16 populations of metal companies and the like. Determination of the sample using purposive sampling technique. After being analyzed by multiple linear regression methods, t test and F test, and analysis of the coefficient of determination (R²). After a partial test, the liquidity and firm size variables had no effect on the company value proxied using PBV in the five metal companies. For the profitability variable which is proxied by using ROE, it has an effect on firm value (PBV). In tests carried out simultaneously, liquidity proxied using Current Ratio, company size proxied using Size and profitability proxied using Return On Equity has an effect on firm value proxied using Price to Book Value. The conclusion of this study, ROE should be maintained by not ignoring 2 other variables, namely CR and Size in order to increase firm value.

The third research was conducted by Rumondor, et.al. (2015) which states that the main objective of a company is to maximize profits or wealth, especially for its shareholders, this can be realized by increasing or maximizing the market value of the company's share price. There are several factors that influence firm value. This study only examines 3 variables, namely Capital Structure, Company Size and Company Risk. This study aims to examine the effect of capital structure, firm size and risk on firm value, simultaneously or partially. The research sample is plastic and packaging companies listed on the Indonesia Stock Exchange for the period 2010-2013 with a total of 8 companies using the purposive sampling method. The analytical method used is associative with classical assumption tests and hypothesis testing as well as multiple regression using the SPSS program. The results showed that simultaneously all independent variables in this study had a significant effect on Firm Value. Capital structure has a positive and significant effect on Firm Value, Firm Size has a negative and insignificant effect on Firm Value, Firm Risk has a negative and insignificant effect on Firm Value. Investors should be more careful in choosing a company, to invest their capital by looking at the Capital Structure, Company Size and Company Risk to increase the expected stock return.

The fourth research was conducted by Michael and Sampurno (2018) with the title Analysis of Factors Affecting Capital Structure (Case Study of Food and Beverage Companies Listed on the IDX for the Period of 2012 - 2016). Stating that the Capital Structure or in English is called the debt to equity ratio is a financial ratio that compares total debt to capital. Capital structure has the use of being the reference management of a company in making decisions about working capital to be used by the company itself and funded by external / debt and capital funded by internal companies. The research was conducted at companies engaged in the food and beverage sector. This research also looks deeper into the relationship between capital structure and profitability, asset structure, company size, sales growth and current ratios. The method used is multiple regression analysis with the classical assumption test as a statistical requirement. The data used in this study consisted of annual data from companies related to financial reports in the 2012-2016 period. Samples were divided according to the objectives of the study conducted at 14 food and beverage companies. The results showed that simultaneously the character of profitability, asset structure, current ratio, company size and sales growth influenced the performance of the capital structure by 43.3%. In a partial test of capital structure. Profitability, firm size, asset structure and sales growth have been positive and have no significant effect on the performance of capital structure. Meanwhile, the current ratio has a significant and positive effect on the performance of the capital structure.

The fifth research was conducted by Sawitri and Lestari (2015) with the title The Influence of Business Risk, Company Size and Sales Growth on Capital Structure Stating that long-term preferred stock and common stock. To find out what can affect the capital structure, several factors need to be considered, such as Business Risk, Company Size, and Sales Growth. This study aims to determine the effect of Business Risk, Company Size, and Sales Growth on Capital Structure. This research was conducted on the IDX using a sample of 12 companies obtained

based on purposive sampling method and the data were analyzed using multiple linear regression analysis techniques. Based on the analysis, it is found that business risk and company size do not have a significant effect on capital structure, while sales growth has a positive and significant effect on the capital structure of the automotive industry on the Indonesia Stock Exchange for the period 2010-2013.

The sixth study, Sibilkov (2018) entitled Asset Liquidity and Capital Structure. Stating that this study examines alternative theories about the effect of asset liquidity on capital structure. Using data from a broad sample of US public companies, I find that leverage is positively associated with asset liquidity. Further analysis reveals that the relationship between asset liquidity and secured debt is positive, whereas the relationship between asset liquidity and debt insecure is curved. The results are consistent with the view that the cost of financial hardship and inefficient liquidation is of economic importance and it affects capital structure decisions. Moreover, the results are consistent with the hypothesis that the cost of managerial discretion increases with asset liquidity.

2.2 Signal Theory, Agency Theory and MM Theory and Trade Off

In general, signal theory talks about how one signal is very valuable and useful, while other signals are useless. Signal theory looks at how signals related to the quality are reflected in them and what elements of the signal or surrounding community make that signal attractive. This theory also alludes to what will happen when the signal is not completely convincing or how much uncertainty can be tolerated before the signal becomes completely meaningless. Signal theory explicitly reveals evidence that corporate insiders generally have better information about the company's future prospects than outsiders (investors, creditors and government and shareholders). The company has advantages in terms of access to information compared to outsiders who have an interest in the company. This condition is known as information asymmetry (inequality).

Agency theory explains the relationship between company financial performance and firm value because companies that have good financial performance will certainly have an effect on company value and will produce good business prospects in the future.

The MM theory was initiated in 1958, consisting of 2 types, namely: (i) MM theory with tax and (ii) MM theory without tax. There are fundamental similarities between the two types of MM theory, namely the value of the capital structure will not affect the value of the company, and the value of the company that owes it is the same as the value of the company that does not owe, which means that any change in the capital structure will not affect the value of the company and firm value is not influenced by how the company combines debt and capital to finance the company.

The trade-off theory predicts that the target debt ratio will vary from one firm to another. Companies with abundant tangible assets and taxable profits that must be protected should have a high debt ratio target ratio. Companies with low profitability and risky intangible assets should depend on funding that comes from equity.

2.3 Firm Value

All companies have the same goal, namely, to maximize the value of their company in the eyes of investors. Five kinds of company values, namely: (1). Liquidity value. Is the amount of money that can be realized if a company or a group of assets are sold separately. The going concern value is the company's value if it is sold as a continuing business operation. (2). Nominal value. It is an arbitrarily (separately) low estimate of company stock. Serves as a determinant of the value of ordinary shares issued. (3). Book value. Is the quotient between the number of shares issued and the owner's funds. (4). Market value. Is the price followed on the stock exchange for public companies or the estimated price for non-public companies. Every day this figure changes in response to actual and anticipated results and overall or sectoral market sentiment as reflected in the stock market index.

2.4 Capital Structure

This theory explains whether there is an effect of capital structure on firm value? A company is said to have a good capital structure if the capital structure is able to maximize the share price which is a representation of the company value. In order to determine the real cost that must be borne by the company to obtain capital, the concept of cost is necessary. One of the popular cost concepts used is the WACC Weighted Average Cost of Capital model. The calculated cost of capital is the cost of capital after tax because the after-tax cash flows are the most relevant for investment decisions. WACC is calculated by the formula:

$$\text{WACC} = [W_d \times K_d (1-\text{tax})] + [W_p \times K_p] + [W_r \times K_r] + [W_e \times K_e]$$

Information:

WACC = weighted average cost of capital

W_d = the proportion of debt to equity

W_p = the preferred share's proportion of capital

W_r = the proportion of retained earnings shares of capital

W_e = the proportion of new common stock

K_d = debt costs

K_p = preferred stock costs

K_r = the cost of retained earnings

K_e = cost of new common stock

2.5 Profitability

According to the pecking order theory, generally companies that have a high profit rate use relatively small debt. A high rate of return allows the company to obtain most of its funding from retained earnings. According to Sartono (2010: 58), profitability is the company's ability to earn profits in relation to sales, total assets and its own capital. Profitability ratio is a ratio used to assess a company's ability to seek profit. The rate of return on assets is the ratio of profitability to assess the ability of the company's asset management that is used to generate profits efficiently. In other words, this ratio measures how efficiently the management of

the company's assets is used to generate profits. ROA is calculated by dividing net income by total assets.

$$\text{ROA} = \frac{\text{Net Profit After Tax}}{\text{Total Assets}}$$

2.6 Company Size

Riyanto (2011: 279) states that the size of a company also affects the company's capital structure. The size of the company can also affect the capital structure because the larger the company will tend to use a larger debt. A large company will be safer in obtaining debt because the company is able to fulfill its obligations with wider diversification and has a stable cash flow, and this means that its capital structure will also improve.

Brigham and Houston (2011: 117) state that company size is the average total net sales for the year concerned until several years later. In this case the sales are greater than the variable costs and fixed costs, it will be obtained the amount of income before tax. Conversely, if sales are smaller than variable and fixed costs, the company will suffer losses. Halim (2007: 93), the greater the size of a company, the greater the tendency to use foreign capital. This is because large companies also need large funds to support their operations and one of the alternatives for fulfillment is foreign capital if their own capital is not sufficient.

From the references above, it can be concluded that the size of the company will affect the capital structure based on the fact that large companies can easily finance their investment through the capital market because they have high sales growth rates and little asymmetric information occurs.

$$\text{Size} = \text{Ln} (\text{Total Assets})$$

2.7 Relationship Between Research Variables

Capital Structure on Firm Value

In the 1950's, Modigliani and Miller challenged the traditional view of the structure of capital. They argue that capital structure does not affect firm value. Then in the early 1960s, Modigliani and Miller included the tax factor in their analysis so that they concluded that the value of companies with debt would be higher than the value of companies without debt. The increase is due to tax savings. The trade-off theory explains that if the position of the capital structure is below the optimal point, any additional debt will increase the firm's value. Conversely, if the position of the capital structure is above the optimal point, each additional debt will decrease the firm's value. Therefore, assuming the optimal capital structure target point has not been achieved, the trade-off theory predicts a positive relationship to firm value. Research conducted by Manoppo (2016) also proves that increasing debt (DER) can increase firm value as long as the company is able to balance the costs and benefits arising from this debt.

Profitability on Firm Value

High profitability reflects the company's ability to generate high returns for shareholders. The greater the profit obtained, the greater the company's ability to pay its dividends, and this has an impact on the increase in company value. With a high profitability ratio owned by a company, it will attract investors to invest in the

company. Based on the results of research conducted by Arihta (2020), ROA has a significant positive effect on share prices in wholesale sub-sector companies listed on the IDX for the 2015-2018 period.

Firm Size on Firm Value

Company size is one of the factors affecting access to capital. This is because large companies can access the capital market relatively easily, so that the constraints on financing projects that have a positive NPV implemented by the company are easier to overcome. Thus, the company value can be increased. But on the other hand, large companies are generally less efficient in management, so that it can reduce company value. Companies that are growing to be big are an indication that companies will get easy access to capital loans, in addition, large companies are also easier to meet the requirements for accessing the capital market, registering on the IDX so that it is easier to get access to capital from investors. This is in line with research conducted by Prasetyorini (2013) on the basic and chemical industries on the IDX from 2008 to 2011 which shows an increase in company value as the size of the company is getting bigger.

III. RESEARCH METHOD

This study aims to determine the causal relationship (correlation) between 2 or more variables, namely the independent or independent variable on the dependent or dependent variable (Sugiyono 2016: 39). Meanwhile, based on the type of data, this study is categorized as a causal quantitative study, namely research to describe the state of the company which is carried out by analysis based on the data obtained. The dependent variable in this study is firm value, while the independent variable is Capital Structure, Profitability, and Company Size. Types of secondary data are data obtained from other parties who have compiled them first. In this study using secondary data obtained from Automotive Industry Sector Companies Listed on the IDX in 2014-2018. The objects in this study are capital structure (X1), profitability (X2) and company size (X3) and their influence on firm value (Y).

The population used in this study were all manufacturing companies in the automatic industrial sub-sector listed on the Indonesia Stock Exchange, totaling 18 companies. The sample in this study is the annual financial statements of all automotive industry sector companies listed on the IDX from 2014 to 2018. Sampling in this study was conducted using a purposive sampling method. Purposive sampling is a sampling technique with certain considerations. The reason for selecting samples using this method is because not all samples have the criteria according to what the authors have determined. The criteria for researchers in taking samples in this study are as follows: (1). The sample companies are automotive companies listed on the Indonesia Stock Exchange that issue audited financial reports and annual reports for the period ended December 31 during the 2014-2018 period. (2). Companies that can meet all the data needed in research. The number of automotive companies during the 2014-2018 period was 18 companies, there were 5 companies that did not meet the sample criteria so that from the previously owned population, 13 companies were obtained during the 5 years of the study period.

The Influence of Capital Structure, Profitability and Company Size on Company Value in the Automotive Industry Sector Listed on the IDX 2014-2018

This research uses descriptive statistical analysis method and classical assumption test. Descriptive statistical analysis was used to determine the dispersion and distribution of data. Meanwhile, for the purposes of testing the feasibility of the regression model which will be used to test the research hypothesis, the researcher uses classic assumption testing which includes tests for normality, heteroscedasticity, autocorrelation and multicollinearity which aims to check the accuracy of the model. Data analysis obtained in this study will use a statistical data processing program known as Eviews Software Version 10.

IV. RESEARCH RESULTS AND DISCUSSION

This study uses data sourced from the financial statements of companies that have gone public and have been audited during the 2014-2018 period. Based on the sample determination criteria, a total sample of 12 manufacturing companies in the automotive sub-sector was selected which had data according to the specified criteria. The sample criteria are as follows:

Table 2. Sample Selection

No.	Criteria	Total
1.	Automotive Industry Sub-Sector Manufacturing Companies listed on the Indonesia Stock Exchange.	18
2.	Automotive Industry Sub-sector Manufacturing Companies that do not publish complete financial reports for 2013-2017.	-6
3.	The number of samples of manufacturing companies in the automotive industry.	12
4.	Number of years of research.	5
5.	The number of samples to be used for research.	60

Source : *Indonesian Capital Market*, www.idx.co.id

From the data population of 18 companies, the selected sample is 12 companies. The following are the names of the companies selected to be the object of research.

Table 3. Sample Company Name

No.	Company Name	Code
1.	Astra International Tbk.	ASII
2.	Astra Otoparts Tbk.	AUTO
3.	Gajah Tunggal Tbk.	GJTL
4.	Goodyear Indonesia Tbk.	GDYR
5.	Indo Kordsa Tbk.	BRAM
6.	Indomobil Sukses Internasional Tbk.	IMAS
7.	Indospring Tbk.	INDS
8.	Multiprima Sejahtera Tbk.	LPIN
9.	Multistrada Arah Sarana Tbk.	MASA
10.	Prima Alloy Steel Universal Tbk.	PRAS

The Influence of Capital Structure, Profitability and Company Size on Company Value in the Automotive Industry Sector Listed on the IDX 2014-2018

11.	Selamat Sampurna Tbk.	SMSM
12.	PT. Tunas Ridean Tbk.	TURI

Source: *Indonesian Capital Market*, www.idx.co.id

4.1 Descriptive Statistic

In this study, descriptive analysis was used to describe all the research variables of the sample companies during the study period. The results of descriptive statistics are presented in the table below:

Table 4. Descriptive Statistic Results

	TOBIN_S_Q	DER	ROA	SIZE (RpMilyar)
Mean	1.1776	0.3896	0.0549	28,325
Maximum	4.2551	3.1802	0.7160	333,625
Minimum	0.3385	0.0171	-0.1340	186
Std. Dev.	0.7599	0.5525	0.1115	72,886

Source: Appendix Eviews 10, secondary data processed (2020)

4.2 Classic Assumption Test

1. Multicollinearity Test

The multicollinearity test aims to test whether the regression model finds a high or perfect correlation between the independent variables. A good regression model should not have a correlation between the independent variables. The multicollinearity test between variables can be identified by using the correlation value between independent variables. The model is declared free from multicollinearity if the VIF value is <10. The following are the multicollinearity test results in the table below.

Table 5. Multicollinearity Test Results

Variance Inflation Factors
Date: 03/29/20 Time: 21:24
Sample: 1 60
Included observations: 60

Variable	Coefficient	Uncentered	Centered
	Variance	VIF	VIF
C	0.183472	22.52368	NA
DER	0.031002	1.720229	1.142407
ROA	0.756765	1.416685	1.136227
SIZE	0.000595	21.82011	1.036685

Source: Appendix Eviews 10, secondary data processed (2020)

Based on the table above, it shows that the centered VIF value of each is below 10, thus that between the independent variables there is no multicollinearity.

2. Correlation Test

a. Autocorrelation Test

The autocorrelation test aims to test whether in the linear regression model there is a correlation between confounding errors in a certain period with errors in the previous period. If there is a correlation, it is called an autocorrelation problem. Regression models are performed using the test. Durbin Watson. The following is the autocorrelation test in the table below:

Table 6. Autocorrelation Test Result

DU	1.6889
DW	0.6429
4-DU	2.3111

Source: Appendix Eviews 10, secondary data processed (2020)

Based on the table above, it can be seen that the Durbin-Watson (DW) value of the regression model is 0.6429 smaller than the value of $du = 1.6889$ and DW is smaller than the value $(4du) = 2.311$, so it can be concluded that there is an autocorrelation problem in the model.

b. Residual Cross-Section Dependence (correlation) Test

Testing the next correlation test in this study using the residual Cross-Section Dependence (correlation) Test and as follows:

Table 7. Correlation Test Results

Residual Cross-Section Dependence Test

Null hypothesis: No cross-section dependence (correlation) in Residuals

Equation: Untitled

Periods included: 5

Cross-sections included: 12

Total panel (unbalanced) observations: 60

Test	Statistic	d.f.	Prob.
Breusch-Pagan LM	76.88528	66	0.1692
Pesaran scaled LM	0.947442		0.3434
Pesaran CD	0.907067		0.3644

Source: Appendix Eviews 10, secondary data processed (2020)

Based on the table above, it is known that the correlation test results with the residual cross-section dependence test do not occur correlation problems between companies because the probability value is > 0.05 .

3. Heteroscedasticity Test

In this study, the Heteroscedasticity Test was carried out using the Breusch Pagan Test, if the probability value of chi-square is $>$ than 0.05, there is no heteroscedasticity problem. The following are the results of the heteroscedasticity test in the table below:

Table 8. Cross-Section Heteroscedasticity Test Results

Panel Period Heteroskedasticity LR Test
 Null hypothesis: Residuals are homoskedastic
 Equation: UNTITLED
 Specification: TOBIN_S_Q C DER ROA SIZE

	Value	df	Probability
Likelihood ratio	111.9518	12	0.0000

Source: Appendix Eviews 10, secondary data processed (2020)

It can be seen from the results of the output above that the probability value is $0.000 < 0.05$, which means that the data analyzed in this study is based on the Cross-section Heteroscedasticity LR test, there is a heteroscedasticity problem. Then the test is continued with the Panel Period Heteroskedasticity LR Test with the following results:

Table 9. Periodic Heteroscedasticity Test Results

Panel Period Heteroskedasticity LR Test
 Null hypothesis: Residuals are homoskedastic
 Equation: UNTITLED
 Specification: TOBIN_S_Q C DER ROA SIZE

	Value	df	Probability
Likelihood ratio	16.54063	12	0.1677

Source: Appendix Eviews 10, secondary data processed (2020)

It can be seen from the results of the output above that the probability value is $0.1674 < 0.05$, which means that the data analyzed in this study is based on the Panel Period Heteroscedasticity LR test, there is no heteroscedasticity problem.

4.3 Selection of Panel Data Estimation Method

The estimation method used in this study is to use the Hausman test. The Hausman test is carried out for a more precise estimation method between Fixed Effects than Random Effects. If the Hausman test shows the output prob. Value > 0.05 , then the method chosen is the Random Effect. However, if the Hausman test shows the prob value. < 0.05 , the correct method is Fixed Effect.

Table 10. Hausman Test Result

Correlated Random Effects - Hausman Test
 Equation: Untitled
 Test cross-section random effects

Test Summary	Chi -Sq. Statistic	Chi -Sq. d.f.	Prob.
Cross-section random	38.730219	3	0.0000

Source: Appendix Eviews 10, secondary data processed (2020)

From the results of the Hausman Test above the prob value. the value of is 0.0000 which means less than 0.05. Thus, based on the results of the Hausman Test, the panel data regression model that is more appropriate is the fixed effect model (FEM).

4.4 Significance Test

After performing the classical assumption test, it can be concluded that the data in this study did not occur multicollinearity in the regression model, there was an autocorrelation problem. The results of the Heteroscedasticity test showed that there was a heterodaskesity problem caused by the cross section data. Therefore, the FEM regression model is estimated using the TLS (General Least Square) method.

Table 11. Fixed Effect Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.173619	0.377948	0.459373	0.6470
DER	-0.121837	0.082437	-1.477941	0.1426
ROA	-0.229407	0.059817	-3.835125	0.0002
SIZE	0.203796	0.121259	1.680658	0.0960
R-squared	0.281925	F-statistic		9.815291
Adjusted R-squared	0.253202	Prob(F-statistic)		0.000001

Source: Appendix Eviews 10, secondary data processed (2020)

4.5 Coefficient of Determination

Based on the results of the fixed effect model regression output, the adjusted R^2 value is 0.8997. This means that the ability of the DER (X1), ROA (X2) and SIZE (X3) variables in explaining the variation of the TOBIN'S Q (Y) variable is 89.97%, while the remaining 10.03% is explained by other independent variables. which were not included in this research model.

4.6 Panel Data Regression Analysis

Panel data regression equation in which the variables DER (X₁), ROA (X₂) and SIZE (X₃) are independent variables that affect the TOBIN's Q (Y) variable as the dependent variable. Based on the regression results above, a regression line equation can be obtained as follows:

$$Tobins_{it} = 1.257223 + 0.078728DER_{it} - 0.185414ROA_{it} - 0.005930SIZE_{it} + \varepsilon_{it}$$

By knowing that: (1). The constant value (α) of 1.257223 states that if the variable X is constant, then the Y variable is 1.257223. (2). The regression coefficient of DER is 0.078728, it means that every increase of 1 unit of DER will increase the Tobins Q value of 0.078728 assuming the other independent variables are constant. (3). The regression coefficient of ROA is -0.185414, it means that every 1 unit increase in ROA will reduce the Tobins Q value by -0.185414 assuming the other independent variables are constant. (4). The regression coefficient of SIZE is -0.005930, it means that every increase in SIZE by 1 unit will reduce the TOBINS Q value by 0.005930, assuming the other independent variables are constant.

4.7 t test (Test of Individual Significance)

The way to do the t test is to look at the prob value. If the value is prob. from an independent variable less than 0.05, it means that an independent variable individually affects the dependent variable. Based on the table above, the results are as follows:

H₁ : DER affects Tobins Q

The significant value of the effect of DER on Tobin's Q is 0.0003 with a regression of a positive sign of 0.0787. Because the significant value of the influence of the DER variable on firm value <0.05 , the hypothesis is accepted. This means that the high value of the capital structure can increase firm value. This shows that if the company increasingly uses long-term debt to finance its assets, it can increase the value of the company and this is in accordance with the Trade off theory where companies can take advantage of debt with great benefits (tax savings and other costs) compared to sacrifices (paying interest). and also in accordance with the Signaling theory which states that when a company uses external funds (debt) to fund its business, it will be seen by investors as a positive signal because investors' perceptions that when a company uses debt, the company is trusted by the bank and gets easy access to get loans.

H₂ : ROA has negative effect on Tobins Q

The significant value of the effect of ROA on Tobins Q is 0.0016 with a negative regression of -0.1854. Because the significant value of the influence of the ROA variable on Tobins Q <0.05 , the hypothesis is accepted. However, this negative effect is contrary to the theory which states that the higher the profitability, the higher the firm value, which is a significant negative relationship between profitability and firm value found in this study, which may be explained as follows. In theory, it is expected that the higher the profitability, the higher the firm's value, but on the other hand, the stock price or company value can also be influenced by investors' views on the company's prospects. Things like this can happen, the company has historically suffered losses, but investors are of the view that the company's prospects will remain bright in the coming years. As a consequence, the company's shares are still highly valued despite the losses in the previous years.

H₃ : SIZE has negative effect on Tobins Q

The significant value of the influence of SIZE on Tobins Q is 0.0020 with a negative sign regression of -0.0059. Because the significant value of the influence of the variable size on Tobins Q <0.05 , the hypothesis is accepted. This means that the bigger the assets, the more complicated the management of the company, and the decreasing efficiency of the company, this results in a decrease in company value, in line with the increase in assets.

V. CONCLUSIONS AND SUGGESTIONS

5.1 Conclusions

Based on the results of research that has been conducted to analyze the Effect of Capital Structure, Profitability and Company Size on Firm Value in the Automotive Industry Sector listed on the IDX for the 2014-2018 period, it can be concluded as follows:

1. The results of this study indicate that capital structure has an effect on firm value. The findings of this study indicate that the increase in DER for good management can increase company profits so that it can increase firm value.
2. The results of this study indicate that profitability has a negative effect on firm value. The research findings still require further study. The possibility of this phenomenon shows that even though the company has suffered losses in the past few years, investors have confidence in the business prospects of companies in the automotive industry sector in the future if managed properly and professionally, so they continue to buy and not sell shares of the company even though they have not. able to generate profits in the past few years.
3. The results of this study indicate that company size has a negative effect on firm value, meaning that the bigger a company is, the less efficient it is in managing its resources, and the more complicated its management. Therefore, the bigger the company, the more it needs a more professional and credible management.

5.2 Suggestions

Based on the results of research and statistical data processing, there are suggestions from Issuers and Investors, including:

1. For Issuers. It is advisable for companies to determine the leverage at a certain level. As long as the benefits are still greater, additional debt is still permitted as a source of funding, because it can increase the company's profitability and value.
2. For Investors. Firm value can describe the performance of a company. Therefore, investors who invest in automotive companies should pay attention to leverage and size variables as considerations in making appropriate and profitable investment decisions later.

5.3 Limitations

Although this research has been well designed, there are still some limitations, namely:

1. This study only uses automotive companies listed on the Indonesia Stock Exchange, so the results cannot be generalized.
2. The proxy for financial ratios used for Leverage is DER only, Profitability is only ROA and represents company size only SIZE.
3. This study does not show the growth variable of each company, so that it cannot explain further the findings of the negative effect of ROA on firm value, which is contrary to the views and theories in general.

REFERENCE

- Aditama, Suwardjono. 2014. Teori Akuntansi Perencanaan Laporan Keuangan.
- Azzahra, Chairilisa. 2008. *Analisis Variabel – Variabel yang Mempengaruhi Harga Saham (Studi pada Bank yang Listing di Bursa Efek Indonesia Periode 2003 – 2007)*, Skripsi Fakultas Ekonomi dan Bisnis, Universitas Brawijaya, Malang.
- Arihta, Teresia, S et al. 2020. Pengaruh ROA, ROE, CR Terhadap Harga Saham pada Perusahaan yang Terdaftar di BEI Periode 2015-2018. *Journal of Economic and Business* 4(2) September 2020 426-433. LPPM Universitas Batanghari Jambi.
- Boutilda, R. 2015. "Analisis Pengaruh Struktur Modal Terhadap Profitabilitas Perusahaan (Studi Empiris Perusahaan-Perusahaan Manufaktur yang Terdaftar di BEI Periode 2009-2013)." *Jurnal Fakultas Ekonomi UI 2015*.
- Brigham, E F and J. F. Houston. 2010. *Dasar-Dasar Manajemen Keuangan*. Jakarta Salemba Empat.
- Dewi, A. S, and Mahatma, A. W. 2013. Pengaruh Struktur Modal, Profitabilitas dan Ukuran Perusahaan Pada Nilai Perusahaan. *E Jurnal Akuntansi Universitas Udayana Vol. 358-372*.
- Dzahabiyya. et al. 2020. Analisis Nilai Perusahaan dengan Model Tobin's Q. *Jurnal Riset Akuntansi dan Keuangan Dewantara Vol. 4 No. 1 2020 Januari Juli*. STIE Dewantara.
- Ghozali, I. 2013. *Aplikasi Multivariate Dengan Program SPSS*. Edisi Ketujuh. Semarang: Badan Penerbit Universitas Diponegoro.
- Gitman, L. J. 2013. *Principles of Managerial Finance*. 10th ed. Pearson Education Inc. United State.
- Istikhanah. 2015. Pengaruh Return On Asset dan Return On Equity Terhadap Nilai Perusahaan. *Jurnal Penelitian Fakultas Ekonomi Universitas Negeri Semarang*.
- Hardiyanti, N. 2012. *Analisis Pengaruh Insider Ownership, Leverage, Profitability, Firm Size dan Dividen Payout Ratio terhadap Nilai Perusahaan (Studi Pada Perusahaan Manufaktur yang Terdaftar di BEI tahun 2007-2010)*. Skripsi S1 Universitas Diponegoro, Semarang.
- Hidayah, N. and D. Widyawati, (2016). Pengaruh Profitabilitas, Leverage, dan Kebijakan Deviden Terhadap Nilai Perusahaan Food and Beverages. *Jurnal Ilmu dan Riset Akuntansi*, 5 September.
- Kodongo, O. et al 2014. Capital structure, profitability and Firm Value: panel evidence of listed firms in Kenya. *Munich Personal RePEc Archive*. No 57116.
- Lumoly, S. Et al 2018. Pengaruh Likuiditas, Ukuran Perusahaan dan Profitabilitas Terhadap Nilai Perusahaan (Studi Pada Perusahaan Logam dan Sejenisnya yang Terdaftar Di BEI) *Jurnal EMBA Vol.6 No.3 Juli 2018 Hal. 1108-1117* Fakultas Ekonomi dan Bisnis Jurusan Manajemen Universitas Sam Ratulangi Manado.
- Manajemen Keuangan., Edisi Kedelapan, Edisi Indonesia. Buku II.* (Hermawan Wibowo: Penerjemah) Jakarta: Erlangga.

- Michael, Sampurno, 2018. Faktor-Faktor yang Mempengaruhi Struktur Modal, Studi Kasus Pada Perusahaan Makanan dan Minuman yang Terdaftar Di BEI 2012-2016. *Jurnal Manajemen Universitas Diponegoro Volume 7 No.2 Tahun 2018*.
- Mahdaleta, et.al. 2016. Effects of Capital Structure and Profitability on Corporate Value with Company Size as the Moderating Variable of Manufacturing Companies Listed on Indonesia Stock Exchange *Academic Journal of Economic Studies, Vol. 2 Iss 3, 30-43*.
- Manoppo H, et all. 2016. Pengaruh Struktur Modal, Ukuran Perusahaan dan Profitabilitas Terhadap Nilai Perusahaan Otomotif yang Terdaftar Di BEI Periode 2011-2014. *Jurnal EMBA Vol 4. No. 2 Juni 2016 Hal.485-497*.
- Marthalova dan Ngatno. 2018. Analisis Pengaruh DER Terhadap PBV Dengan ROE Sebagai Variabel Intervening *Jurnal Universitas Diponegoro Vol.3 No. 20939/19617*
- M. Kuncoro, (2013). *“Metode Riset untuk Bisnis dan Ekonomi” Edisi 4*. Jakarta: Erlangga.
- Prasetyorini, R,B. 2013. Pengaruh Ukuran Perusahaan, Leverage, Price Earning Ratio dan Profitabilitas Terhadap Nilai Perusahaan. *Jurnal Ilmu Manajemen Vol. 1 Nomor 1 Januari 2013*. Universitas Negeri Surabaya.
- Ross, Westerfield, Jaffe, Lim, Tan dan Wong, 2015, *Corporate Finance – Asia Global Edition*. McGraw-Hill Education (Asia).
- Rumondor, R. M. et al. 2015 Pengaruh Struktur Modal, Ukuran Perusahaan dan Resiko Perusahaan Terhadap Nilai Perusahaan Pada Perusahaan Plastik dan Pengemasan yang Terdaftar Di BEI. *Jurnal EMBA Vol.3 No.3 Hal. 159-169*.
- Sanusi, A. 2017, Cetakan Ketujuh, *Metode Penelitian Bisnis*, Salemba Empat.
- Sartono, A. 2010. *“Manajemen Keuangan: Teori dan Aplikasi”*, BPFE-Yogyakarta
- Saputro, A. and Machdar, M. 2015. Pengaruh Profitabilitas, Pertumbuhan dan Pengaruh Proporsi Laba Ditahan Terhadap Kebijakan Dividen Perusahaan Manufaktur Tahun 2010-2012. *Jurnal Bisnis dan Komunikasi Kalbis Vol. 2 No. 2 Agustus 2015*.
- Sawitri, dan Lestari. 2015. Pengaruh Resiko Bisnis, Ukuran Perusahaan dan Pertumbuhan Penjualan Terhadap Struktur Modal. *E-Jurnal Manajemen Unud, Vol. 4, No. 5, 2015: 1238-1251*.
- Sibilkov, and Valeriy. (2009). Asset Liquidity and Capital Structure. *Journal of Financial and Quantitative Analysis*. 44. 1173-1196. 10.2139/ssrn.594523.
- Sunyoto, D. 2016. *Metodologi Penelitian Akuntansi*. Bandung: PT Refika.
- Sugiyono. (2013). *Metode penelitian kuantitatif, kualitatif dan R&D*. Bandung: Alfabeta.CV
- Sugiyono. 2013. Analisa Faktor yang Mempengaruhi Likuiditas Pada Industri Ritel yang Terdaftar Pada Bursa Efek Indonesia Tahun 2007-2012. *Business Accounting Review*, 1 (2), pp: 298- 305.
- Syamsuddin. L. 2011. *Manajemen Keuangan Perusahaan*. Jakarta : Rajawali
- Ustianti, N 2015. Pengaruh Struktur Modal, Kepemilikan Manajerial, Keputusan Investasi, Kebijakan Dividen, Keputusan Pendanaan Dan Profitabilitas Terhadap Nilai Perusahaan (Studi Pada Perusahaan Keuangan dan Perbankan Di BEI Tahun 2009-2013). *Jurnal Unpand Vol.1 No.1 2015*.

- Utami, NW. 2019. Pengertian dan Faktor-Faktor yang Mempengaruhi Struktur Modal. *Jurnal ID*: <https://www.jurnal.id/id/blog/2017-pengertiandanfaktor-yang-mempengaruhi-struktur-modal/>
- Wulandari, D. 2013. Pengaruh Profitabilitas, Operating, Leverage, Likuiditas, Terhadap Nilai Perusahaan Dengan Struktur Modal Sebagai Intervening. *Accounting Analysis Journal*, 2(4). <https://doi.org/10.15294/aaj.v2i4.4172> Vol 2 No 4 (2013).