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The Effect of Profitability, Free Cash Flow, and Company Size on Debt Policy for Construction Companies

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Abstract

The purpose of this study was to determine the effect of profitability, free cash flow, and company size on debt policy in building construction companies listed on the Indonesia Stock Exchange in 2017-2021. There are 55 data selected by the sample through purposive sampling method. The research method is using multiple regression analysis for hypothesis testing. The results partially show that profitability has a negative effect on debt policy, free cash flow has no effect on debt policy, while firm size has a positive effect on debt policy. Simultaneous research results where profitability, free cash flow, and firm size affect debt policy with a coefficient of determination of 0.560 which means that 56% of debt policy can be explained by independent variables (profitability, free cash flow, and firm size) while the remaining 44% is explained by another variable.

Keywords
profitability; free cash flow; firm size; debt policy

I. Introduction

Covid 19 pandemic caused all efforts not to be as maximal as expected (Sihombing and Nasib, 2020). The outbreak of this virus has an impact of a nation and Globally (Ningrum *et al*, 2020). The presence of Covid-19 as a pandemic certainly has an economic, social and psychological impact on society (Saleh and Mujahiddin, 2020).

The increasing number of Covid-19 cases has made the business world financially difficult. Some companies experience the impact of the results of their business activities. One of the sectors experiencing the impact is the building construction sector. Several companies suffered losses, including PT Acset Indonusa Tbk had to bear a loss of Rp. 1.1 trillion in 2019 and Rp. 1.3 trillion in 2020. Another construction company that also experienced shrinkage from toll operations in the midst of the pandemic was PT Waskita Karya (Persero) Tbk. thus requiring additional capital for the purchase of toll roads. As of September 2021, PT Waskita Karya (Persero) decided to take funding from a third party. The company's debt is recorded at Rp. 90 trillion rupiah (www.cnnindonesia.com, 2021).

According to Rohmah *et al*., (2018) in making debt policies, companies need to pay attention to risk. The greater the funding taken through debt, the higher the interest expense that needs to be borne by the company. This can affect the sustainability of the company. Companies that cannot manage their finances well can be at risk of bankruptcy.

Companies need to pay attention to several factors to minimize the risks that may occur when carrying out debt policies to third parties. Several reseacrh have shown mixed results regarding the factors that influence debt policy. Profitability is the company's ability to manage its assets for profit. In this study profitability is formulated by the ratio of Return on Assets (ROA). The results of research conducted by Asiyah & Khuzaini (2019), Sari & Setiawan (2021), and Endri *et al*., (2019) states that profitability has a positive effect on debt policy. Research conducted Abubakar *et al*., (2020), Wibowo & Yusy (2021), and Yolanda *et al*., (2020) not in line with this, their results state that profitability has a negative effect on debt policy. While the research conducted Afiezan *et al.*, (2020), Paryanti & Mahardhika (2020), and Mukhibad *et al.*, (2020) stated that profitability has no effect on debt policy.

Healthy free cash flow can be seen from the size of the free cash flow that can be used for funding. Results of research conducted Fadilla & Aryani (2020) and Wibowo & Yusy (2021) states that cash flow has a positive effect on debt policy. Different from research Yolanda *et al.*, (2020) free cash flow has a negative effect on debt policy. As for research Afiezan *et al.*, (2020), Zurriah & Sembiring (2018), Paryanti & Arya (2020), and Maryani & Artati (2019) states that free cash flow has no effect on debt policy.

Company size is the size of the company which can be classified according to several ways. Company size can be categorized into large companies, medium companies, and small companies (Triyono *et al.,* 2019). The results of research conducted by Asiyah & Khuzaini (2019), Sunardi *et al.*, (2020), and Yolanda *et al.*, (2020) state that cash flow has a positive effect on debt policy. While research according to Afiezan *et al.*, (2020) states that company size has no effect on debt policy.

Based on the description and the existence of the research gap above, it encourages researchers to conduct further research with the hope that this research can be useful for management to conduct an analysis first before making a debt policy decision in meeting company funding. This can be done by using variables in the study. Thus the purpose of this study is to determine the effect of profitability, free cash flow, and firm size on debt policy.

II. Review of Literature

2.1 Pecking Order Theory

According to Myers (1984) pecking order theory is a theory that explains that if a company has high profitability, its debt will be low. This is because the company has many advantages so that internal funding is sufficient to meet the company's investment needs. The company has a hierarchy in the use of funds. When management wants to fund a new project, they will use retained earnings first. If internal funding is insufficient, then managers need external funding. In the pecking order theory, the company will use internal funding if funds are available and choose external funding if internal funds are not available. If external funding is needed the company will first issue the safest securities i.e. the company will start with debt, then mixed securities such as convertible bonds then equity as a last step (Zurriah & Sembiring, 2018).

The pecking order theory explains that the manager has the first decision in choosing funding. Managers will choose funding from retained earnings first, then debt, and then stock issuance. This theory is based on the existence of asymmetric information, namely the management has more information about the company than investors. This asymmetric information will influence the choice in determining funding, either through internally or from adding new debt or by issuing new shares (Rohmah *et al*., 2018).

2.2 Profitability

Profitability can be used to evaluate company profits by looking at sales, capital, and company assets. A good company is a company that can manage its assets and capital into profits (Zutter & Smart, 2020). Measurement of the level of profitability of the company can use the profitability ratio. Profitability ratio is the ratio used to measure the company's ability to generate profits from normal business activities. Profits owned by the company can be used for company operations and can also be used to meet the company's debt obligations. Companies with high profitability, the level of debt will be low, this is because the company has abundant internal sources of funds. Vice versa, low profitability indicates the company is not able to generate maximum profit from the assets it has. Thus, it can cause the company to not have sufficient funds for company operations. The company needs to make a decision to increase the company's funding. Funding can be obtained from third parties, namely by debt. So it is very important for companies to analyze profitability to determine debt policy (Sari & Kurnia, 2020)

2.3 Free Cash Flow

Free cash flow is the company's free cash that can be distributed to shareholders or creditors that is not needed for working capital or investment (Rohmah *et al.,* 2018). Cash flows consist of operating cash flows, investment cash flows, and financing cash flows. Operating cash flows are cash flows that are directly related to the sale and production of a company's goods, investment cash flows are cash flows related to the purchase and sale of the company's fixed assets and equity investments in other companies, and financing cash flows are cash flows generated from debt and equity financing transactions (Zutter & Smart, 2020:195).

2.4 Firm Size

Company size is the size of the company which can be classified in several ways. The size of the company can be categorized into large companies, medium companies, and small companies. The size of a company can be seen from how big the total assets owned. The greater the total assets, the greater the size of the company (Triyono *et al.,* 2019). Thus, the larger the size of the company, the greater the opportunity for the company to obtain debt loans for company funding. This shows that the size of the company has an effect on the company's debt policy.

2.5 Debt Policy

Debt policy is the company's policy to obtain additional funds that do not come from shareholders, but from lenders. Loans made by the company with a certain maturity in accordance with the agreement. The greater the debt, the greater the risk of the company not being able to fulfill its obligations in paying debts (Zutter & Smart, 2020:145). High debt can pose a risk that the company cannot pay its debts, thus making the company bankrupt. To prevent corporate bankruptcy, it is necessary to have good control that the company needs to do in order to minimize the risks that may occur (Maryani & Artati, 2019).

2.6 Conceptual Framework

The research model that links the independent variable to the dependent variable is as follows:

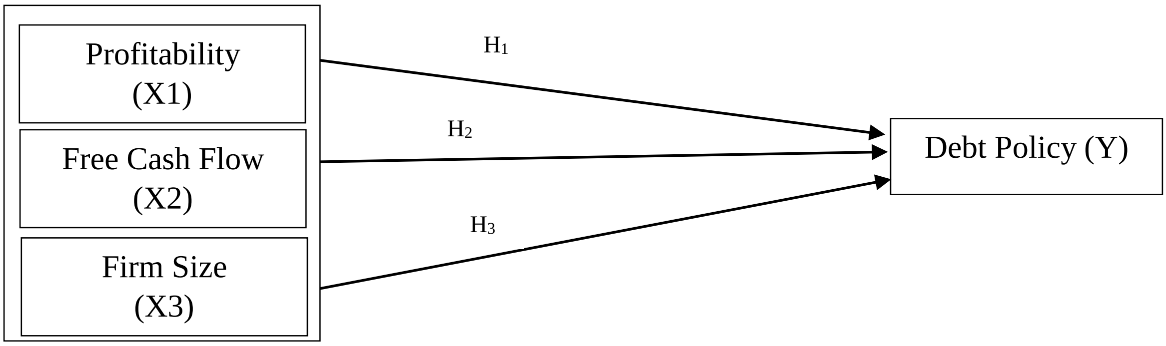

Figure 1. *Conceptual Framework*

2.7 Hypothesis Development

Profitability can be seen from how well the company manages its assets to make a profit. Profitability is widely used by various parties, both company management and creditors because of the importance of the market for them (Zutter & Smart, 2020:149). Profitability and significant influence on debt policy is a direct factor that can be used as a consideration for the management in carrying out debt policies and creditors in providing debt to the company. Companies with a high level of profitability have the ability to repay their debts, so they will be higher in utilizing debt. The existence of trust for creditors in providing loans because the high profitability value illustrates the company's ability to generate profits, the company is able to repay the debts made and becomes a form of trust for creditors in providing debt loans (Asiyah & Khuzaini, 2019). The results of research conducted by Asiyah & Khuzaini (2019), Sari & Kurnia (2020), and Endri *et al*., (2019) stated that profitability had a positive effect on debt policy.

H_1: Profitability has a positive effect on debt policy

Free cash flow is the amount of cash flow available to investors and creditors after the company is able to meet all the company's operational needs and pay for investments (Zutter & Smart, 2020:200). Free cash flow reflects the company's flexibility in making additional investments, paying off debt, and buying treasury shares or adding liquidity. High free cash flow can be used as an indicator that the company can pay its debt obligations well. This can be used as an opportunity for management to take a debt policy in increasing company funding (Maryani & Artanti, 2019). The results of research conducted by Fadilla & Aryani (2020) dan Wibowo & Yusy (2021) state that cash flow has a positive effect on debt policy.

H_2: Free Cash Flow has a positive effect on debt policy

Company size describes the size of the company through the number of assets owned by the company. Large companies are easier to get funds from external parties because they tend to have greater asset guarantees compared to small companies (Asiyah & Khuzaini, 2019). Thus the size of the company can help make it easier for companies to get funds by improving company performance.

H_3: Firm size has a positive effect on debt policy

III. Research Method

The population in this study is the building construction sub-sector companies listed on the IDX during 2017 – 2021. In this study, the type of data used is secondary data, namely in the form of annual report data taken from the related company website and the idx.co.id website. The sampling technique in this study used a purposive sampling technique with the following criteria:

Table 1. Sample Selection Criteria

No	Criteria	Number of Companies
1	Building construction company listed on the Indonesia Stock Exchange during 2017-2021	14
2	Building construction companies that do not publish December 31 financial statements during 2017-2021	(3)
3	Building construction company that publishes financial statements in foreign currency during 2017-2021	(0)
	Number of final samples that meet the criteria	11

The sample companies used in the study were 11 companies with a total of 55 research data.

3.1 Variables and Variables Operational Definitions

The operational definition of the variable is the interpretation of the selected variable. The variables used in this study consisted of 3 independent variables, namely Profitability (X1), Free Cash Flow (X2) while the dependent variable used was Debt Policy (Y).

Profitability in this study uses the ratio of return on assets (ROA). Return on assets is a measurement of the company's ability to generate profits that can be seen as a whole by the sum of all assets owned by the company. Return on assets is used to see the level of efficiency of the company's operations as a whole. The higher the Return on Assets, the more effective the company is in utilizing its assets to generate profits (Simorangkir, 2019). So that the return on assets variable is calculated using the formula:

$$\text{ROA} = \frac{\textit{Net Income}}{\textit{Total Aset}}$$

Free cash flow is the company's free cash that can be distributed to shareholders or creditors that is not needed for working capital or investment Rohmah *et al.*, (2018). Operating cash flow can be calculated by the formula:

$$\text{FCF} = \text{AKO} - \text{PM} - \text{NWC}$$

Where:

AKO = Operating Cash Flow
PM = Net Capital Expenditure
NWC = Company net working capital

The size of the company can be seen from how big the total assets owned. The greater the total assets, the greater the size of the company (Triyono *et al.*, 2019). Company size can be calculated using the formula:

$$\text{Firm Size} = \text{Log (Total Asset)}$$

3.2 Classical Assumption Test

Classical assumption test is a test conducted to measure whether the research is free from multicollinearity, heteroscedasticity, and autocorrelation. The classical assumption test must be met and the data are normally distributed without any multicollinearity, heteroscedasticity, and autocorrelation.

3.3 Research Model

This research model uses multiple regression method which can be formulated as follows:

$$Debt_{it} = \alpha + \beta 1ROA_{it} + \beta 3FCF_{it} + \beta 4SIZE_{it} + \varepsilon$$

Where:

α = Constanta
β1- β4 = Regression Coefficient
Debt = Debt Policy
ROA = Profitability
FCF = Free Cash Flow
Size = Firm Size
ε = Error

IV. Results and Discussion

4.1 Descriptive Statistics

The total data studied were 55 data, where there were 11 companies during the 5 year research period. The following data can be seen in the table with an overview of the minimum, maximum, mean. And the standard deviation of each variable.

Table 2. Descriptive Statistics

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Profitability	55	-,4386	,1402	,000030	,1009188
Free Cash Flow	55	-14,28	21,60	-2,05	5,06
Firm Size	55	12,0049	14,0885	12,874049	,6334695
Debt Policy	55	,0689	,9726	,576420	,1766857
Valid N	55				

Profitability has an average value of 0.00003 with a minimum value of -0.4386 and a maximum value of 0.1402. The higher the profitability value, the company is able to manage its assets to earn a profit. On the other hand, a company that has a low profitability indicates that the company is not able to use its assets to make a profit.

Free cash flow has an average value of -2.05 with a minimum value of Rp. -14,287,932,962,000 and a maximum value of Rp. 21,605,560,860,080. Companies that have high free cash flow indicate the company is able to manage the company's operational funding well so that it still has free cash that can be used for investment.

Company size has an average value of 12.8740 with a minimum value of 12.0049 and a maximum value of 14.0885. The company with the highest value can be said to be a large company because it can be seen from the number of total assets owned by the company. Meanwhile, the company that has the lowest value can be said to be a small company.

Debt policy has an average value of 0.5764 with a minimum value of 0.0689 and a maximum value of 0.9726. Companies with high debt policies indicate that the company uses funding from third parties, namely creditors. Meanwhile, a company that has a low debt policy indicates that the company prioritizes retained earnings over debt to third parties.

4.2 Hypothesis Test

The research results show the adjusted R square value of 0.560 = 56%. This means that statistically the magnitude of the dependent variable (debt policy) can be explained by the independent variables (profitability, free cash flow, and firm size) while the remaining 44% is explained by other variables not included in the regression model in this study.

The results of the F test carried out can be seen from the significant value of 0.000 which is smaller than 0.05, which means that simultaneously the three variables (profitability, free cash flow, and firm size) have a significant effect on debt policy.

Based on the results of the t-test table, it can be explained as follows:

a. The results show that profitability has a significant level of 0.000 which is smaller than 0.05 but the t value is -4.020, then ha1 is rejected, which means that profitability has a negative effect on debt policy. The results of previous research by Abubakar *et al.*, (2020), Yolanda *et al.*, (2020), dan Wibowo & Yusy (2021) also show that profitability has a negative effect on debt policy. This is because companies that have high profitability will not necessarily use their assets to guarantee debt. In line with the pecking order theory, managers prefer the first hierarchy in funding, namely retained earnings to reduce risk when in debt. According to Simorangkir (2019) the better the profitability of the company, the more effective the company is in utilizing its assets. Thus the company will tend to get a profit from the assets owned so that the company will choose the first hierarchy in its funding, namely retained earnings rather than a riskier debt policy.

b. he results showed that free cash flow had a significant level of 0.422, greater than 0.05, then ha2 was rejected, which means that free cash flow had no effect on debt policy. The results of this study are in line with research conducted by Afiezan *et al.*, (2020) which states that free cash flow has no effect on debt policy. This means that companies that have good cash flow prioritize free cash flow funds for investment and company operations, not to increase debt.

c. The results show that the size of the company has a significant level of 0.000 which is smaller than 0.05, then ha3 is accepted, which means that the size of the company has a positive effect on debt policy. These results are in line with research conducted by Sunardi & Kadim (2018), Yolanda *et al.*, (2020) and Asiyah & Khuzaini (2019) that firm size has a positive effect on debt policy. This proves that company size can be used as a benchmark for companies in determining debt policies to increase funding. The bigger the company, the more funds the company needs to improve company performance. Companies can use their assets to be used as collateral when making loans to third parties.

Table 3. Hypothesis Test

Variabel	Standsrdized Coeffients Beta	t	Sig
Constanta		-5,988	,000
Profitability	-,374	-4,020	,000
Free Cash Flow	,081	,810	,422
Firm Size	,749	7,593	,000
Adjusted R Square	,560		
F Test	23,902		
Sig	,000		

V. Conclusion

The conclusions of this research are:

1. Profitability and company size have a negative effect on debt policy in building construction companies listed on the IDX in 2017-2021. Thus the company will tend to use the profits from the assets they have to get profits that can be used for company funding. So the company will choose the first hierarchy in its funding, namely retained earnings rather than a riskier debt policy.
2. Free cash flow has no effect on debt policy in building construction companies listed on the Indonesia Stock Exchange in 2017-2021. This means that companies that have good cash flow prioritize free cash flow funds for investment and company operations, not to increase debt.
3. Company size has a positive effect on debt policy in building construction companies listed on the Indonesia Stock Exchange in 2017-2021. This proves that company size can be used as a benchmark for companies in determining debt policies to increase funding. The bigger the company, the more funds the company needs to improve company performance.
4. Simultaneously, the variables of profitability, free cash flow, and firm size have an influence on debt policy.

The limitations of this research are:

1. Research conducted for five years, namely 2018-2021
2. Research uses three independent variables
3. Research only uses the building construction sub-sector
4. The results of the study only one variable that has a positive influence on debt policy

The implications of this research are:

1. Practical Implications
   The results of this study are used as input for creditors to analyze the company before the loan is made. Creditors can find out the risks that may occur if the company makes a loan. In addition, it can also be used by potential investors in investing in a company by looking at how big the company's debt level is and also its obligations to pay debts.
2. Theoretical Implications
   Companies can use this research to determine the policies that need to be taken by the company in order to achieve better company performance.

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