



The Effect of Capital Structure, Profitability and Liquidity on the Company's Value in the Automotive Sub-Sector and Components for the Period 2017-2021

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ABSTRACT

This research was conducted to determine the influence of Capital Structure, Profitability and Liquidity on Company Value using company time series panel data with a research period of 2017-2021. Using the panel data linear regression analysis method, with a sample of 9 companies from 13 automotive and component sub-sector companies in Indonesia. This research was analyzed using E views version 9 software with the results of the study, namely the capital structure proxiated by *Debt Equity Ratio* (DER) has a positive and significant effect on the Company's Value which is proxikan with *Price to Book Value* (PBV), Profitability produced by *Return On Asset* (ROA) has a negative and significant effect on the value of the Company proxikan with *Price to Book Value* (PBV) and Liquidity proxikan with *Current Ratio* (CR) have a positive and insignificant effect on the value of companies proxistivated with *Price to Book Value* (PBV).

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1. Introduction

Automotive and component sub-sector companies are one of the companies that develop their products based on the development of existing technology. Because this automotive and component sub-sector is very productive and also promising, in improving the products offered by this company adjusting between needs and still following technological developments, so this company will be used as one of the references in the development of revolution in economic growth, especially in Indonesia.

In the era of the development of this revolution, and also some companies were affected by the Covid-19 pandemic. So the whole company is maximizing the value of its company to remain stable and make a lot of profits. It is expected that the company is able to balance between the use of capital obtained by itself and also the capital obtained from the company's debt. (Handayani & Utiyati, 2021) states that the company's managers should be able to manage the capital funds owned by the company, because to attract interest from investors the company's capital structure must be in the optimal level so that later it will know how much profitability the company has.

The value of the company can be known from looking at the stability of the *Price to Book Value* (PBV) of a company. Because this ratio is used to compare the price of a stock with the book value of a share. (Wiryawidjaya et al., 2021) states that the value of the company has an important role for the company, because it will reflect how well the company performs in managing its company.

2. Methods

The method used in research is a quantitative research method in which the data obtained is based on the annual financial statements of the company. The company's financial statements are obtained

from the official website of the Indonesian stock exchange, namely www.idx.co.id with the taking of financial statements for 5 years, starting from 2017-2021. The population of automotive sub-sector companies and components listed on the IDX is 13 companies.

2.1 Company Sampling Criteria

In this study, the author used *purposive sampling* techniques, namely the technique of prngambila samples by grouping companies according to the data expected by the author.

| No | Information | Sum |
|----|---|-----|
| 1 | Subsector companies listed on the IDX in the period 2017-2021 | 13 |
| 2 | Automotive companies that in their financial statements use foreign currency for the period 2017-2021 | (3) |
| 3 | Listed companies do not report their financial statements periodically in the period 2017-2021 | (1) |
| | Number of samples that meet the criteria | 9 |

2.2 Variable Operational Definition

(Sutama, 2016) Stated that in the quantitative research to be used, the variables must be defined operationally and then categorized so that they can be measured and manipulated.

There are two variables that the author will use, namely:

- Free Variables (Independent Variables)
Sugiyono (2017: 39) states that variables used in independent variables are variables that can influence the emergence of free variables. In the research conducted, it can be known that the free variables that will be used are DER, ROA, and CR as one of the calculation ratio measurements.
- Bound Variables (Dependent Variable)
(Sugiyono, 2017) states that bound variables are variables that can have an impact on their free variables. Because of this dependent variable, it is expected that the free variable will appear. It can be seen from the results of the discussion, the bound variable that will be used is Price to Book Value (PBV).

3. Results and Discussion

| Descriptive Statistical Analysis | PBV_Y | DER_X1 | ROA_X2 | CR_X3 |
|----------------------------------|----------|----------|-----------|----------|
| Mean | 2.896500 | 1.108955 | 0.048905 | 2.282295 |
| Median | 2.025000 | 0.754250 | 0.034650 | 1.608850 |
| Maximum | 9.240000 | 3.751100 | 0.227300 | 6.166800 |
| Minimum | 0.290000 | 0.101900 | -0.051300 | 0.601600 |
| Std. Dev. | 2.598938 | 0.973982 | 0.069593 | 1.615356 |
| Observations | 40 | 40 | 40 | 40 |

Variable Y measured using PBV has a *minimum* value of 0.290 while *the maximum* value of 9.24 *mean* value is 2.896 while the *standard deviation* value is 2.598.

Variable X1 measured using DER has a *minimum* value of 0.101 while *the maximum* value is 3.751 *mean* value of 1.108 while the *standard deviation* value is 0.973.

Variable X2 measured using ROA has a *minimum* value of -0.051 while *the maximum* value of 0.227 *mean* value is 0.048 while the *standard deviation* value is 0.069

Variable X3 measured using CR has a *minimum* value of 0.601 while *the maximum* value of 6.166 *mean* value is 2.282 while the *standard deviation* value is 1.615.

3.1 Stages Of Data Testing

| Effects Test | Statistic | d.f. | Prob. |
|--------------------------|-----------|--------|--------|
| Cross-section F | 5.839190 | (7,29) | 0.0003 |
| Cross-section Chi-square | 35.176099 | 7 | 0.0000 |

Based on the test results, the *Chi-square Cross-section* profitability value is obtained which is smaller than the specified alpha limit of $0.0000 < 0.05$. Then the model that won this test is the *Fixed Effect Model*.

3.2 Hausman test

| Test Summary | Chi-Sq. Statistic | Chi-Sq. d.f. | Prob. |
|----------------------|-------------------|--------------|--------|
| Cross-section random | 1.033124 | 3 | 0.7932 |

The results shown in the table obtaining results from hausman test analysis, can be obtained *random cross-section* results with profitability values above the alpha limit of $0.7932 > 0.05$. Then it can be concluded that the hausman hypothesis test was rejected so that the estimated model worthy of use in this study is the *Fixed Effect Model*.

3.3 Lagrange Multiplier Test

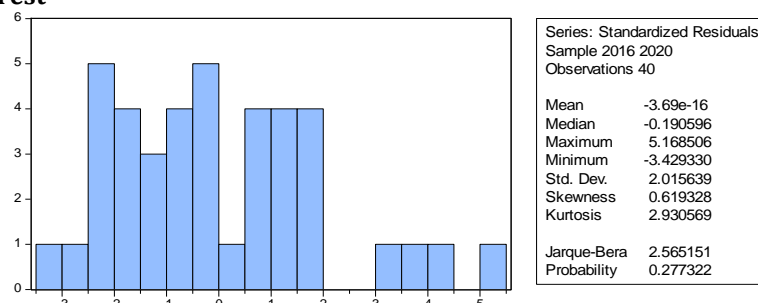
| | Test Hypothesis | | |
|---------------|----------------------|----------------------|----------------------|
| | Cross-section | Time | Both |
| Breusch-Pagan | 15.30920 (0.0001) | 0.803980 (0.3699) | 16.11318 (0.0001) |

*Mixed chi-square asymptotic critical values:

Based on the results of data that has been analyzed in 4.9 obtained, the result of profitability value in *Cross-section* which is smaller than 0.05 which is $0.0001 < 0.05$ then the model selected is *Fixed Effect Models*.

3.4 Classic Assumption Test

a. Normality Test



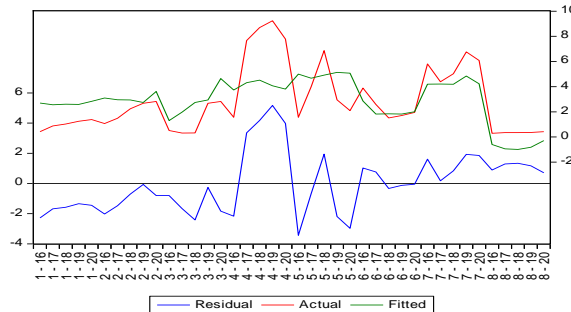
It can be known that the statistical test value in the test that has been carried out is 0.092 while the J-B profitability value is 0.277 ($0.277 > 0.05$) then the data that has been analyzed can be assumed to have been distributed normally.

b. Multicollinearity Test

| | DER_X1 | ROA_X2 | CR_X3 |
|--------|----------|----------|----------|
| DER_X1 | 1 | -0.49341 | -0.61826 |
| ROA_X2 | -0.49341 | 1 | 0.49223 |
| CR_X3 | -0.61826 | 0.49223 | 1 |

According to the observations from the table above shows the results of the multicollinearity test on its free variable with a *Variance Inflation Factor* (VIF) value of < 0.9 , it can be concluded that the data does not experience multicollinearity problems.

c. Heteroskedastity Test



Based on the results of the image above, it shows that the resulting output does not occur heteroskedasticity problems because the results of the graph displayed irregular lines.

d. Autokorelasi Test.

| | |
|----------------------|----------|
| Hannan-Quinn criter. | 4.417219 |
| Durbin-Watson stat | 0.699408 |

Based on the table that has been analyzed, it can be concluded that the resulting Durbin-Watson value is 0.6994 where the anga is between -2 to +2, it can be concluded that the autocorrelation test that has been done by the author does not occur autocorrelation.

3.5 Panel Data Linear Regression Analysis.

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|----------|-------------|------------|-------------|--------|
| C | 2.473090 | 1.035940 | 2.387291 | 0.0223 |
| DER_X1 | 0.952382 | 0.443511 | 2.147366 | 0.0386 |
| ROA_X2 | -16.20180 | 5.604630 | -2.890788 | 0.0065 |
| CR_X3 | 0.069934 | 0.267210 | 0.261721 | 0.7950 |

Effects Specification

| |
|---------------------------------------|
| Cross-section fixed (dummy variables) |
|---------------------------------------|

$$Y = 2,473 + 0,952X_1 - 16,201X_2 + 0,795X_3$$

$$Y = 2,473 + 0,952 \text{ DER} - 16,201 \text{ ROA} + 0,795 \text{ CR} + e$$

Based on the regression model, it can be explained that:

- a) At the level of *Debt Equity Ratio*, *Return On Asset*, and *Current Ratio* that have been analyzed, it can be concluded that the price to book value is 2,473.
- b) In his calculation, the value of the *Debt Equity Ratio* (DER) variable regression coefficient is positive, which means that this variable shows an influence on pbv. Then it can be concluded that the capital structure has an influence on pbv. This means that if the capital structure increases by 1 unit, it will experience a significant increase of 0.952.
- c) Based on observations of the regression coefficient value of the *Return On Asset* (ROA) variable has a negative value of -16,201 which means that this variable shows a negative influence on PBV. So it can be concluded, if the ROA decreases by 1 unit, it will experience a significant decrease of -16,201.
- d) In the calculations carried out, the regression coefficient of the *Current Ratio* (CR) variable has a positive value of 0.069 which means that this variable shows a positive influence on pbv. Then it can be concluded that if CR experiences an increase of 1 unit, it will experience a significant decrease of 0.0699.

3.6 Model Feasibility Test

This trial is done to assess whether the model of ysng is determined by pwnwliti worthy or not.

a. Test F

| | |
|-------------------|----------|
| F-statistic | 9.147418 |
| Prob(F-statistic) | 0.000124 |

Based on the data analyzed in table 4.13, it can be known that the value of $F_{ghicalc} 9,147 > F_{tabel} 3.23$ (Sig.) or the signification is $0.00124 < 0.05$, then according to the pre-determined criteria the four variables (free) in the research conducted have a significant influence on the variable (bound). So that it can be concluded that the model used is feasible in research.

b. Coefficient of Determination

| | |
|--------------------|----------|
| R-squared | 0.432555 |
| Adjusted R-squared | 0.385268 |

Through the observation of the results of table 4.14, the results showed that the value of the coefficient of determination or adjusted R Square value in the data that had been processed was 0.432. This means that the independent variables, namely DER (X1), ROA (X2) and CR (X3) can be concluded to have an effect on each other by 43.2% on the value of the company, while the other 56.8% is obtained from other variables outside of regression that are not studied by researchers. Then it can be concluded that the three variables X affect each other's variable Y by 43.2%.

c. T Test

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|----------|-------------|------------|-------------|--------|
| C | 2.473090 | 1.035940 | 2.387291 | 0.0223 |
| DER_X1 | 0.952382 | 0.443511 | 2.147366 | 0.0386 |
| ROA_X2 | -16.20180 | 5.604630 | -2.890788 | 0.0065 |
| CR_X3 | 0.069934 | 0.267210 | 0.261721 | 0.7950 |

- In variable X1 measured using *the Calculation Ratio Debt Equity Ratio* (DER) has a value (Sig.) of $0.0386 < 0.05$, meaning that the variable X1 has a significant effect on PBV.
- Variable X2 measured using *the ratio of calculation Return On Asset* (ROA) has a value (Sig.) of $0.0065 < 0.05$, meaning that the ROA variable has a significant influence on pbv.
- The Liquidity variable measured using the *Current Ratio* (CR) calculation ratio has a value (Sig.) of $0.7950 > 0.05$, meaning that the CR variable is not significant to the PBV.

3.7 Discussion**a. Effect of Debt Equity Ratio (DER) on Price to Book Value**

The results of the data that have been processed using Eviews version 9, can be concluded the value of $2,147 > a_{ttabel}$ of 2.026 and a value (Sig.) of $0.0386 > 0.05$, which means that the capital structure whose measurement uses *debt equity ratio* (DER) has a positive and significant effect on the company's PBV. ini has a meaning that, the company's DER has a positive effect or in line with research when financed by the company's debt.

This is in line with research (Firdaus & Fuadati, 2020) which states that abnormal positive returns mean that the profits obtained by companies obtained by investors are greater than the profits they should be, because it will provide benefits for financiers. It can be concluded that this hypothesis will be accepted..

b. Effect of Return on Asset (ROA) on Price to Book Value

In accordance with the results of the test that has been carried out, it can be concluded that $-2,890 < a_{ttabel}$ of 2.026 and a value (Sig.) of $0.0065 < 0.05$ with the measurement ratio used by the *Return On Asset* (ROA). This means that ROA has a negative and significant effect on the company's PBV, the effect is negative because ROA and PBV are fighting each other because, if the ROA rises then the company's PBV will fall, the opposite applies due to anomalous factors in 2020. Because it indicates the rate of return on the company's assets used in the opposite direction so that if roa experiences a decrease in the assets of the company

This research is in line with (Ali & Faroji, 2021) with the results of ROA research negatively affecting and which states that the results of the level of asset reversal and company value are in the opposite direction, so that if ROA drops the value of the company will increase, because in investing the company does not see only from its ROA. Then it can be concluded that, the hypothesis is rejected.

c. Effect of Current Ratio on Price to Book Value

Based on the research tests that have been conducted, it can be concluded that the calculation of 0.2672 < a t_{table} of 2.026 and a value (Sig.) of 0.7950 > 0.05 with the *current ratio* (CR) as the calculation ratio. It can be concluded that the results of the calculation CR have a negative influence on the company and are not significant on the PBV of the company. So it is true with the results of research conducted that CR has an influence on the company's PBV, so the company's CR is a calculation ratio in reflecting the company's PBV, but not significant because the average CR per year does not change large enough. In this study in line with (Salainti & Sugiono, 2019) which explained that CR has a negative and insignificant influence on the company's PBV. It can be concluded that, this hypothesis is not in the direction of research means the hypothesis is rejected.

4. Conclusion

Based on the results of research and results related to the Influence of *Debt Equity Ratio* (DER), *Return On Asset* (ROA) and *Current Ratio* (CR) on *Price to Book Value* (PBV) in the Automotive Sub-Sector and Components for the Period 2017-2021. The conclusions of this study can be obtained as follows:

- a. Capital Structure has a positive and significant effect on the company's value in the automotive sub-sector and components listed on the Indonesia Stock Exchange.
- b. The company's profitability has a negative and significant effect on the PBV of automotive sub-sector companies and components listed on the Indonesia Stock Exchange.
- c. The company's liquidity has a positive and insignificant effect on the *Price to Book Value* (PBV) in the automotive sub-sector and components listed on the Indonesia Stock Exchange,

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