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The Effect of Capital Structure and Asset Growth on Financial Performance in Automotive Sub-Sector Industrial Companies Listed on the Indonesia Stock Exchange (IDX)

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Abstract: *The purpose of this research is to test the effect of capital structure and asset growth on the financial performance of an automotive subsector business entity listed on the Indonesia Stock Exchange (IDX). In research conducted using a population of 10 business entities listed on the Indonesia Stock Exchange (IDX) for the 2016-2021 period. in processing the research data carried out applying multiple linear regression analysis. In the resulting research data it is shown that the partial capital structure for proxies using the Debt to Equity Ratio has a significant and negative effect on financial performance. where there is a negative effect caused by the higher capital structure makes the financial performance lower. the growth of wealth or assets does not have a significant effect on financial performance. This is due to the process of growing assets in a business entity, even though with a maximum, but accompanied by the existence of external financing sources as a form of causing an increase in the budget with a decrease in the level of financial performance that is carried out. The research conducted using the F test shows that simultaneously, capital structure and asset growth have a significant effect on the financial performance of a business entity with the automotive sub-sector industry on the IDX list for 2016-2021 with an effect of 22.85%.*

Keywords: *Capital Structure, Asset Growth, Financial Performance.*

Introduction. Every company has a goal to seek maximum profit to company. If the company can achieve these goals, the company can be considered to have good company performance. Increased business success provides a greater impetus than incremental innovation and creativity (Reniati, Santi, et al., 2019). On the other hand, companies that cannot achieve their goals need to analyze how the company is performing so that steps can be used to make the performance of a business entity change for the better. (Hutabarat, 2020).

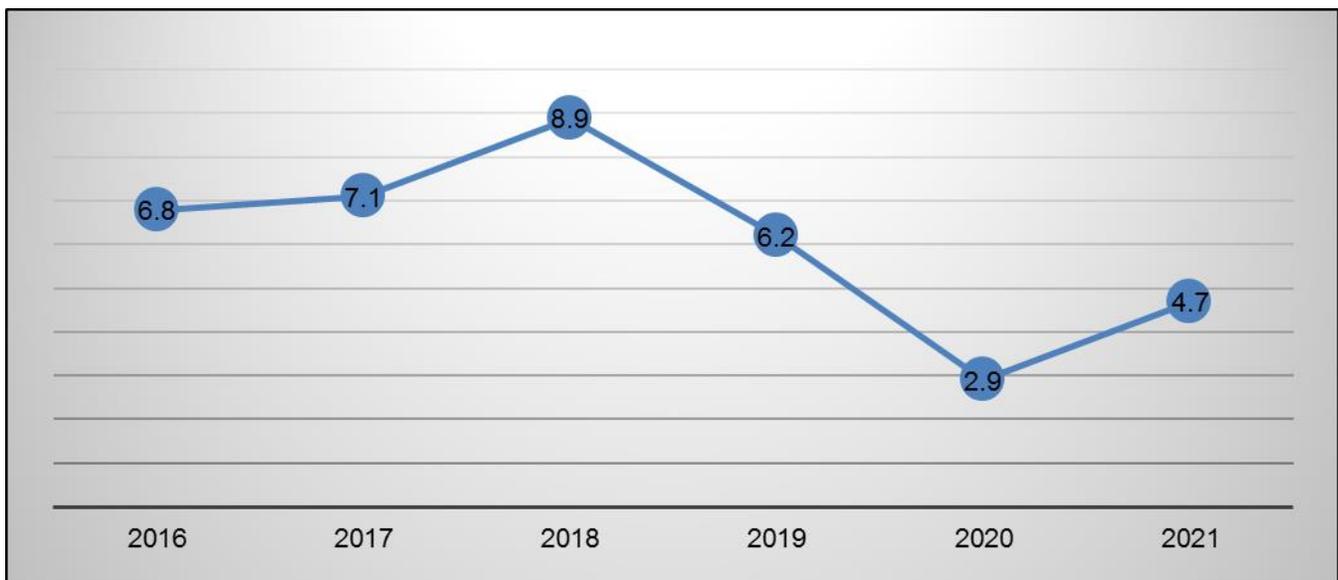
Looking at the current state of the Chinese economy, many analysts predict that China's economic growth could decline to close to 5% in 2020. The impact of the coronavirus outbreak in China continues to raise concerns, especially in the automotive sector, because most of the auto parts industry relies on China and cars cannot be assembled with only 99 percent of raw material components. As is known, China is a major supplier of spare parts for car manufacturers around the world. UN data mentions China as a

supplier with shipments of almost 35 billion US dollars of spare parts in 2018 and according to the International Trade Administration of the Ministry of Commerce, there were about 20 billion US dollars of Chinese components exported to the United States in 2018 (Safitri, 2020). The influence of China's economic conditions also has a negative impact due to the Covid-19 pandemic on economic actors such as (MSMEs) in the form of decreased sales revenue, reduced demand and hampered distribution of raw materials (Reniati, Faisal Akbar, et al., 2019).

Auto companies are starting to limit business travel to or from China in an effort to prevent the spread of the Corona virus. Corona virus, as the World Health Organization (WHO) has said, is a deadly epidemic with a fast spread rate. The impact of this virus has disrupted the business activities of various automotive companies in China. In fact, not a few of them have closed production and sales. A French automotive brand, PSA Group, which sells Peugeot and Citroen brand cars in China, has repatriated expatriate employees and their families from the Wuhan area, China. PSA Group is reported to have evacuated 38 employees from the Wuhan area. Further evacuations will be carried out in cooperation with the French and Chinese consulates (Kurniawan, 2020).

The automotive industry is very influential on the economy of a country, this is also of course related to the policies made by the government at that time. The automotive industry also has several branches such as the component industry, the assembly industry, the manufacturing industry, and others. The last five years between 2016-2021, the growth of the automotive industry in Indonesia reached 23.4 percent. This condition shows that automotive industry companies are experiencing relatively rapid development. The increase in the company was supported by a significant increase in added value in 2018, graphically the developments in the Automotive Industry can be seen in Figure I.1 below:

Figure 1. Development of the Automotive Industry in 2016-2021



Source: Automotive Industry Financial Report on the Indonesia Stock Exchange, 2022

Based on Figure 1 the Automotive Industry Sector in 2020 decreased by 2.9%, much lower than the growth in 2019 of 6.2%. Meanwhile, after experiencing very low growth in 2019 and 2020, in 2018 the automotive industry sector in Indonesia recorded a relatively high growth of 8.9%.

There are several analytical techniques that can be used to analyze and assess the company's financial condition and prospects for changes in earnings. One alternative to find out whether the resulting financial information can be useful for predicting changes in earnings, including future financial conditions, is by

conducting financial ratio analysis. Shows that the performance of each company in the Automotive Subsector Industry listed on the Indonesia Stock Exchange (IDX) has not been good because the profit growth obtained is far from what the company expects. Companies belonging to the automotive sector may be threatened with business continuity and there has been a discrepancy between expectations and reality in the Automotive Industry Subsector Companies listed on the Indonesia Stock Exchange (IDX).

For the object of this study, the authors chose the automotive sub-sector companies listed on the IDX for the 2016-2021 period, namely, in 2019 the Covid-19 outbreak phenomenon occurred which resulted in many workers being laid off, transportation accommodation was limited, and many workers worked from home. So that it affects the company's performance such as a decrease in sales and income. At that time, automotive companies experienced a decline due to the Covid-19 pandemic. Another thing, besides experiencing a decline, there are also certain years that have increased. The increase was due to government policies such as the new normal, PSBB and PPKM, as well as social distancing at that time to get through the Covid-19 pandemic. So where people generally avoid public transportation. In the end, people choose to have private transportation to carry out their daily activities.

Methodology. In the research carried out applying methods to collect data with quantitative data, and requires secondary data, which is secondary data as a form of research data source that is produced indirectly or using some relevant media literacy (Purwanto, 2015). The application of data analysis used in processing research data in the research carried out is applying panel data regression analysis. where in its definition regarding panel data regression analysis as a form of combining cross section and time series. The notion of the Time series itself is a research data composed of one or more variables followed by an observation on a research unit with a predetermined period. another is the notion of cross section data as a form of research data composed of various research units in one period. in the process of applying the panel data analysis method, there are three payment models for panel data regression, which are the Random Effect Model (REM), the Fix Effect Model (FEM), and the Common Effect Model (CEM). with frequent regression models, it is possible to determine which conditions are better to apply to test the regression. based on the stages, there are three stages of action taken to test panel data regression in the form of Lagrange Multiplier (LM) testing, Hausman testing, and Chow testing. Meanwhile, in research conducted to test the hypothesis by applying the coefficient of determination test, F test, and T test.

Main Part.

Table 1. Results of Descriptive Statistical Analysis

	Y	X ₁	X ₂
Mean	4,725340	106,4328	6,150350
Median	3,465000	71,69500	4,945000
Maximum	22,73000	375,1100	28,25000
Minimum	-2,100000	10,19000	-3,400000
Std. Dev.	6,204557	90,66968	6,447152
Skewness	1,601239	1,039538	1,278242
Kurtosis	5,108309	3,159310	4,99584
Jarque-Bera	36,75208	10,86984	26,32486
Probability	0,000000	0,004362	0,000002
Observations	60	60	60

In accordance with the contents of table 1, it can be shown regarding N with the amount of data in each variable, namely 60. The intended number was generated from 10 samples of an automotive business entity on the IDX list for the 2016-2021 period. shown where the financial performance (Y) has a

minimum rating of -2.100000 and a maximum rating of 22.73000. In the resulting data it is shown about the large influence of financial performance (Y) in an automotive sector business entity by being a sample in his research with a range of -2.100000 to 22.73000 which scores an average of 4.725340 using a standard deviation of 6.204557.

The capital structure (DER(X1)) has a minimum valuation of 10.19000 and a maximum valuation of 375.1100. The resulting research shows the capital structure (DER (X1)) of an automotive sector business entity as a sample in research conducted with a range of 10.19000 to 375.1100 with an average rating of 106.4328 using a standard deviation of 90.66968. On the other hand, asset growth (X2) has a minimum valuation of -3.400000 and a maximum valuation of 28.25000. in the resulting data it is shown regarding the magnitude of asset growth (X2) in an automotive sector business entity as a sample in research conducted with a range of -3.400000 to 28.25000 using an average rating of 6.150350 which applies a standard deviation of 6.447152.

1. Data Analysis

There are three model estimates in the panel data, namely CEM, FEM and REM. In order to make the best payment method in applying panel data regression by implementing several tests in the form of Lagrange Multiplier testing, Hausman testing and Chow testing.

a. Common Effect Model (CEM)

Table 2. Common Effect Model (CEM) Panel Data Regression Results

Variabel	Coefficient	Std. Error	t-Statistic	Prob.
C	5,389878	0,675161	7,983095	0,0000
X1	-1,056963	0,153193	-6,899532	0,0000
X2	0,126654	0,165202	0,766660	0,4472
Effect Specification				
Cross-section fixed (dummy variables)				
R-squared	0,509451	Mean dependent var	1,130527	
Adjusted R-squared	0,488122	S.D dependent var	1,369836	
S.E. Of regression	0,980058	Akaike info criterion	2,856859	
Sum squared resid	44,18360	Schwarz criterion	2,972685	
Log likelihood	-66,99305	Hannan-Quinn criter	2,900803	
F-statistic	23,88622	Durbin-Waston stat	0,789432	
Prob(F-statistic)	0,000000			

Source: e-views 12 output results, data processed by the author (2022)

b. Fixed Effect Model (FEM)

Table 3. Fixed Effect Model (FEM) Panel Data Regression Results

Variabel	Coefficient	Std. Error	t-Statistic	Prob.
C	3,792020	1,739932	2,179407	0,0357
X1	-0,604221	0,410432	- 1,472159	0,1494
X2	-0,062298	0,111659	- 0,557928	0,5803
Effect Specification				
Cross-section fixed (dummy variables)				
R-squared	0,856816	Mean dependent var	1,130527	

Adjusted R-squared	0,814248	S.D dependent var	1,369836
S.E. Of regression	0,590385	Akaike info criterion	1,992809
Sum squared resid	12,89651	Schwarz criterion	2,456112
Log likelihood	-36,82383	Hannan-Quinn criter	2,168586
F-statistic	20,12811	Durbin-Waston stat	2,479314
Prob(F-statistic)	0,000000		

Source: e-views 12 output results, data processed by the author (2022)

c. Random Effect Model (REM)

Table 4. Random Effect Model (REM) Panel Data Regression Results

Variabel	Coefficient	Std. Error	t-Statistic	Prob.
C	4,909236	1,092742	4,492583	0,0000
X1	-0,892467	0,246090	-3,626583	0,0007
X2	-0,042541	0,110204	-0,386023	0,7013
Effect Specification				
			S.D.	Rho
Cross-section random			0,835229	0,6668
Idiosyncratic random			0,590385	0,3332
R-squared	0,228483	Mean dependent var		0,325339
Adjusted R-squared	0,194938	S.D dependent var		0,648049
S.E. Of regression	0,588603	Sum squared resid		15,93685
F-statistic	6,811387	Durbin-Waston stat		2,003331
Prob(F-statistic)	0,002564			
Unweighted Statistics				
R-squared	0,486766	Mean dependent var		1,130527
Sum squared resid	46,22679	Durbin-Waston stat		0,690656

Source: e-views 12 output results, data processed by the author (2022)

d. Chow Test

Table 5. Chow Test Results

Effects Test	Statistic	d.f.	Prob.
Cross-section F	9,973607	(9,37)	0,0000
Cross-section Chi-square	60,338454	9	0,0000

Source: e-views 12 output results, data processed by the author (2022)

In accordance with Chow's test by measuring in table 5, the significance of the assessment obtained by Cross-section F and Cross-section Chi-square is 0.0000 (no more than 5%), which means H_a is accepted and H_0 is rejected, so that the estimation the model obtained in the form of a protocol that is suitable for an application of panel data regression, namely the Fixed Effect Model.

e. Hausman test

Table 6. Hausman Uji Test Results

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	1,850476	2	0,3964

Source: e-views 12 output results, data processed by the author (2022)

In accordance with the Hausman test shown in table 6, a significance value was obtained from the random cross-section of 0.3964 (exceeding the value of 0.05) so that statistically H_a was rejected and H_o was accepted, then the appropriate estimation model was applied to panel data regression, namely Random Effects Model.

f. M test

Table 7. Lagrange Multiplier (LM) Test Results

	Cross-section	Test Hypothesis Time	Both
Breusch-Pagan	39,07261 (0,0000)	1,591081 (0,2072)	40,66369 (0,0000)
Honda	6,250809 (0,0000)	-1,261380 (0,8964)	2,698880 (0,0035)
King-Wu	6,250809 (0,0000)	-1,261380 (0,8964)	2,698880 (0,0035)
Standardized Honda	7,299092 (0,0000)	-1,054616 (0,8542)	1,262230 (0,1034)
Standardized King-Wu	7,299092 (0,0000)	-1,054616 (0,8542)	0,384430 (0,3503)
Gourieroux, et al.	-	-	39,07261 (0,0000)

Source: e-views 12 output results, data processed by the author (2022)

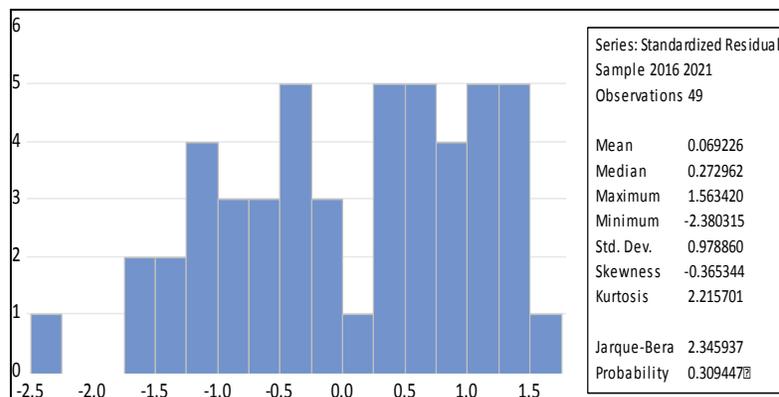
According to the data shown in table 7, the resulting LM test shows the Bruesch-Pagan profitability of 0.0000, which makes H_a accepted and H_o rejected. So that the suitability of the estimation model applied in the panel data regression is the Random Effect Model.

g. Classic Assumption Test

1. Normality Test

If the profitability assessment is significantly higher than 0.05, then H_o is accepted, which can be interpreted in other terms, namely the data is normally distributed. Conversely, if the profitability value is significant, the value is lower than 0.05 which makes H_o rejected, which can be interpreted in other terms, the data is not normally distributed.

Figure 2. Normality Test Results



Source: E-views12 output results, data processed by the author (2022)

In accordance with Figure 2 it is shown regarding the probability assessment which is 0.309447 which is stated to be higher than the level of significance with a predetermined form of 0.05 ($0.309447 > 0.05$), in this case a conclusion is obtained about the data distributed in a normal way.

2. Multicollinearity Test

In the multicollinearity test that is applied to identify the existence of a form of correlation to the dependent variable and the independent variable. if the value exceeds 0.90, a statement can be drawn which indicates the existence of multicollinearity.

Table 8. Multicollinearity Test Results

	X_1	X_2
X_1	1.000.000	0.163560
X_2	0.163560	1.000.000

Source: e-views 12 output results, data processed by the author (2022)

In accordance with the contents of the data in table 8 it can be shown an assessment of a correlation that occurs in the Capital Structure (X_1) and Asset Growth (X_2) is 0.16356. It can be seen that all data are less than 0.90 ($0.16356 < 0.90$), a conclusion is obtained that there are no problems that occur in multicollinearity.

3. Heteroscedasticity Test

In a study conducted, the application of the test used Glejser. If the output has a p value < 0.05 then heteroscedasticity occurs and vice versa if the p value > 0.05 which makes there is no heteroscedasticity event.

Table 9. Heteroscedasticity Results

Variabel	Coefficient	Std. Error	t-Statistic	Prob.
C	0,588388	0,386391	1,522780	0,1347
X_1	0,035376	0,087781	0,402996	0,6888
X_2	0,054296	0,070311	0,772237	0,4439

Source: e-views 12 output results, data processed by the author (2022)

Based on the heteroscedasticity test in Table 9 using the Glejser test, it can be shown regarding the assessment of the probability of capital structure (X_1) which is 0.6888, as well as the assessment of the probability of asset growth (X_2) which is 0.4439. according to the thing intended, a conclusion is obtained regarding the absence of heteroscedasticity events for some of the independent variables in the regression model.

4. Hypothesis Testing

1. Coefficient of Determination Test (R-Square)

In the R-Square test, it is explained by an assessment of the level of strength and competence of the independent variables to provide an explanation of the dependent variable. according to the regression test data generated using the Random Effect Model it is shown that the R-square assessment obtained is 0.228483. in this case it is shown regarding various forms of the dependent variable in the form of financial performance in a simultaneous manner can provide an elaboration of the independent variables in the form of asset growth and capital structure which amount to 22.85%, in contrast to the remaining amount of 77.15% indicated by several other factors outside the variables in conducting a study.

2. F Test (Simultaneous Test)

In the research conducted, several hypotheses were obtained in the F test, namely:

H_0 : Asset Growth and Capital Structure at the same time do not have such a significant effect on Financial Performance

H_a : Asset Growth and Capital Structure simultaneously have a very significant effect on Financial Performance

By Criteria:

If the significance assessment is > 0.05 , H_0 is accepted and H_a is rejected

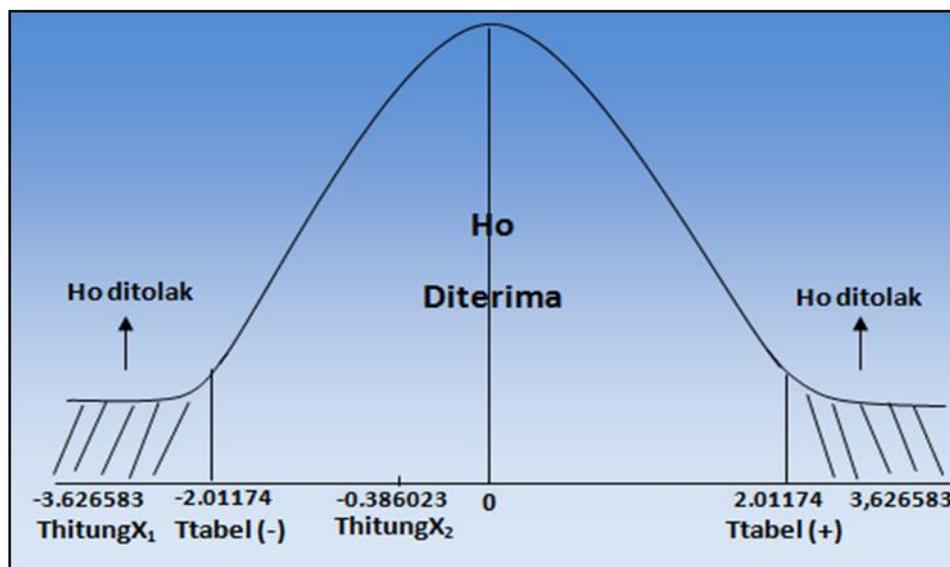
If the significance assessment is < 0.05 , H_0 is rejected and H_a is accepted

In accordance with the acquisition of the Random Effect Model (REM) regression value resulting from F count which is 6.811387 and F Table with a magnitude of 3.199582 in the probability assessment which is 0.002564 can be interpreted < 0.05 . The F-Count rating is higher than F-Table ($6.811387 > 3.199582$) which makes H_a accepted and H_0 rejected. conclusions obtained regarding a variable asset growth and capital structure simultaneously give a significant influence on financial performance.

3. T Test (Partial Test)

The T-test was carried out with the aim of identifying the effect of the independent variables on the growth of an automotive business entity on the Indonesian Stock Exchange list in a partial way. according to the resulting Random Effect Model (REM) regression data, namely by obtaining T count/Tstatistics of capital structure which is -3.626583 and Tcount of asset growth which is -0.386023. it is different in the T table assessment which is 2.01174.

Figure 3. Curve 2 Sides T Test



Source: data processed by the author (2022)

The hypotheses in this T-test study are:

H_{0X_1} : Capital Structure has no effect and is significant on Financial Performance

H_{aX_1} : Capital Structure influences in a significant way and negative on Financial Performance

H_0X_2 : Asset Growth does not have a significant effect on Financial Performance

H_aX_2 : Asset Growth has a significant and negative effect on Financial Performance

1. Capital Structure (DER/ X_1)

Based on Figure 3 the value of Tcount in X_1 is -3,626583 which is in the area where H_0 is rejected (left side) meaning H_a is accepted, which makes a conclusion regarding the capital structure have a significant and negative effect on the financial performance of a business entity that is run

2. Asset Growth Variable (X_2)

In accordance with a Figure 3 which is shown by the Tcount assessment in X_2 which is -0.386023 the condition is in the area where H_a is rejected and interpreted as H_0 is accepted, which makes a conclusion about the process of growing assets not having a significant effect on the financial performance of a operated business entity

1. Effect of Capital Structure on Financial Performance

Based on the Output Random Effect Model (REM) the value of Tcount for Capital Structure is -3.626583 and the value of Ttable is 2.01174. Because Tcount is negative, a two-tailed test (Two-Tailed) is carried out on 2 sides of the curve (left and right). Based on Figure 3 the value of Tcount in X_1 is -3.626583 in the area where H_0 is rejected (left side) meaning that H_a is accepted, which makes a conclusion about the capital structure having a negative effect on the financial performance of a business entity. Meanwhile, the significant value obtained at $0.0007 < 0.05$ indicates that the capital structure variable is proven to be significant on financial performance. In this case, it is interpreted that the capital structure has a significant and negative effect on the financial performance of a business entity.

In accordance with the second hypothesis in a statement regarding the influence of capital structure on the financial performance of a business entity that is acceptable, but in research conducted the effect is negative as indicated by the greater the capital structure the smaller the level of financial performance in a business entity. The larger the capital structure, the higher the proportion of debt to equity, which makes the burden borne by a business entity on external parties even greater. This means that the use of debt will affect the risks and profits obtained by the company. In this case, it is in accordance with the results produced in the theoretical trade-off model with the appearance of increasing profits and increasing the risk of financial distress caused by something in the capital structure of a business entity. in a study produced with the same analysis as his research conducted by Pebri Yanti Karnopa Saragih et al., 2018 and Fauzi & Puspitasari 2021 by providing a statement regarding capital structure having a significant negative effect on financial performance. however, this is not the same in a study conducted by Muhammad Arya Rahman in 2020 by providing a statement regarding capital structure having a significant positive effect on the financial performance of a business entity.

2. The Effect of Asset Growth on Financial Performance

In accordance with the Output Random Effect Model (REM) which is produced in the T-count assessment in a Capital Structure variable whose magnitude is -0.3866023 and the T-table rating which is 2.01174. this is caused by a negative Tcount which makes the test carried out in two conditions (Two-Tailed) in 2 curve conditions (left and right). according to the data shown in Figure 3 the Tcount assessment of X_2 is -0.386023 in an area where H_a is rejected and can be interpreted as H_0 being accepted, this makes it possible to draw a conclusion regarding the growth of assets does not have an effect on the financial performance of a business entity. it is different from the significant assessment that is generated and obtained with a number of $0.7013 > 0.05$ by showing that a variable asset growth is not significant in the financial performance of a business entity. which in a sense, there is no influence and the process of

growing assets significantly on the financial performance of a business entity.

In accordance with the third hypothesis testing by giving a statement regarding the effect of growing assets on the financial performance of a business entity, was rejected. in this case it is caused by the growth of an asset in a business entity even though it is so large but accompanied by the presence of an external source of financing which makes it a cause for increased financing by reducing the level of financial performance of a business entity. in the research conducted and the resulting statement is similar to a study by Andelline & Widjaja, 2018 by providing a statement regarding the growth of assets does not have a partial effect on the financial performance of a business entity. is not the same as Muhammad Arya Rahman's research in 2020 by providing a statement regarding the growth of assets does not have a significant negative effect on the financial performance of a business entity..

3. Effect of Capital Structure and Asset Growth on Financial Performance

In accordance with the value generated by the Random Effect Model (REM) regression indicated by the Fcount of 6.811387 and the F Table of the number of 3.199582, the probability assessment is 0.002564 and can be interpreted as <0.05 . in the F-Count assessment it is higher when compared to F-Table ($6.811387 > 3.199582$) which makes H_a accepted and H_o rejected. a conclusion is obtained regarding the variables of asset growth and capital structure in a way that simultaneously influences the significance of the financial performance of a business entity. in accordance with the initial hypothesis which gives a statement regarding the influence of asset growth and capital structure on financial performance that is accepted by a business entity. in the research conducted and the results are similar to the research conducted by Muhammad Arya Rahman in 2020 by providing a statement regarding asset growth and capital structure having a significant effect on the financial performance of a business entity. other things that are not in line with the research produced by Victor P. Tandi et al., 2018 by providing a statement regarding asset growth and capital structure in a simultaneous way that does not affect profitability.

Findings. In a study that is in accordance with the acquisition of data on business entities in the automotive sub-sector industry on the list of the Indonesia Stock Exchange for the 2016-2021 period and data processing is carried out on the effect of capital structure (X1) and asset growth (X2) on financial performance, some conclusions are obtained as follows :

1. In testing the hypothesis generated by simultaneous way, a statement is given regarding the significant influence that occurs on the variable Asset Growth and Capital Structure on the financial performance of a business entity.
2. In accordance with the hypothesis testing that is generated by means of a partial method, a statement is obtained regarding the capital structure variable that has a significant and negative influence on the financial performance of a business entity. not only with this alone, in the asset growth variable it does not have a significant influence on the financial performance of a business entity.
3. In terms of the influence value of the large capital structure variable (Debt Equity Ratio), the growth of assets in the financial performance of an automotive subsector business entity for the 2016-2021 period was obtained with a magnitude of 22.85%

Recomendation.

1. Advice For Companies

Based on the results of the study indicate that the capital structure as measured by using DER, proved to have a negative effect on financial performance. The negative effect is because the higher the capital structure, the lower the financial performance. This shows that funding from within the company does not improve the company's financial performance. Funding in the form of loans burdens the company with

loan interest whose interest rate is higher than the investment return rate. Therefore, the owner of the company should consider the capital structure in other ways than loans so as not to have an effect that brings the company into bankruptcy.

2. Advice For Investors

For investors, they should consider both the capital structure and asset growth in making investments. This needs to be considered so that even investors in making investments can receive good returns.

3. Suggestions for Future Researchers

For further researchers, it is recommended to use a sample of all types of automotive companies on the Indonesia Stock Exchange, and a longer research period in order to obtain more generalized results. And adding research variables other than capital structure using the DER ratio, asset growth as an independent variable and financial performance using ROA as the dependent variable. Because, there are many other factors or variables that can affect the financial performance of the automotive sub-sector industrial companies listed on the IDX.

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