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Firm's Growth and Cash Flow Sensitivity: The Role of Financial Constraints

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ABSTRACT

This research analyzes the role of cash flow and company growth in relation to company funding constraints in non-financial sector companies listed on the Indonesia Stock Exchange (IDX) from 2008 to 2021. The study conducted hypothesis testing to examine the influence of cash flow, company size, company growth, return on assets, and leverage. A total of 528 non-financial sector companies were included in the research. The findings reveal that there is an influence of the dependent variable, which is company growth, on the independent variables, namely Cash Flow, Return on Assets (ROA), Firm Size, and Leverage. However, one independent variable, Tobin's Q, does not have a significant impact on company growth.

Keywords: Firm Growth; Cash flow; financial constraints

INTRODUCTION

This research examines the role of cash flow and company growth in relation to company funding constraints in non-financial sector companies listed on the Indonesia Stock Exchange from 2008 to 2021. In this era of globalization, the capital market has become a key economic instrument with significant and rapid development. Almost all developing countries have high expectations for the sustainability of the capital market, as it plays a crucial role in strengthening a country's economic resilience.

Investment has become a necessity for a country to develop its economy in line with societal development trends. Considering the rapid population growth, the country must provide positive opportunities for Indonesian society to invest, with the investments channeled into productive sectors.

Investment is a factor that can influence a company's value. Optimal investment decisions lead to maximum performance (Chen et al., 2011). The larger the company's investments, the greater the performance. However, increasing investments require substantial funding, leading companies to consider whether to source capital internally or externally. The company must also balance the proportion of debt and equity in its capital structure, as it affects the basis for determining the expected required return for investors.

Investment decisions are not easy, as they involve many considerations beyond financial information alone, and they do not guarantee that the investments made are correct (David & Hopenhayn, 2016). Profitable investments can be identified based on factors such as high return rates, quick returns, low operational costs, and minimal risk.

Larger, more liquid companies adopt comparatively lower debt ratios. Nevertheless, most debt financing is utilized by less liquid companies. Recent studies have demonstrated a significant relationship between equity liquidity, financial performance, and investment

decisions, indicating that stock liquidity is crucial in achieving higher and sustainable economic growth.

Funding decisions entail determining the form and proportion of financing required by a company. Many companies face challenges in the funding process, making it a crucial factor for the company's sustainability (Park, 2021). Funding helps reveal various aspects, such as the sources of funds and their allocation. Companies obtain funds from internal and external sources. Internal sources typically come from retained earnings, while external sources come from debt issuance.

Funding is critical for companies, and management must be cautious in handling loans. Mismanagement may lead to future problems for the company, especially when the debt-to-capital ratio is high, leading to a larger portion of profits being used to service interest and dividends to investors. Additionally, funding constraints can affect a company's ability to execute investments, which are essential for its growth and development (Campello et al., 2010; Hadlock & Pierce, 2010). Investments involve acquiring financial assets with the expectation of generating significant future returns.

Due to funding limitations, companies may not expect higher profits or increased company value. Companies with well-established internal and external funding are more likely to experience good growth opportunities. Asymmetric information problems may cause companies to incur higher costs when using external funding compared to debt financing. The pecking order theory suggests that companies prefer to use retained earnings, then debt, and finally equity. When faced with financial constraints, companies tend to opt for internal funds. However, research by Almeida et al. (2011) indicates that financially unconstrained companies are more sensitive to cash flow from funding sources. Given the differing findings from previous studies, this research aims to investigate the situation in Indonesia based on the outcomes of both studies.

According to Fazzari et al. (1988), when a company faces financial constraints in external funding, it tends to be more sensitive to using its internal funding sources. This contrasts with the study conducted by Almeida et al. (2011), which suggests that financially unconstrained companies are usually more sensitive to cash flow from the company's funding sources.

Research by (Arellano et al., 2018; Ševčík, 2015) reveals that companies with funding limitations invest in their growth using internal funds, but the sensitivity of cash flow to growth decreases when access to external financing increases. As financial constraints lessen, companies gradually reduce internal financing and start investing in growth using debt and equity financing as their primary sources.

Donati (2016) explores the impact of capital constraints on company growth in Italy. The results indicate that small-sized companies in the manufacturing sector have a stronger growth response to internal funds compared to medium-sized companies. Specifically, he highlights that the growth responsiveness to cash flow is higher for small businesses operating in the service industry.

Hypothesis 1: Companies with funding constraints have higher sensitivity to cash flow and company growth.

METHODOLOGY

Data

In this study, the author utilized documentary data, which includes company financial reports and other information obtained from each company listed on the Indonesia Stock

Exchange. The sample used in this research consists of companies listed on the Indonesia Stock Exchange from 2006 to 2021, selected based on the following criteria:

1. Companies listed on the Indonesia Stock Exchange during the period 2006 to 2021.
2. Companies with complete data needed to compose the variables used in the research.
3. Companies that are not in the financial sector were excluded from the study.

The data period used in the research spans from 2008 to 2021. The type of data used is panel data or unbalanced panel data. The data for this study was obtained from relevant company financial reports accessible through S&P Capital IQ.

Empirical Model

To generate optimal hypotheses, the researcher employs panel data model analysis, to examine critical factors in growth-cash flow sensitivity. The author will investigate whether there is an influence of funding constraints on the relationship between cash flow and company growth. Subsequently, the author will employ the following panel data model using the following model:

$$Growth_{i,t} = \alpha + \beta_1 Size_{i,t} + \beta_2 Size^2{}_{i,t} + \beta_3 CF_{i,t} + \beta_4 TQ_{i,t} + \beta_5 ROA_{i,t} + \beta_6 LEV_{i,t} + \beta_7 (dk \times CF)_{i,t} + \varepsilon_{i,t}$$

Note:

$Growth$ = Firm's Growth

$Size$ = Ukuran Perusahaan

CF = Cash Flow

TQ = Tobin's Q

ROA = Return on Asset

LEV = Leverage

dk = dummy Financial Constraint

$\varepsilon_{i,t}$ = Error Term

Variable operationalization

Table 1 below lists and describes the variables and its operationalizations which we used in our empirical model above.

Tabel 1. Variable operationalization

	Dependent Variable	Independent Variable
$Growth$	Total Revenue minus Lag.TotalRevenue divided with	

	Lag Total Revenue	
$Size$		Ln (total assets)
CF		EBIT+Depreciation-Capex / total assets
dk		Dummy variable, where = 1 if firms have total assets less than the sample median or dividend non-payer, = 0 or else.
ROA		Operating income divided with total assets
$Leverage$		total liabilities divided with total asset
$Tobin"s\ Q$		market value to book value of total assests

RESULTS

Descriptive Statistics

In this chapter, we will discuss the results of descriptive statistics and the validity testing of the dependent and independent variables. Having credible and accurate data collected will facilitate further analysis of the regression obtained from the research model. Next, this hypothesis will be evaluated and compared with the results of the conducted research.

In this research, there are 528 companies that will be examined from the years 2008 to 2021. Looking at the descriptive data on table 2, there are 5522 samples taken for analysis. Each table has undergone winsorization at the 1% level to reduce extreme values. There are also dummy variables used to indicate specific conditions: companies with small size, measured as less than the median value, are assigned 0, while companies that distribute dividends are assigned 1.

Table 2. Descriptive Statistics

Variabel	Obs	Mean	Min	Std. Dev.	Median	Max
GROWTH	4876	0.134	-0.753	0.5026486	0.079	3.713
DIVIDEN	5519	0.494	0	0.5	0	1
SMALL	5522	0.5	0	0.5	0.5	1
SIZE	5522	28.319	24.417	1.7	28.302	32.233
CF	5522	0.062	-0.24	0.103	0.05	0.413
TOBINS Q	5522	1.27	0.096	1.729	0.732	12.143
ROA	5522	0.062	-0.239	0.097	0.055	0.438
LEVERAGE	5522	0.134	0	0.161	0.076	0.762

Source: Processed Data

Tobin's Q is a measure to assess the Growth Opportunity of a company. It is calculated by adding the Market Value of Equity to Long Term Debt and then dividing it by Total Assets. The average value shows that companies achieving Growth Opportunity have an average value of 1.27. Leverage measures the level of debt a company holds and is calculated using the Long-

Term Debt to Total Asset ratio. The leverage variable has a value of 0.134, indicating that 13.4% of observations use leverage to finance their operational costs.

The variable "small" categorizes companies with a value less than the total median of the "size" variable. In the above results, the "size" variable has an average value of 0.5, indicating that only 50% of total observations are categorized as companies with small size.

The variable "Dividend" categorizes companies with a value less than 0, meaning companies that do not distribute dividends. The average value of 0.494 for this variable is almost like the "small" variable, which means 49.4% of companies are categorized as having financial constraints out of the total observations.

ROA (Return on Assets) measures the profitability and efficiency of managing the company's assets to generate company income. ROA is calculated as total operating income divided by total assets. The table above shows that ROA has an average value of 0.062, indicating that 6.2% of the total 5522 observed companies are profitable. "Size" is a measure to determine the average value of a company's size. The variable "Size" has a natural logarithm with an average value of 28.319. The "cashflow" variable is cash from operations divided by total assets, and it has an average value of 0.062, indicating that 6.2% of total observations use cash flow for company growth. The dependent variable "Salesgrowth" has an average value of 0.134, showing that only 13.4% of companies from the total observations achieve their growth opportunity.

Empirical Results

In table 3, we present the regression result of our empirical model described in the previous chapter. The method that is used is the fixed effect panel data model with Driscoll kraay robust standard errors.

Table 3. Regression Results

	Dependent Variable: Growth	
	Dividen	Small
Size	.893**	.855**
	(.313)	(.304)
$Size^2$	-.016**	-.015**
	(.006)	(.006)
Cash Flow	-.442***	-.394**
	(.116)	(.165)
Tobin's Q	-.012	-.014
	(.01)	(.011)
ROA	1.9***	1.881***
	(.247)	(.244)
Leverage	.293*	.295**
	(.137)	(.135)
CF*Div	.303**	
	(.113)	
CF*Small		.2*
		(.108)

_Cons	-12.52**	-12.024**
	(4.277)	(4.168)
Observations	4874	4876
Prob > F	0.0000	0.0000
R^2	0.0637	0.0633

***signifikan pada 1%, **signifikan pada 5%, *signifikan pada 10%. Each variable has undergone winsorization at a significance level of 1%. Standard errors are reported in parentheses.

DISCUSSION

In Table 3, the regression results for two different financial constraints categories (dividend payer and firm size) are presented after conducting tests on classical assumptions. The first column displays the regression results for Model 1, where the independent variable is Cashflow. From the above regression results, it can be observed that the coefficient for the Cashflow variable is negative and statistically significant at 5% for column (2), indicating that an increase in cashflow leads to reduced company growth. Similarly, for column (1), the regression shows a negative coefficient with significance at 1%, suggesting that higher cashflow utilization results in decreased growth opportunities for the company.

The ROA variable coefficient has a positive and statistically significant value at 1% for column (2), indicating that company performance significantly influences company growth. Similarly, for column (1), the ROA variable has a positive coefficient with significance at 1%, demonstrating that company performance affects company growth positively. Both ROA variables suggest that higher company performance leads to increased company growth. This aligns with the previous study which state that companies with high ROA values are capable of generating greater profits compared to those with low ROA values. An increase in ROA, coupled with high growth, leads to increased company profits and ensures company growth rises.

The "Size" variable represents the size of companies in Indonesia, with the "Size" variable coefficient being positive and statistically significant at 5% for column (2). This indicates that the company's size enhances its growth. Similarly, for column (1), the "Size" variable has a positive coefficient with significance at 5%, supporting the conclusion that larger companies experience increased company growth.

The "Leverage" variable has a positive and statistically significant coefficient at 5% for column (2), suggesting that Leverage significantly influences company growth. For column (1), it has a positive coefficient and significance at 10%, indicating that Leverage significantly affects company growth. Both "Leverage" variables lead to the conclusion that higher leverage provides greater opportunities for company growth.

However, when looking at other dependent variables, it is evident that there are variables that do not have a significant influence on the independent variable in the research model, such

as the "Tobin's Q" variable. The "Tobin's Q" variable has a positive coefficient but is not statistically significant for the model. Hence, it can be concluded that the company's value does not significantly affect company growth.

In the first column, the regression results for the research model are presented after incorporating the interaction between Cashflow and Dividend, represented by CF*Div. The coefficient for CF*Div is positive and statistically significant at 5%, indicating that companies distributing dividends have a positive influence on company growth.

In the second column, the regression results for the research model are displayed after incorporating the interaction between Cashflow and Small, represented by CF*Small. The coefficient for CF*Small is positive and statistically significant at 10%, indicating that companies with small size and financial constraints have a positive influence on company growth.

CONCLUSION

The financing factor in a company plays a crucial role in its sustainability. The company's management must effectively manage these funding sources for the company to grow and develop. Management decisions regarding financing policies will impact the company's future growth. A good growth trajectory serves as a positive indicator of a company's development. Companies with good performance demand high-quality overall management. This research utilized 528 publicly traded companies in Indonesia, studied from 2008 to 2021. The type of data used in this study is panel data with unbalanced panel data. After conducting regressions in this model, the research yielded the following hypotheses: companies with funding constraints have sensitivities to cash flow and company growth, which can be divided into two categories. First, companies with small size show a positive and significant influence on company growth. Second, companies that distribute dividends show a positive and significant influence on company growth. Thus, it can be concluded financial constraint in deed is important to explain the relationship between firm's growth and its cash flow.

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