

# The Determinants of Capital Structure In Manufacturing Companies Listed on The Indonesia Stock Exchange

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## Abstract

This study aims to analyze the Effect of Profitability (ROA), Asset Structure, Sales Growth, Company Size and Dividend Policy on Capital Structure (Case Study of Manufacturing Companies Listed on the Indonesia Stock Exchange 2015-2019 Period). The population used in this study is a company that is included in the category of manufacturing companies listed on the IDX in 2015-2019, totaling 148 companies. This study amounted to 30 companies in the five year study period, so the research data amounted to 150 data. The data collection method is done through documentation study; the analysis method uses multiple regression analysis. Testing in this study indicates that Return on Assets (ROA), Assets Structure (SA), Company Size, and Dividend Payout Ratio positively affect capital structure. In contrast, Sales Growth does not affect Capital Structure.

## Keywords

Return on Assets, Assets Structure, Dividend Payout Ratio, Sales Growth, Capital Structure

## 1. Introduction

Companies must have the right funding decisions to compete in this era of globalization; this urges supervisors to assume a part in deciding the ideal capital design for the organization. The ideal capital design should be in balance between amplifying risk and return. Therefore, the capital structure needs to be considered to obtain the right capital structure. Financial managers need to take into account the various factors that affect the capital structure. Knowing what factors influence the capital structure, it is hoped that financial managers will get the optimal capital structure. The number of phenomena studied regarding the capital structure in Indonesia's manufacturing companies where these companies' debt policy has a higher level of debt than capital to carry out their operational activities, making managers need to decide the proper capital construction (Iskamto, 2020; Sutomo, 2020).

The various factors that affect the capital structure are profitability. A profitability ratio is a proportion that depicts the organization's capacity to get benefits as seen from benefit. Companies with high return or profitability rates tend to use their funds or retained earnings obtained from their operations to continue their operations (Karadeniz et al., 2009). Following the pecking order theory, supervisors like to utilize held income to make funding decisions as research conducted by Joni & Lina (2010) states that profitability hurts its capital structure. In contrast to a study conducted by Margaretha & Ramadhan (2010) and Hendri Nur et al. (2015) profitability positively affects capital structure.

Company size is a description of the company's financial capacity in a certain period (Chen & Chen, 2011; Iskamto, Yapentra, Budi Ansori, et al., 2020). The larger the company's size, the greater the tendency for the company to use external funds more (Riaz & Afzal, 2011). Research conducted by (Sutomo, 2020) and (Frank & Goyal, 2009) shows that company size positively affects capital structure. Meanwhile, research directed by (Çekrezi, 2013) states that company size negatively affects capital structure.

Sales growth is one of the factors in determining funding decisions. Companies with high sales and profit growth rates will in general utilize obligation as a more significant external fund source than companies with low sales growth rates (Hendri Nur et al., 2015). Several studies on sales growth conducted by (Mishra, 2011) which shows the results that sales growth affects capital structure.

Resource structure is additionally one of the variables that can impact obligation strategy. Asset structure is the number of funds allocated for each asset component, current assets, and fixed assets. Companies that invest most of their capital in fixed assets will use their wealth to fulfill their money, while loan capital is only a complement (Rumende, 2013). Fixed assets as collateral can convince external parties to provide loans so that if a company has large fixed assets, it will be easier to obtain loans. If the fixed assets are getting bigger, there is a tendency for bigger loans that can be obtained because fixed assets can be used as collateral (Umer, 2014). Resource structure has a positive and huge impact on capital structure. Meanwhile, (Mishra, 2011) stated that the asset structure has no impact on the company's capital structure. The determination of the allocation for each component of assets, both in current assets and in fixed assets, does not impact the capital structure. Thus, the lower the company's asset structure indicates, the lower the company's ability to guarantee its debts (Baker & Martin, 2011; Iskamto, Ghazali, & Aftanorhan, 2020).

Dividend policy can be estimated utilizing the dividend payout ratio (DPR). Research on dividend policy by (Cheng & Shiu, 2007) found that dividend policy has a critical constructive outcome on capital design. High dividend policy has an increasing impact on debt policy. (Riaz & Afzal, 2011) found that dividend policy negatively affects capital structure, which implies that a low dividend proportion utilizes high credits. Purwasih, Agusti, and Azhar (2014) expressed results, which state that dividend policy doesn't significantly affect capital structure.

This study replication previous studies, using manufacturing companies as research objects from the period 2015-2019. The researchers chose this company because, in Indonesia, manufacturing companies are multiplying lately. Many indicators can be seen in society, namely the increasing number of manufactured products in circulation, such as products from the automotive sector, food, beverage, electronics, cigarettes, cosmetics, etc. Each manufacturing company has various types of products to consumer tastes and needs. Manufacturing companies have total current assets with a relatively large proportion of all company assets. Company managers, especially manufacturing companies, have to manage their working capital appropriately. Manufacturing companies use working capital to carry out daily operational activities. Working capital management deals with company liabilities. Manufacturing

companies carry out operational activities by purchasing goods from suppliers either in cash or credit. If the purchase of goods from suppliers is made on credit, the accounts payable will increase so that the company cannot pay the debt (Brigham, 2013).

### 1.1 Objectives

The motivation behind this examination is to dissect whether profitability, asset structure, sales growth, company size, and dividend policy have a partial or simultaneous effect on capital structure.

## 2. Literature Review

(Chen & Chen, 2011) states that the capital structure is a correlation between long term obligation and equity. Capital structure alludes to the extent of resources financed with straight obligation and regular equity (Baker & Martin, 2011). The monetary chief of a company must formulate the right funding decisions to create an optimal capital structure for the company. (Brigham, 2013) state that the ideal capital design is a capital construction that advances the equilibrium of profits and dangers so the organization's offer cost turns into a greatest. The higher the use of debt, the greater its risk, but the rate of return expected by the company is also getting more significant. The company's stock price tends to decrease if the company's risk is higher due to the use of debt, but the company's stock price will increment if the pace of return expected by the organization is more astounding..

The profitability ratio intends to quantify its capacity to procure benefits in deals, resources, and capital. Organizations that have high benefit will pay off past commitments. The company allocates most of its earnings to retained earnings to rely on internal sources and uses relatively low debt. So, the higher the profitability, the lower the capital structure. Companies with high profitability will be able to finance their company activities without using external funds (Iskamto, Ghazali, & Afthanorhan, 2020).

Companies whose asset structure has a more excellent ratio of long-term fixed assets will use more long-term debt because existing fixed assets can be used as collateral for debt (Brigham, 2013). The greater the amount of asset structure owned by the company will cause an increase in the debt ratio or financing activities using the debt itself. The factor that causes this phenomenon is the guarantee factor. When the amount of the company's asset structure is large, it can be ascertained that the number of assets it owns is also large. Asset structure affects the sources of financing. At the point when an organization has a bigger extent of unmistakable resources, its assets' valuation becomes more comfortable, so information asymmetry is lower. Thus the asset structure can be used to determine how much long-term debt can be taken, and this will also affect the determination of the amount of the capital structure.

A company that has a high level of sales increasingly requires costs or funds so that the company can continue to operate. High sales growth will be one of the company's considerations in determining the amount of debt to be used. The higher the sales, the higher the company's profit; the profits will be additional capital for the company in developing, so that the opportunity to use debt will be even more excellent.

The size of an organization will influence the capital construction. The bigger the size of an organization, the more prominent the inclination to utilize outside capital since enormous organizations need a lot of assets to help their activities. One choice to satisfy it is outer capital if their capital isn't adequate. Following the pecking order theory, company growth opportunities affect the capital structure (Chen & Chen, 2011) and companies that proliferate require large capital and have more borrowing opportunities (Çekrezi, 2013).

Companies that distribute large amounts of dividends require additional funds through the level of debt so that the dividend policy affects the level of debt in the same direction. High dividend likewise imply that organizations will utilize more obligation levels to fund their ventures to keep up the ideal capital design. Assume an organization that conveys low dividend to investors will flag that the organization has low benefits. Hence the organization looks for outer assets from outside parties as obligation to address their issues so the organization's capital design turns out to be high.

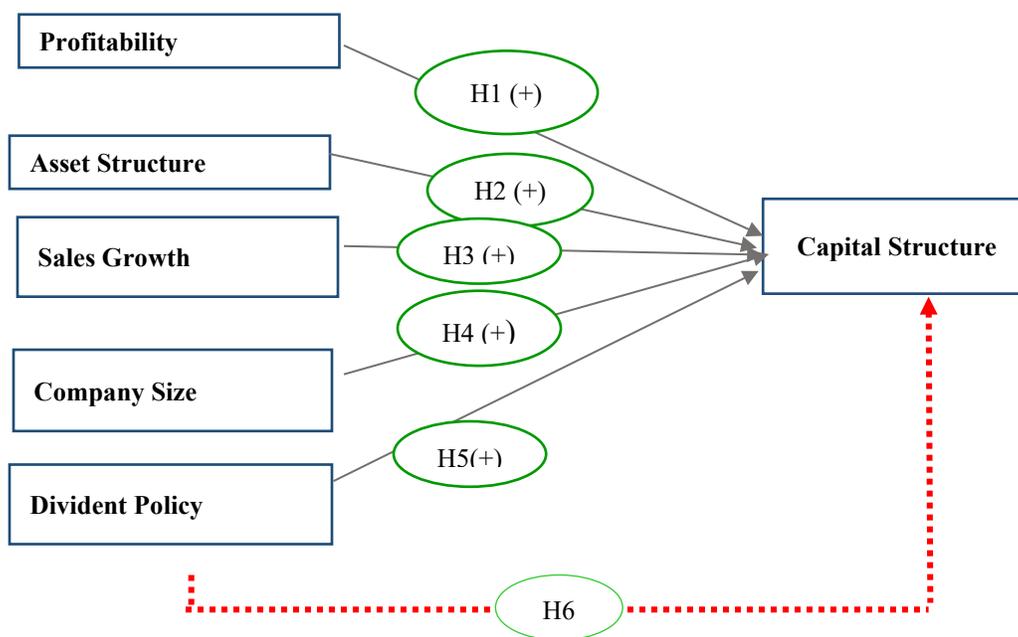


Figure 1. Conceptual Framework

### 3. Methods

This examination has five free factors, in particular, Profitability, Asset Structure, Sales Growth, Company Size, and Divident Policy. Profitability is measured using ROA. Asset structure is a variable that reflects how much-fixed assets dominate the composition of assets owned by the company. Asset structure is obtained from fixed assets divided by total assets. Growth in sales is an essential indicator of market acceptance of the company's products and services, where the revenue generated from sales can be used to measure the rate of sales growth. Company size can be deciphered as a proportion of the organization's size seen from the amount of equity value, sales value, or the results of the total value of assets possessed by the company. Company size using Log Natural of assets total. Divident policy using the dividend payout ratio (DPR). The dependent variable in this examination is the capital structure. The formula of capital structure is Debt To Equity Ratio (DER).

This present investigation's populace is producing organizations recorded on the Indonesian Exchange (IDX) period 2015 – 2019, which adds up to 148 organizations. The examining method in this examination is purposiv sampling. Manufacturing companies that have not to deliver dividends during the 2015 - 2019 period are 84 companies. Manufacturing companies that don't distribute complete financial reports during the 2015-2019 period use the rupiah's unit value in their financial statements and provide all the required data regarding research variables (34 companies). Total companies that meet the criteria are 30 companies. The research length is Five years, so the total sample during the study period is 150 companies.

### 4. Data Collection

The information utilized in this investigation was gotten from the audited financial statement of all manufacturing company posting on the Stock Exchange during the time frame 2015 - 2019 acquired through [www.IDX.co.id](http://www.IDX.co.id). Information assortment methods shrouded in this exploration are through the investigation documentation.

## 5. Results and Discussion

### 5.1 Results

The results of descriptive statistics state that Capital Structure (DER) has the highest value (max) of 6.34%, and the lowest value (min) of 0.11% with a standard deviation of 0.8685% and an average value (mean) of 0.8218%. Profitability (ROA) has the highest value (max) of 0.92%, and the lowest value (min) of 0.0008% with a standard deviation of 0.1333% and has an average value (mean) of 0.1344%. Assets structure (AS) has the highest value (max) of 0.98%, and the lowest value (min) of 0.0592% with a standard deviation of 0.1927% and has an average value (mean) of 0.3732%. Sales Growth (SG) has the highest value of 0.48%, and the lowest value of -0.2990% with a standard deviation of 0.1136% and has an average value (mean) of 0.0730%. Company Size (Size) has the highest value of 33.47% and the lowest value of 25.61%, with a standard deviation of 1.7481% and a mean value of 29.3209%. Dividend Payout Ratio (DPR) has the highest value of 5.26%, and the lowest value of 0.0072% with a standard deviation of 0.5481% and has an average value (mean) of 0.5597%.

Table 1. Uji Kolmogorov – Smirnov

	Unstandardized Residual
Kolmogorov-Smirnov Z	.664
Asymp. Sig. (2-tailed)	.200

a. Test distribution is Normal  
b. Calculated from data.

The information ordinarieness test in this investigation utilized the One-Sample Kolmogorov-Smirnov statistical analysis for each variable of the Asymp. Sig. (2-tailed) > 0.05 means that it is not significant, so the data is normally distributed. The multicollinearity test expects to test whether the relapse model discovers any connection between's the autonomous factors. Tolerance values for all variables are 0.986, 0.966, 0.913, 0.954, and 0.923. In this study, the chosen statistical test was the Glejser test, the reason for settling on choices on the heteroscedasticity test through the Glejser test, if sig. 2-tailed >  $\alpha = 0.05$ , so there is no heteroscedasticity. The Glejser test results show that all variables' probability has a significant level of 0.126, 0.402, 0.879, 0.998, and 0.714. It is greater than 0.05, which means that all variables do not contain heteroscedasticity. The comparison of the calculated Durbin - Watson value with the Durbin - Watson table value is  $1.8024 < 2.366 < (4 - 1.8024)$ , so the regression model in this study does not occur autocorrelation.

Table 2. F Model Test Results

Model		F	Sig.
1	Regression	9.912	.000 <sup>b</sup>
	Residual		
	Total		

Based on Table 2, we can conclude that the F-count value is 9,912 with the F-table value known in this study of 2.43. The comparison of the value of F-count is  $9,912 > F\text{-table}$ , which is 2.43 with a significance value of 0.000a where the significance level is below 5% ( $\alpha = 0.05$ .), It may be presumed that Profitability, Asset Structure, Sales Growth, Company Size, and Dividend Policy simultaneously or at the same time significantly affect Capital Structure.

Table 3. Determination Coefficient Test

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.561 <sup>a</sup>	.315	.283	.20499

a. Predictors: (Constant), DPR, SIZE, ROA, SA, SG

b. Dependent Variable: DER

The amount of the adjusted R Square coefficient of determination is 0.283. This figure implies that the variable Profitability, Asset Structure, Sales Growth, Company Size, and Dividend Policy can explain the capital structure variable by 28.3%. In comparison, other factors explain the remaining 71.7% outside of the research.

Table 4. t – Statistic

Model		T	Sig.
1	(Constant)	-1.596	.113
	ROA	4.265	.000
	AS	1.983	.050
	SG	1.531	.129
	SIZE	3.973	.000
	DPR	2.627	.010

*a. Predictors: (Constant), DPR, SIZE, ROA, SA, SG*

*b. Dependent Variable: DER*

In this study, the t-table value is 1.65543. In view of table 4, it tends to be seen that the partial test results are as follows. The statistical t-test on the Return on Assets (ROA) variable has at the t-count value of 4.265 > t-table 1.65543 and a significance value of 0.000 < 0.05; it very well may be inferred that ROA has a critical constructive outcome on Capital Structure (Debt to Equity Ratio/DER). The t-test statistic at variable Assets Structure (AS) has a value of t-count 1,983 > t-table 1.65543 and the value of the 0.05 = 0.05. We can conclude that AS has a significant positive impact on Capital Structure. The t-test statistic at variable SG has a value of t-count 1,531 < t-table 1.65543 and the significant value of 0.129 > 0.05; it very well may be reasoned that the SG does not significantly influence the Capital Structure. The statistical t-test on the SIZE has a count value of 3.97 3 > t-table 1.65543 and a significance value of 0.000 < 0.05, it very well may be reasoned that SIZE has a significant positive effect on Capital Structure. The statistical t-test on the DPR has a count value of 2.627 > t-table 1.65543 and a significance value of 0.01 < 0.05. it very well may be reasoned that DPR has a significant positive effect on Capital Structure.

## 5.2 Discussion

The hypothesis testing shows that Return on Assets / ROA (Profitability) has a significant positive impact with Capital Structure (Debt To Equity Ratio / DER). When the company earns a large profit, the company will likely distribute more profit to shareholders. By paying dividends, it is hoped that the company's performance will be better in investors' eyes. This dividend dissemination can decrease the extent of the organization's held income that will be utilized for speculation financing later on. Companies have to find other sources of funding to finance corporate investment. Companies will use more of their long-term debt, thereby increasing the value of their capital structure.

The test outcomes show that the Assets Structure (AS) fundamentally influences the capital design. The seriously remarkable the resource design of an organization, the more prominent the organization's obligation. This is because companies with a large composition of fixed assets have easy access to obtaining loans, and their fixed assets can be used as collateral for their debts.

The test outcomes show that sales growth doesn't influence capital structure. The high rate of sales growth will affect the company's profits to consider company management in determining the capital structure. Companies that have large sales will tend to use debt to increase sales production because of the high demand from consumers. A company with a high asset growth rate will operate at a higher level, thus requiring additional costs. The discrepancy

in this study results is the company's condition, which allows experiencing an increase in sales. However, the company can still reduce costs so that the company does not depend on the company's costs on debt.

The test results show that company size affects the capital structure. The larger the company's size tends to use external capital, the company will also need considerable funds to support its operations. An alternative is to fulfill it through external capital if the capital itself is insufficient because the funds are even more significant. The funds' expenditure is getting bigger too, either from debt or equity policies in maintaining the company. It continues to operate without any obstacles that make the company go bankrupt. A company that tends to use substantial loan amounts can make a large proportion of debt in the capital structure. So it can influence investors to invest in the company because the company has a lot of debt, which can make substantial losses.

The test outcomes show that the dividend policy influences the capital structure. Assume an organization that circulates low profits to investors will flag the market that the organization has low benefits. Consequently the organization looks for outer assets from outside parties as obligation to address their issues so the organization's capital design turns out to be high. The statement put forward by (Chen & Chen, 2011) in the pecking order theory, organizations focus on inside assets to address their issues if the organization's interior assets are not adequate, the organization is searching for outside reserves.

## 6. Conclusion

Profitability, asset structure, firm size, and dividend policy positively and significantly affect capital structure. Sales growth has no critical impact on capital construction. The outcome shows that 71.7% is clarified by different factors outside of the exploration, for future research can add other research variables.

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