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The Effect of Profitability, Asset Structure on Capital Structure in Registered Chemical Sub-Sector Companies on IDX from 2018-2020

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Abstract

The purpose of this study is to find out how profitability and asset structure can affect capital structure with the research target being 12 chemical sub-sector companies listed on the Indonesia Stock Exchange (IDX) during 2018-2020. Profitability and asset structure are independent variables and capital structure is the dependent variable in this study. This research uses purposive sampling technique. The data used in this study is secondary data taken from www.idx.co.id. This research uses multiple linear regression analysis model. This study obtained results that prove that profitability has a positive effect on capital structure while asset structure has a negative effect on capital structure. The coefficient of determination analysis shows that the adjusted R square value on the coefficient of determination test is 4.9%, where the remaining 95.1% is influenced by other variables. This shows that the independent variables in this study are not sufficiently influential on the capital structure because there are still many other variables that have a major influence on the capital structure.

Keywords
Profitability; asset structure; capital structure

I. Introduction

Many companies are established in Indonesia which in this case, companies are another competition. Especially in companies with the same industry. Therefore, the company must make a way to get the best position. To compete, the Company must pay attention to the sources of funds that can be used to facilitate production activities and therefore the Company can develop (Kartika, 2016). Therefore, company management needs to know what factors affect the capital structure so that businesses can maximize investor welfare. Capital structure is a trade-off between the use of long-term debt to finance investment, so that the balance between the level of risk and invested capital can be known. (Puspawardhani, 2014). Capital structure as equilibrium is the sum of permanent short-term debt, long-term debt, preferred stock, and common stock, and capital is identified as an important reason for the growth or failure of a company (Watung, 2016). The capital used for operations does not only come from the company itself (retained earnings) but also capital from other parties (creditors) so that the company can produce more optimally. On the other hand, large long-term use can lead to the risk of default on the interest that must be paid (Ardani et al., 2016) The higher the company's leverage, the company tends to generate less cash, this is likely to affect the occurrence of earning management. Companies with high debt or leverage ratios tend to hold their profits and prioritize the fulfillment of debt obligations first. According to Brigham and Ehrhardt (2013), the greater the leverage of the company, it tends to pay lower dividends in order to reduce dependence on external funding. So that the greater the proportion of

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debt used for the capital structure of a company, the greater the number of liabilities that are likely to affect shareholder wealth because it affects the size of the dividends to be distributed. (Yanizzar, et al. 2020)

When a company has an unbalanced capital structure, which has very high debt, this will greatly burden the company concerned, so it is important to know the factors that affect the capital structure. (Puspawardhani, 2014). Several factors affect capital structure, including sales operations, asset structure, leverage, growth rate, profitability, taxes, controls, management attitudes, lenders and rating agencies, market conditions, internal company conditions, and financial flexibility (Brigham & Houston, 2006). The first factor that affects the capital structure is the asset structure. The greater the long-term, the greater the long-term debt of the company because the assets owned by the company will be a guarantee of payment and will determine the capital structure. If most of the capital owned by the Company is integrated with fixed assets, the company prioritizes the use of its own capital and external capital is additional. The company has a larger number of current assets which will prioritize short-term use (Riyanto, 2001). The second factor that affects the capital structure is profitability where we can see how profitable the company is, especially in using current assets and fixed assets. When the company has large profits, the company's profit ratio will also be higher. If the company can finance it using internal funds, the use of debt funds will be smaller to avoid debt and the risk of bankruptcy due to failure (Watung. 2016).

Previous research by (Sembiring et al., 2021) yield, asset structure affects capital structure, but in research conducted by (Mubarok et al., 2017) shows that the asset structure does not affect the capital structure study (Andriansyah & Suharto, 2019), the result is that profitability has an effect on capital structure, but there is a study conducted by (Sembiring et al., 2021) The result is that profitability does not affect the capital structure. So based on the background described above, there is an inequality of research results, this research must also contribute theory in the form of empirical evidence regarding the impact of profitability and asset structure simultaneously on capital, the results of this study will also complement knowledge and reference material for other researchers.

This study focuses on the independent variables that affect the company's capital structure, namely profitability and asset structure. Based on the introduction and several previous studies, the researcher wants to conduct research related to profitability, asset structure and capital structure.

II. Review of Literature

2.1 Capital Structure

According to Brigham (2011), capital structure is a comparison or balance between the company's long-term resources as indicated by the comparison of long-term debt with equity. Meet the company's funding needs from own capital from equity, retained earnings and reserves. If the company's financing from its own capital is still in deficit, it is necessary to pay attention to external financing for the company, namely debt. In this study the capital structure is proxied by the Debt to Equity Ratio (DER).

$$\text{DER} = \frac{\textit{Total Utang}}{\textit{Total Ekuitas}}$$

2.2 Profitability

Profitability can be assessed and measured by the profits obtained from business operations with the assets used to generate these profits. according to(Nurhayati, 2013)Profitability is a ratio that measures the company's ability to generate profits. The main goal to be achieved by the business is to get the maximum profit and increase the profit of the business. In this study, profitability uses the Return on Assets (ROA) indicator.

$$ROA = \frac{Laba\ Bersih}{Total\ Aset}$$

2.3 Asset Structure

According to(John, 2014), asset structure is the balance between fixed assets and the number of assets owned by the entity. according to(Ariyani et al., 2019)assets have 98% of the total assets owned by the company to manage the operation of its structure. Asset structure used by companies to determine the importance of external capital structure in the form of long-term debt in their capital structure. The larger the fixed assets owned by the unit, the more debt the business can claim. The amount of fixed assets will be the basis for creditors to lend. In this study, the asset structure uses the Fixed Asset Ratio (FAR) indicator.

$$FAR = \frac{Total\ Aset\ Tetap}{Total\ Aset}$$

2.4 Effect of Profitability on Capital Structure

Profitability is the ability to generate profits. Companies with high profitability indicate that the company has a high level of debt. A high level of understanding supports the company to finance its investment needs through its internal funds. According to the pecking order theory, companies with high profitability will tend not to use debt to finance their investment needs, so retained earnings will increase and the debt ratio will decrease assuming the company does not increase its debt. External funding will be used as an alternative if internal resources are no longer sufficient. This is supported by previous research conducted by(Deviani & Sudjarni, 2018),(Ramadan & Fitra, 2019),(Gunadhi & Putra, 2019),(Sawega & Isynuwardhana, 2019), shows that profitability has a significant and negative effect on capital structure.

H1: Profitability has a significant positive effect on capital structure

2.5 Effect of Asset Structure on Capital Structure

Asset structure is a comparison between the number of fixed assets relative to the total assets owned by the company(John, 2014). Companies with more fixed assets will find it easier to get credit from creditors. Fixed assets in the form of land and buildings can be used as collateral for trade debts. This is in accordance with the trade-off theory which explains that additional debt is always permitted during the company's useful life and has fixed assets as collateral. Based on observations(Suweta & Dewi, 2016), the results of the study indicate that the asset structure has a positive effect on the capital structure. This is in accordance with research(Sahabuddin, 2017),(Buana & Khafid, 2019), states that the higher the asset structure of the company, the more debt the company will use as capital. Based on the results of these studies, it can be concluded as follows:

H2: Asset structure has a negative effect on capital structure

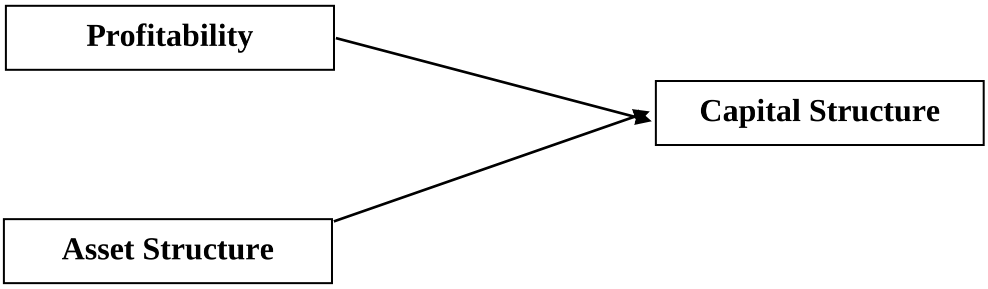

Figure 1. *Thinking Framework*

III. Research Method

This study uses a descriptive verification method, with temporary data collection from the company's annual report. This data is processed, analyzed, and publicly available. The type of data used in this study is secondary data contained in the annual reports of chemical sub-sector companies listed on the IDX for the 2018-2020 period. Method The data collection used is purposive sampling by using financial statements throughout the 2018-2020 period which provide comprehensive financial reports.

IV. Result and Discussion

The data described in the table shows that the data survey consists of 36 observations for each variable. The data also shows that the variability of the survey data is very good. Descriptive analysis is used to describe and analyze the data. "This analysis is carried out by considering the maximum, minimum, mean and standard deviation values" (Imam Ghozali, 2014).

Table1. Descriptive statistics

	N	Minimum	Maximum	Means	Std. Deviation
DER(Y)	36	-5.21	5.11	,5336	2.08216
ROA (X1)	36	-,13	,11	.0328	,04327
FAR (X2)	36	.03	,73	,4458	,20676
Valid N (by list)	36				

Based on Table 1, it can be seen that the minimum, maximum, mean and standard deviation of the profitability, asset structure, and capital structure variables, where the amount of data used is 36. The capital structure using DER has a minimum value of -5.21 the maximum value, 5, 11, the mean value is 0.5336 with a standard deviation of 2.08216. The profitability variable measured using ROA has a minimum value of -0.13, a maximum value of 0.11, an average value of 0.0328 with a standard deviation of 0.04327. The Asset Structure variable measured using FAR has a minimum value of 0.03, a maximum value of 0.73, an average value of 0.4458 with a standard deviation of 0.20676

4.2 Data Feasibility Test

The classical assumption test was first carried out to determine whether the panel data in this study was feasible to use. Thus, the classical assumption test of this study includes multicollinearity, heteroscedasticity, and autocorrelation tests. The results of the multicollinearity test prove that the variance inflation factor (VIF) ROA is 1.135 or <10 and the Tolerance is 0.881 > 0.100, the variance inflation factor (VIF) FAR is 1.135 or <10 and the Tolerance is 0.881 > 0.100. have a multicollinearity problem. The results of the heteroscedasticity test show a significance value of ROA 0.108, FAR 0.685 or > 0.05, so the data does not contain heteroscedasticity problems. The results of the autocorrelation test also showed that the Durbin Watson test had a d value of 0.507.

4.3 Coefficient of Determination Test (R2)

Table Results 2 shows that the value of R Square with ROA variable is equal to 0.049 this shows that the magnitude of the effect of ROA to the capital structure of 4.9% and 95.1% caused by other factors outside the research conducted.

4.4 Significant Test t

Table 3. Coefficient

Model		Non-standard coefficient		Standard Coefficient	t	Signature.	Collinearity Statistics
		B	Std. Error	Beta			Tolerance
1	(Constant)	,399	,982		,406	,687	
	ROA (X1)	13,948	8,451	,290	1.650	,108	,881
	FAR (X2)	-,724	1,768	-,072	-,409	,685	,881

The results in Table 2 show that the profitability variable that uses ROA has an effect on financial distress with a significance level of 0.108 or greater than 0.05 with a regression coefficient of 13,948 which means this variable has a significant positive effect. While the effect of FAR on capital structure has a significance level of 0.685 or greater than 0.05 and a regression coefficient value of -0.724 this has a negative effect on the effect of the influence on capital structure.

4.5 F. significant test

Table 4. ANOVAa

Model		Number of Squares	df	Square Average	F	Signature.
1	Regression	15,713	2	7.857	1,906	,165b
	Remainder	136,026	33	4.122		
	Total	151.739	35			

Test ANOVA is used to test the variable influence of profitability, asset structure on capital structure. The table shows that the calculated F-number is 1.906 with a significance level of 0.05, and a significance value of 0.165 and it can be said that profitability and asset structure have an effect on capital structure.

4.6 Result of Regression Equation

Based on the results calculation using the SPSS program, the results of multiple linear regression analysis of research variables are as follows:

$$\mathbf{Y = 0.399 + 13.948X1 - 0.724X2 + e}$$

The regression equation shows several things:

1. If all the coefficients of the independent variables are zero, the DER value is: 0.399 The constant value shows a positive value of 0.399, this reveals that the Debt to Equity Ratio (DER) value is 0.399 when there is no influence of the ROA and FAR variables.
2. The value of Return on Assets (ROA) is 13,948, this shows that an increase of one unit in ROA increases the Debt to Equity Ratio (DER) to 13,948
3. The value of Fixed Asset Ratio (FAR) is 0.724, this shows that an increase of one unit in FAR increases the Debt to Equity Ratio (DER) to 0.724

4.7 Discussion

a. Effect of Profitability on Capital Structure

Profitability has a positive and significant effect on capital structure. That is, an increase in company profits will increase the capital structure. On the other hand, if the company's profitability is high, the capital structure will increase. The higher the profit of a company, the more likely it is to use debt to generate more profits from tax deductions on the use of debt. The results of this study are in accordance with research conducted by(Sari et al., 2020).

b. Effect of Asset Structure on Capital Structure

Asset structure has a negative effect on capital structure. These results determine that the chemical sub-sector company has the main economic source for the company to produce its sales products, namely the structure of assets, especially fixed assets, and fixed assets owned. increase in revenue and will provide benefits for the company with the amount of profit earned if the company's main capital profit, so that the composition of the capital structure owned by the company is relatively smaller. The results of this study are supported by research(Ivander & Iskak, 2019),(April, 2015)which shows that the asset structure has a negative effect on the capital structure. The higher the asset structure of the company, the more likely the company is to reduce the use of debt.

V. Conclusion

The conclusion of this study is that profitability has a positive effect on the capital structure of the chemical sub-sector company, meaning that the company's profitability will increase the capital structure. Conversely, if the level of profitability of a company is high, then the capital structure will increase. Furthermore, the asset structure has a negative effect on the capital structure of the chemical sub-sector company, this explains that the hypothesis is accepted, so that the results obtained from the hypothesis supported by the asset structure have a negative effect on the capital structure. This shows that the higher the structure of the company's assets, the company tends to reduce the use of debt.

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