

Analysis Determinant of Profitability and Their Effect on The Value of Automotive Companies Listed on IDX

Sulitiyani¹, Salim M.Noor²

¹Postgraduate Student Program, Mercu Buana University, Jakarta, Indonesia

²Associate Professor of Mercu Buana University, Jakarta, Indonesia
sulitiyani57@gmail.com

Abstract

This study aims to analyze the effect of financial performance on firm value with profitability as an intervening variable. The population in this study are automotive companies listed on the Indonesia Stock Exchange for the 2015-2019 period. The financial performance used in this study is the Debt to Equity (DER), Current Ratio (CR), and company size. The research data is secondary data with an observation period of 5 years. The sampling method used is purposive sampling, where from all automotive companies listed on the IDX selected based on certain criteria. Samples that meet the criteria are 8 companies. The data analysis method used is panel data regression. The results showed that Fixed Effect is the best model. The results of the partial test (t test) of the DER ratio have a negative and significant effect on profitability, CR and firm size have no effect on profitability, while profitability on firm value has no significant effect. Partially DER has a positive effect on firm value, CR and firm size have no significant effect on firm value. The role of profitability as an intervening variable is very important in increasing the effect of DER, CR, and firm size on firm value. The results of the Prob (F-statistic) are $0.000 < 0.005$, meaning that together this study which consists of DER, CR, and firm size has a positive and significant effect on firm value.

Keywords: Profitability, Debt to Equity Ratio (DER), Current Ratio (CR), Firm Size, Firm Value

JEL CODES: G11, G30, G32

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1. Introduction

In the current economic conditions where economic growth is uncertain and difficult for us to predict, this is certainly a very big influence on the business world that wants to survive and be able to continue to grow as much as possible in difficult conditions like today. Business people are required to be more creative and have a competitive advantage compared to their competitors. According to the Ministry of Industry (2018). The automotive industry is one of the mainstay sectors whose development continues to be prioritized because it plays a major role in national economic growth. This can be seen from the export growth of Indonesia's automotive industry in 2018 which reached production of 1.34 million units with an installed capacity of 2.25 million units and was able to absorb a workforce of 1.5 million people so as

to lead in car sales in ASEAN in 2018. The automotive industry company itself is an industry that is engaged in producing public needs in the form of vehicles as a means of transportation and has profitable prospects where transportation is one of the most important community needs.

According to Hermuningsih (2012), a high company value will make the market believe it not only reflects the company's current performance but also the company's prospects in running its business in the future. The value of the company can describe the state of the company. With the good value of the company, the company will be viewed favorably by potential investors. The market forms stock prices as a reflection of the value of the company that can be used as a proxy in an effort to measure the value of the company. Good corporate value is able to provide prosperity for shareholders. The higher the stock price, the higher the firm value (Fama, 1978, McConnell & Muscarella, 1986).

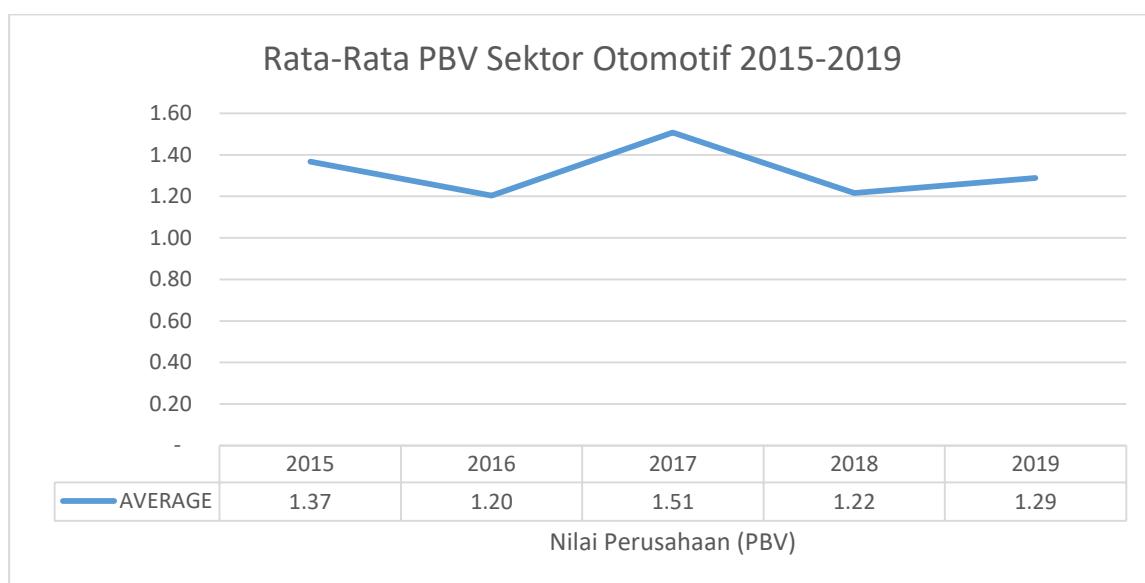


Figure 1. Average Growth Price Book Value (PBV) of Automotive Companies in 2015-2019

Source: IDX (2021)

Figure-1 shows that the value of companies in the automotive sector as measured using the Price to book value (PBV) indicator for the last five years has fluctuated. In 2016 the value of the automotive sector companies experienced a downward trend compared to the following years. In 2017, there was an increase of 1.51%. Subsequently, it experienced a downward trend again in 2018, but in 2020 it began to experience a recovery again with a fairly high increase reaching 1.29, but still unable to compete with the company's value in 2017 of 1.51%.

The value of the company will give a positive signal in the eyes of investors to invest in a company, while for creditors the value of the company reflects the company's ability to pay its debts so that creditors do not feel worried in providing loans to the company. This makes the value of the company very important because it can influence investors' perceptions of the company. In general, firm value can be measured using one of the financial ratios, namely Price to Book Value (PBV). Price to Book Value is a ratio to measure the relationship between stock market prices and book value per share, (Sihombing, 2018). The PBV ratio is quite

significant in predicting the level of stock returns in the future. For example, Fama and French (1992) observe that the PBV ratio is the best predictor of stock returns in the future. Companies with low PBV consistently have higher returns than companies with high PBV. There are factors that affect firm value, namely: financing policy, investment policy, dividend policy, firm size, leverage and profitability (Winarto, 2015).

Profitability is the company's ability to earn profits in relation to sales, total assets and own capital (Lukviarman, 2016:33). Profitability in this study is proxied by return on assets (ROA) because it can show how the company's performance is seen from the overall use of the company in generating profits. High profitability indicates that the company is more effective in carrying out its operations so that it is able to increase optimal profits. Conversely, low profitability illustrates that the company is less efficient in carrying out its operations so that it is less able to generate optimal profits.

Based on the results of Winarto's (2015) research, profitability is able to affect firm value. Profitability is a performance indicator carried out by the company's management in managing the company's assets, which is indicated by the profits generated by the company. If the company is not able to generate sufficient profitability, then the company will not be able to maintain its business continuity. Therefore, the company must look for sources of funds that come from outside the company. In general, companies use leverage in adding sources of funds. In this study, the ratio used to measure the leverage ratio is the debt to equity ratio. According to Gitman and Zutter (2015:126) suggest that debt to equity ratio measures the relative proportion of total liabilities to common stock equity used to finance the firm's total assets. This means that the debt to equity ratio measures the relative proportion of total liabilities to ordinary equity used to finance the company's total assets.

Liquidity indicates the company's ability to generate cash in the short term to meet its obligations. Liquidity depends on a company's cash flows and components of its current assets and current liabilities. Liquidity in this study is proxied by the Current Ratio because it is in accordance with research conducted by Rokhim and Harianto (2020) which shows that liquidity has a positive and significant effect on profitability.

Company size is the size, scale or variable that describes the size of the company based on several factors, including total assets, market value, total sales, total income, total capital and others. Meanwhile, according to Brigham and Houston (2015), company size is the average of total net sales for one year to several years. In this case, where sales are greater than variable costs and fixed costs, the amount of income before tax will be obtained. The size of the company can affect the company's performance, because large-scale companies have a wider view and opportunities to use their resources, making it easier to adapt to their environment

2. Literature Review

Agency Theory first proposed by Jensen and Mackling in 1976. Agency theory describes the relationship between shareholders as principals and management as agents. Agency is any relationship between two parties in which one, the agent, represents the other, the principal, in everyday life.

Signaling Theory according to Brigham & Houston (2017, p. 186). Signalling Theory is a theory that describes the actions of management in assessing the company's future prospects, and to provide guidance for these assessments to investors to take an action. Signalling theory is a theory in which the company will provide information signals to investors about the

condition and prospects of the company in the future, and these signals will be captured by investors as positive signals and negative signals which will later be used as the basis for decision making..

Profitability is the company's ability to earn a profit or a measure of the effectiveness of the company's management. The ability to earn a profit can be measured from its own capital or from all funds invested into the company (Wiagustini, 2010). Profitability also has an important meaning in an effort to maintain its survival in the long term, because profitability shows whether the business entity has good prospects in the future.

Firm value is an investor's perception of the company's level of success in managing resources at the end of the current year which is reflected in the company's stock price (Fahmi, 2015: 118). Good corporate value is able to provide prosperity for shareholders. The higher the stock price, the higher the value of a company (Fama, 1978, McConnell and Muscarella, 1986).

Leverage is a ratio that aims to analyze spending made in the form of debt and capital composition as well as the company's ability to pay interest and other fixed expenses (Arief Sugiono and Edi Untung, 2016:59). According to Singapurwoko (2011), companies with high growth certainly require large amounts of funds to finance their company's operational activities. One of these funding needs can be met from the company's external funding sources, namely debt. Leverage is one of the important strategies that affect profitability because leverage can be used by companies to increase company capital in order to increase profits.

Liquidity is a ratio that measures the company's ability to meet short-term obligations and reflects the company's short-term financial strength or solvency. This ratio looks at the amount of current assets relative to current debt (Sihombing, 2018). Meanwhile, according to Syafrida Hani (2014), the factors that can affect liquidity are the elements that make up liquidity itself, namely part of current assets and current liabilities, including cash turnover and operating cash flow, company size, growth opportunities, diversity operating cash flow, debt ratio or debt structure.

Firm value is an investor's perception of the company's level of success in managing resources at the end of the current year which is reflected in the company's stock price (Fahmi, 2015: 118). Good corporate value is able to provide prosperity for shareholders. The higher the stock price, the higher the value of a company (Fama, 1978, McConnell and Muscarella, 1986).

Hypothesis

Based on theoretical studies and supported by the results of previous studies, the hypotheses of this research are as follows:

Hypothesis 1: *Debt to Equity Ratio* suspected to have a negative effect on profitability.

Hypothesis 2: Current Ratio has a positive effect on profitability.

Hypothesis 3: Firm size is thought to have a positive effect on profitability.

Hypothesis 4: *Debt to Equity Ratio* suspected to have a positive effect on firm value.

Hypothesis 5: Current Ratio has a positive effect on firm value.

Hypothesis 6: Firm size is thought to have a positive effect on firm value.

Hypothesis 7: Profitability is suspected to have a positive effect on firm value.

Hypothesis 8 : *Debt to Equity Ratio*, Current Ratio, and Company Size simultaneously

allegedly have a significant positive effect on profitability.
Hypothesis 9 :Dept. to Equity Ratio, Current Ratio, and Company Size simultaneously allegedly have a significant positive effect on firm value.

The framework of this research is as follows:

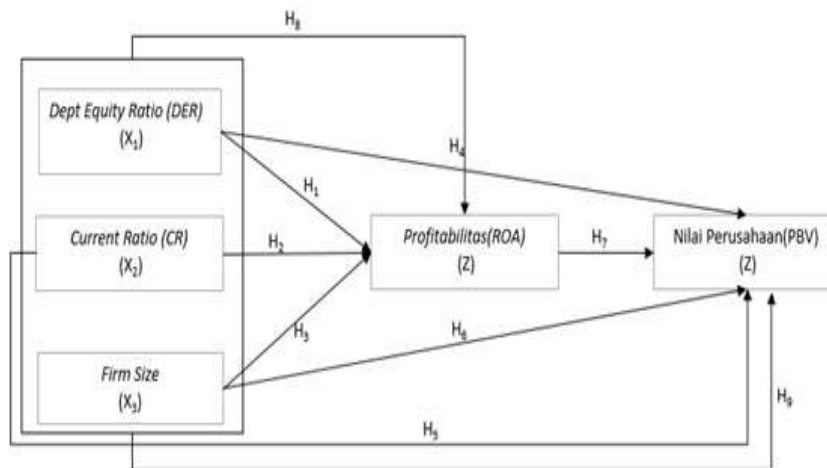


Figure 2. Conceptual Framework

3. Research Method

This research belongs to the type of causality research. The approach used in this research is a quantitative approach. The research data is annual data for the 2015-2020 period (time series) from 8 companies (cross-section). Data analysis used a panel data regression approach with a total of 40 observations. The research population is all automotive sector companies listed on the Indonesia Stock Exchange (IDX) in 2019, totaling 13 companies. Companies that meet the sample criteria are 8 companies. The data analysis method used is panel data regression

The regression equation used to answer the research problem is:

$$Y = \alpha + \beta *DER + \beta *CR + \beta *Size + \varepsilon$$

$$Z = \alpha + \beta *DER + *CR + *Size + \varepsilon$$

$$Y = \alpha + \beta *ROA + \varepsilon$$

Where:

α =constant

β = regression coefficient

Y = Firm Value

Z = Profitability

DER = *Debt to Equity Ratio*

CR = *Current Ratio*

Size = Company Size

4. Findings and Discussions

Table 1. Descriptive Statistics of Research Variables

	DER	CR	SIZE	ROA	PBV
Mean	1.302066	2.434111	29.63618	0.063024	1.048883
Median	0.887372	1.494953	29.52934	0.033297	0.592914
Maximum	8.261326	13.04157	33.49453	0.716023	3.953178
Minimum	0.071274	0.601606	26.31469	-0.134015	0.049025
Std. Dev.	1.495941	2.434951	2.013757	0.131653	1.084756
Skewness	2.700024	2.541427	0.293799	3.224601	1.490677
Kurtosis	12.74316	10.47385	2.375159	16.35204	4.110401
Jarque-Bera	206.8161	136.1563	1.226162	366.4488	16.86910
Probability	0.000000	0.000000	0.541679	0.000000	0.000217
Sum	52.08264	97.36445	1185.447	2.520954	41.95533
Sum Sq. Dev.	87.27578	231.2304	158.1535	0.675966	45.89116
Observations	40	40	40	40	40

Source: Processing data

Average value *Debt to Equity Ratio* (DER) of 1.3020. These results show that on average the company has a debt value of 1.3020 times or 130.20% greater than its equity. This means that the equity owned by the company is currently unable to be used to pay all of its debts. The minimum value of the DER variable is the company PT. Multi Prima Sejahtera (LPIN) of 0.071% in 2019. The maximum value of DER is 8.2613 at PT. Multi Prima Sejahtera (LPIN) in 2016 means that the company's debt value is 8,2613 times the value of its equity.

Average value *Current Ratio* (CR) of 2.4341 means that every 1 rupiah of current liabilities can be met with Rp. 2.4341 of current assets owned by the company. The lowest value in 2019 with a value of 0.6016 is owned by PT Prima Alloy Steel Universal (PRAS) because it has a current debt value that is greater than the value of its current assets. This condition can be said that the company has difficulty in paying its current debt because its current assets cannot guarantee the value of the current debt. The highest value in 2019 with a value of 13.0415 owned by PT. Multi Prima Sejahtera (LPIN) has a current debt value that is lower than its current asset value, so that the company can pay its current debt because its current assets can guarantee the current debt value.

The average value of the company size is 29.6361 with a standard deviation of 2.0137. The average value (mean) is greater than the standard deviation, which is $29.6361 > 2.0137$, which means that the size of the company is well distributed. The lowest value in 2017 with a value of 26,315 owned by PT. Multi Prima Sejahtera (LPIN) while the highest value in 2019 was 33,494 which was owned by PT. Astra International Tbk (ASII) because the larger the size or

scale of the company, the easier it will be for the company to obtain funding sources, both internal and external.

The average value of profitability measured using Return on Assets is 0.063 with a standard deviation of 0.131, meaning that automotive companies in 2015-2019 indicate that during that period the company's income is greater than the value of total assets so that the condition can be said that the company uses its assets fairly. efficient so as to generate greater sales. The lowest value of Return on Assets in 2016 with a value of -0.134 which is owned by PT. Multi Prima Sejahtera (LPIN) because it has a current asset value that is greater than its net income. This condition can be said that management is less efficient in using its assets and there is a high possibility of management or production problems.

The average value of the company's value as measured by Price to Book Value (PBV) is 1,048, meaning that on average the market value of automotive companies for the 2015-2019 period is valued at 1,048 times greater than the book value. The highest value of Price to Book Value in 2017 with a value of 3.95 is owned by PT. Perfect Congratulations (SMSM). Stable company conditions can attract investors to own shares of the company, which causes an increase in the demand for company shares which will trigger an increase in share prices in the capital market. The increase in stock prices is what triggers the increasing value of the company.

The following table-2 presents the results of selecting the best panel model. It was found that the best estimation model in this study is the Fixed Effect Model (FEM).

Table2. Best Panel Model Selection Results

Test	Decision-making	The calculation results	Conclusion
Chow test	If (Prob.) for Cross-section F. > 0.05, selected CE. If (Prob.) for Cross-section F. < 0.05, FE is selected.	(Prob.) for Cross-section F = 0.00413 < 0.05 (Equation 1) F = 0.0000 < 0.05 (Equation 2) F = 0.0000 < 0.05 (Equation 3)	FE
Hausman test	If (Prob.) for Cross-section random > 0.05, selected RE. If (Prob.) for a random cross-section < 0.05, FE was chosen.	(Prob.) for Cross-section F = 0.0148 < 0.05 (Equation 1) F = 0.0002 < 0.05 (Equation 2) F = 0.0003 < 0.05 (Equation 3)	FE

The best model test results show the appropriate model. Based on the test of equation 1, the calculated F value is 3.3600 with a probability of 0.0051. The ability of the model to explain the problem phenomenon is 37.70%. The remaining 62.30% is explained by other variables outside the model.

Table-3. Fixed Effect Model (FEM) Analysis Table Equation 1

Variable	Coefficient	t-Statistic	Prob.	Note.
C	1.761697	0.391903	0.6980	
DER	-0.055456	-2.469186	0.0197	***
CR	-0.008568	-0.688457	0.4966	
SIZE	-0.054177	-0.355265	0.7250	
R2	0.5367			
R2 adjusted	0.3770			
F-statistics	3.3600			
Prob(F-statistic)	0.0051			

Note: *** is significant at = 1%

Based on Table-3, the panel data regression equations of this study are:

$$ROA = 1.761697 - 0.055456 \text{ DER} - 0.08568 \text{ CR} - 0.054177 \text{ SIZE}$$

Value constant 1.761697 significantly 0.0051. It means when *Debt. to Equity Ratio*, *Current Ratio*, and firm size is zero (does not affect), then the value of *Return on Assets* automotive sector by 1.761697 time.

Variable regression coefficient value *Debt to Equity Ratio* is -0.055456 with a significance of 0.0197. It means *Debt. to Equity Ratio* negative and significant effect on profitability.

Score variable regression coefficient *Current Ratio* is -0.08568 with a significance of 0.4966. This means that the *Current Ratio* has no effect on profitability.

Variable regression coefficient value company size is -0.054177 with a significance of 0.7250. This means that the size of the company has no effect on profitability.

The results of testing the best model of equation 2 show the model is suitable. Based on the test of equation 2, the calculated F value is 16,19095 with a probability of 0.0000. The ability of the model to explain the phenomenon of the problem is 79.57%. The remaining 20.43% is explained by other variables outside the model.

Table 4. Fixed Effect Model (FEM) Analysis Table Equation 2

Variable	Coefficient	t-Statistic	Prob.	Note.
C	9.777293	0.460986	0.6482	
DER	0.294522	2.779365	0.0095	***
CR	0.071115	1.211112	0.2356	
SIZE	-0.313299	-0.435427	0.6665	
R2	0.8480			
R2 adjusted	0.7957			
F-statistics	16.19095			
Prob(F-statistic)	0.0000			

Note: *** is significant at = 1%

Based on Table-4, the panel data regression equations of this study are:

$$PBV = 9.777293 + 0.294522DER + 0.071115CR - 0.313299SIZE$$

Value constant 9.777293 significantly 0.0000. It means when *Dept. to Equity Ratio*, *Current Ratio*, and firm size is zero (does not affect), then the value of *Price to Book Value* automotive sector by 9.777293 time.

Variable regression coefficient value *Dept. to Equity Ratio* is 0.294522 with a significance of 0.095. It means *Dept. to Equity Ratio* positive and significant effect on Price to Book Value.

Score variable regression coefficient *Current Ratio* is as big as 0.071115 with significance 0.2356. This means that the Current Ratio has no effect on Price to Book Value.

Variable regression coefficient value company size -0.313299 with significance 0.6665. This means that the size of the company has no effect on the value of the company (as measured by Price to Book Value).

The result of testing the best model of equation 3 shows that the model is suitable. Based on the test of equation 3, the calculated F value is 16,19095 with a probability of 0.0000. The ability of the model to explain the problem phenomenon is 74.47%. The remaining 25.53% is explained by other variables outside the model.

Table-5. Fixed Effect Model (FEM) Analysis Table Equation 3

<i>Variable</i>	<i>Coefficient</i>	<i>t-Statistic</i>	<i>Prob.</i>	<i>Note.</i>
C	1.091813	10.84274	0.0000	
ROA	-0.681159	-0.836902	0.4091	
R2	0.7971			
R2 adjusted	0.7447			
F-statistics	15.22516			
Prob(F-statistic)	0.0000			

Note: *** is significant at = 1%

Based on Table-4, the panel data regression equations of this study are:

$$Y = 1.091813 - 0.681159ROA$$

Value constant 1.091813 significantly 0.0000. It means when *Return on Assets* is zero (does not affect), then the value of *Price to Book Value* automotive sector by 1.091813 time.

Variable regression coefficient value *Return on Assets* as big as -0.681159 with significance 0.4091. This means that the size of the company has no effect on the value of the company (as measured by Price to Book Value).

Discussion of Research Results :

1) Effect of Leverage on Return on Assets

The results showed that Leverage had a negative and significant effect on Return on Assets. According to Arief Sugiono and Edi Untung (2016: 59), leverage is a ratio that aims to analyze spending made in the form of debt and capital composition as well as the company's ability to pay interest and other fixed expenses.

The higher the leverage ratio, the lower the company's funding provided by shareholders. From the perspective of the ability to pay long-term obligations, and the lower the leverage ratio, the better the company's ability to pay long-term obligations. The use of debt in the company's operational activities related to company funding does not only have a good impact. If the proportion of leverage is ignored or not considered, it will reduce profitability. High leverage will have a high risk for the company's financial condition.

Based on the theory that the higher the leverage value, the higher the risk the investment is, while the lower the leverage indicates the small risk investment. Debt to equity ratio that is more than one will greatly disrupt the growth of the company's performance and disrupt the growth of its share price. Thus, the company must consider the leverage ratio in terms of the company's business development.

This finding is in line with the research of Nanda and Ajaya (2015) researching the manufacturing industry in India in 2000-2015, Lazar (2016) which examined companies listed on the Romanian Stock Exchange in 2000-2011. However, this study is not in line with Ainiyah (2016) who examined animal feed companies listed on the IDX in 2010-2014.

2). Effect of Current Ratio on Return on Assets.

The results showed that the Current Ratio had no effect on Return on Assets. According to Arief Sugiono and Edi Untung (2016: 57), liquidity is a ratio that aims to measure the company's ability to meet its short-term obligations. The greater the current ratio of a company, the greater the amount of rupiah provided to pay current liabilities, the greater the company's ability to meet current obligations, and the greater the level of security of funds for short-term creditors. Therefore, the current ratio is a measure of the safety margin for creditors. However, a high current ratio has an unfavorable effect on the level of company profitability. In other words, current assets generate lower returns than fixed assets (Sihombing, 2018).

Companies that have a high liquidity ratio have the ability to meet short-term obligations with their current assets. It proves that the company's financial condition is still good so that it is able to pay off short-term obligations that have matured. Based on the theory that high liquidity shows the strength of the company in terms of the ability to meet current debts from current assets owned so that this increases the confidence of outsiders in the company.

The results of this study are in line with research by Alarussi and Alhaderi (2018) which examined companies listed on the Malaysian Stock Exchange in 2012-2014, which stated that the liquidity ratio did not show a significant relationship to Return on Assets. However, the results of the study differ from the hypothesis and this finding is not in line with the research of Nanda and Ajaya (2015) researching the manufacturing industry in India in 2000-2015.3).

(3). Effect of Company Size on Return on Assets.

The results of the study indicate that firm size has no effect on Return on Assets. According to Brigham and Houston in Ulfa (2016: 4), company size is defined as the average total assets for the year concerned up to several years. Company size is a characteristic of a company in relation to the company structure. Company size describes the size of a company that can be expressed by total assets. The greater the total assets of the company, the greater the size of the company. Company size as a proxy for Ln Total Assets affects the high and low profitability. The greater the company's assets, the higher the profit generated by the company to support the smooth running of its business activities. Therefore,

The results of the hypothesis are in line with Azlina's (2009) research which examined property and real estate industry companies in 2003 and 2007. However, this research is not in line with Rokhim and Lim's (2020) research on the pharmaceutical industry in Indonesia in 2014-2018.

(4). Effect of Leverage on Price to Book Value.

The results showed that *Leverage* positive and significant effect on firm value as measured using *Price to Book Value*. Leverage refers to the extent to which companies use their money. Loans (debt financing) to increase profits and are measured by total debt to equity. Leverage refers to the scale of debt to equity in the company's capital structure. According to Sihombing (2018), the theory of capital structure in the traditional approach is centered on the view of the optimal capital structure in its effect on increasing firm value

The results of this study are in line with Hirdinis (2019) who examined IDX mining sector companies in 2011-2015 and Ainur, et al., (2018) who examined pharmaceutical companies listed on the Indonesia Stock Exchange between the period 2012-2016.

(6). Effect of Current Ratio on Price to Book Value

The results of the study indicate that the Current Ratio does not affect the Price to Book Value. Liquidity determines the extent to which the company bears the risk or in other words the company's ability to get cash or the ability to realize non-cash into cash. A company that has a good level of liquidity means it has a small level of risk because the company is able to fulfill its obligations properly, there are lots of funds available for the company to pay dividends, finance operations and investments. So when investors see a good level of liquidity, it will give a positive signal to the company.

The greater the current ratio, the greater the company's ability to meet its short-term obligations. This shows that the company allocates large funds on the current asset side. As for the allocation of funds that are too large on the asset side, there are two very different reactions. On the one hand, the company's liquidity is getting better but on the other hand, the company loses the opportunity to get additional profit, because the funds that should be used for investments that benefit the company, are instead reserved to meet the company's liquidity.

Research results are not in line Ainur, et al., (2018) who researched pharmaceutical companies listed on the Indonesia Stock Exchange between the period 2012-2016 states that liquidity has a significant positive effect on firm value.

(8). Influence Company Size on Price to Book Value.

The results of the study indicate that the size of the company has no effect on Price to Book Value. The size of the company is considered capable of influencing the value of the

company. Larger companies have higher firm values. Theoretically, this is based on the easy access of large companies to external funding. The size of the company that is too large is considered to cause a lack of efficiency in monitoring operational activities and strategies by the management, so as to reduce the value of the company.

The results of the hypothesis are in line with Winarto's (2015) research on companies listed on the Indonesia Stock Exchange in 2005-2010, which states that company size has no effect on firm value. However, this research is not in line with the research of Ramadan and Zeyad (2016) researching industrial companies in Jordan in 2000-2014.

(9). Effect of Return on Assets on Price to Book Value.

The results showed that Return on Assets had no effect on Price to Book Value. Return on Assets is the ratio of net profit after tax to the average total assets. Based on the understanding of Return on Assets, it can be said that Return on Assets identifies how efficient management is in using its assets to generate profits.

The company's profit is an element in the creation of company value that shows the company's prospects in the future. In accordance with the concept of signaling theory, profitability will be a signal from management that describes the company's prospects based on the level of profitability formed, and will directly affect the value of the company as reflected in the level of stock prices in the market..

The results of this research hypothesis are not in line with research by Daeli and Endri (2018) on cigarette companies listed on the Indonesia Stock Exchange in 2012-2016, which state that company size has a positive effect on Price to Book Value.

(11). Effect of Leverage, Liquidity and Firm Size on Return on Assets.

The results showed that together this research which consisted of the Debt to Equity Ratio, Current ratio and company size variables had a positive and significant effect on Return on Assets. Companies with large scale but experiencing decreased growth and declining profitability of the company can increase the amount of debt. Large companies that experience a reduction in the number of assets and decrease in profitability tend to borrow/debt as an alternative financing because the profits obtained tend to be insufficient to finance the company's operations. High profitability with positive growth even though the company is still a medium scale company that relies more on retained earnings in financing so that the use of debt will be minimized.

The results of this research hypothesis are in line with research by Yuanita et al., (2016) on companies listed on the Indonesia Stock Exchange in 2010-2014, which state that the Debt to Equity Ratio, Current ratio and company size have a positive effect on Return on Assets.

(12). Effect of Leverage, Liquidity and firm size on Price to book value.

The results of this study show that together this research which consists of the variables of the Debt to Equity Ratio, Current ratio and company size has a positive and significant effect on Price to Book value. A high company value will make the market believe not only reflecting the company's current performance but also the company's prospects in running its business in the future. The value of the company can describe the state of the company. The value of the company will give a positive signal in the eyes of investors to invest in a company, while for creditors the value of the company reflects the company's ability to pay its debts so that

creditors do not feel worried in providing loans to the company.

The results of this research hypothesis are in line with Monica's (2016) research on non-banking companies in the LQ 45 category for the period 2012-2016 which states that size, growth, and profitability simultaneously have a significant positive effect on firm value.

(13). *Direct and indirect influence.*

Based on the results of the study, the following is the value of the coefficient of determination of the regression equation:

Table6. Value of Coefficient of Determination of Regression Equation

No.	R-Square . Regression Equation	Coefficient of Determination
1	$Y = + *DER + *CR + \beta *Size$	0.377003
2	$Z = + *DER + *CR + *Size$	0.795715
3	$Y = + *ROA$	0.744767

Source: Processed Data

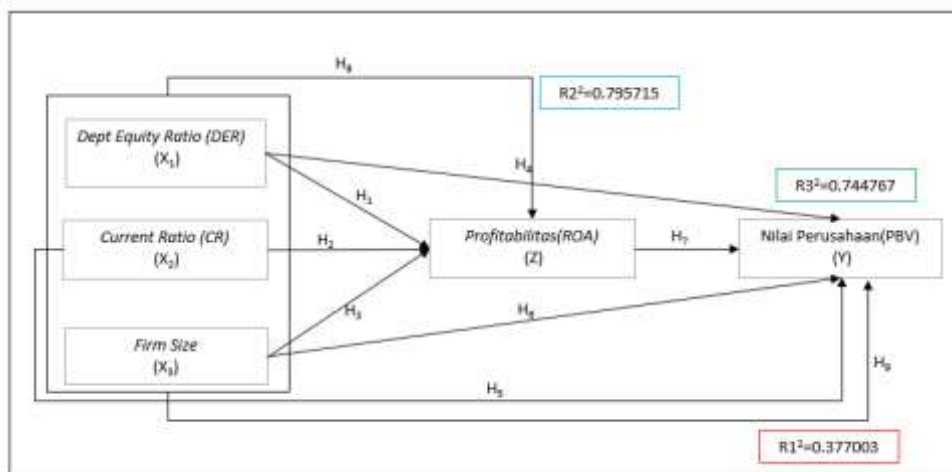


Figure-3 Direct and Indirect Effects

$$(R_{22} + R_{32}) > R_{12}$$

$$(0.795715 + 0.744767) > 0.377003 = 1.540482 > 0.377003$$

The result of the sum of the coefficients of determination from regression equation 2 and regression equation 3 is greater than the coefficient of determination of regression equation 1. This shows that the role of return on assets as an intervening variable is very important in increasing the influence of the independent variables (DER, CR, Size) on the dependent variable. When compared to the R-Squared value from the regression equation analysis directly (without intervening variables) and by intervening intervening, the R-Squared value which indicates the ability of the independent variables to explain the dependent variable is greater in value through the intervening variable.

5. Conclusions

Based on the results of the analysis and discussion; it can be concluded as follows:

Partially, the leverage ratio has a negative and significant effect on the return on assets of automotive companies listed on the Indonesia Stock Exchange in 2015-2019.

Partially, the liquidity ratio has no effect on the return on assets of automotive companies listed on the Indonesia Stock Exchange in 2015-2019. The size of the company has no effect on the return on assets of automotive companies listed in the 2015-2019 BEI. The leverage ratio has a positive and significant effect on the price to book value of automotive companies listed on the Indonesia Stock Exchange in 2015-2019. The liquidity ratio has no effect on the price to book value of automotive companies listed on the Indonesia Stock Exchange in 2015-2019. The size of the company has no effect on the price to book value of automotive companies listed on the Indonesia Stock Exchange in 2015-2019. Return on assets has no effect on the price to book value of automotive companies listed on the Indonesia Stock Exchange in 2015-2019.

Simultaneously, the leverage ratio, liquidity ratio, and company size have a positive and significant impact on the return on assets of automotive companies listed on the Indonesia Stock Exchange in 2015-2019. The leverage ratio, liquidity ratio, and company size have a positive and significant impact on the price to book value of automotive companies listed on the Indonesia Stock Exchange in 2015-2019. As for the intervening effect, based on the coefficient of determination of direct and indirect effects, return on assets can be an intervening variable between the independent variables (Debt to Equity Ratio, Current Ratio, firm size) and the dependent variable Price to Book Value.

Some suggestions regarding the results of this study: (1) For the Company. The management of the company should pay attention to the liquidity ratio because these variables are the most influential in reducing the level of company profitability in the future. Due to the high liquidity, the company is able to settle its short-term obligations when they fall due from the assets it owns, which automatically makes it easier for the company to manage its finances.; (2). For Investors. (a). If the company's current ratio is low, investors can also see the condition of the automotive company's cashflow in order to better understand the company's liquidity level; (b). By looking at the leverage ratio, creditors can see how much debt the company has. In addition, creditors can also measure how much risk the company gives to this sector. (3). For Further Researchers. The author suggests adding other variables that are relevant and affect the company's profitability such as macroeconomic variables and good corporate governance (GCG), and are expected to use the object of research not only limited to the automotive sector listed on the Indonesia Stock Exchange. So that the results of further research can be used in general and widely.

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