

## **Factors Affecting Working Capital Needs In Manufacturing Companies Listed On The Indonesia Stock Exchange 2015-2020**

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### **ABSTRACT**

*The problem in this research is how the company manages their working capital properly with understanding the determinants of working capital for the company to avoid the risk of bankruptcy. This study aimed to examine the effect of leverage, operating cash flow, profitability, sales growth, company size, sales fluctuations, the age of the company, and cash conversion cycle to the working capital requirements individually. The population in this study are all manufacturing companies listed in Indonesia Stock Exchange as many as 132 companies. The sampling method using purposive sampling and obtained 80 companies as samples in 2015-2020. The data used in this research is secondary data in the form of financial statements that are downloaded from [www.idx.co.id](http://www.idx.co.id). Data analysis technique used is multiple linear regression. The results showed that leverage, profitability, company size, and the cash conversion cycle significantly influence working capital requirements. These results indicate that the debts of the company, profitability, company size, and the cash conversion cycle, are all factors that must be considered by the company in determining the policies of proper management of working capital with under 5% significant. In connection with the pecking order theory, companies should not use too high debt if they have an advantage in the form of income, asset, and a high cash flow, which can be used to invested in working capital.*

**Keywords :** *leverage, operating cash flow, profitability, sales growth, company size, sales fluctuations, the age of the company, cash conversion cycle, working capital requirements.*

### **INTRODUCTION**

In the development of the business world, we are often faced with complex competition between companies in meeting the needs of more and more consumers. This makes companies try to create competitive strategies that are superior to their competitors. Companies that are able to create advantages will be able to survive, while companies that are not able to compete will experience setbacks and even bankruptcy. Companies no longer only focus on their goal of maximizing profits, but companies must also pay attention to the management of financial and operational needs that will affect the achievement of company profits.

Working capital management is important because it involves the liquidity and solvency of the company. An important issue in the management of working capital is determining the optimal amount of working capital (Van Horne and Wachowicz, 2012: 251). The amount of working capital in a company must be sufficient to finance the company's daily operations so that the company does not experience financial difficulties and failures due to insufficient working capital.

The lack of management ability in planning and managing the components of working capital can lead to insolvency or the company's inability to provide long-term liquidity, and

bankruptcy (Gill, 2011). Therefore, it is important for companies to try to minimize risk and improve overall performance by understanding the functions and determinants of working capital to formulate effective working capital management strategies. The purpose of this study was to determine whether leverage, operating cash flow, profitability, sales growth, company size, sales fluctuations, company age and cash conversion cycle affect working capital requirements in manufacturing companies listed on the Indonesia Stock Exchange in 2015.

## LITERATURE REVIEW

### Pecking Order Theory

Companies must determine where to get funding sources to meet short-term and long-term needs. Pecking order theory describes a hierarchy of funding sources for a company. According to Husnan (1996:324), the order of funding according to the pecking order theory is (1) the company likes internal financing (funding from the company's operating results), (2) the company tries to adjust the dividend distribution ratio with investment opportunities, and tries not to change the payment. dividends that are too large, (3) dividend payments that tend to be constant and fluctuations in profits earned cause internal funds to sometimes be excessive or reduced to invest, (4) if external financing is needed the company will choose to issue the safest securities first. begins the issuance of bonds, bonds that can be converted into own capital, finally issuing new shares.

So, it can be concluded that the Pecking order theory states that companies are more likely to choose funding that comes from the company's internal (internal financing) sourced from cash flows, retained earnings, rather than from external sources (external financing). Even if external funds are needed, the company will choose to use debt because the costs incurred for debt are cheaper than the costs of issuing shares..

### Working Capital

In carrying out daily activities, companies need a number of funds, both funds from outside the company or funds from the company's own capital. These funds are usually used for long-term company investment purposes and funds used for short-term activities. The funds used to fund the company's short-term activities are commonly referred to as working capital.

Kasmir (2010: 300), defines working capital as capital used to finance the daily operations of the company, especially those with a short period of time. Or in other words, working capital is an investment invested in current assets or short-term assets, such as cash, banks, securities, receivables, inventories, and others. Meanwhile, according to Sawir (2005:129), "working capital is the entire current assets owned by the company or can also be intended as funds that must be available to finance the company's operations every day".

Determining the size of the amount of working capital needed is an important issue, this is because if the working capital of a company is too large, it means that some of the funds are idle and could reduce the company's profitability. On the other hand, if the working capital is too small, there will be a risk that the company's production process will likely be disrupted.

### Leverage

"The leverage is used to measure to what extent the company's assets are financed with

debt, which means how much debt the company bears compared to its assets" (Kasmir, 2011:51). Leverage can be measured by the Debt to Total Asset Ratio (DAR) which shows how much the company's assets are financed by debt. leverage will be dangerous for the company, and the company must respond by making efficiency in working capital management to avoid adding more debt and issuing new shares.

H1 : Leverage has an effect on Working Capital Needs.

### **Operating Cash Flow**

Operating Cash Flow is cash flow that comes from the company's daily operations. Ross, et all (2007:32) explain that operating cash flow is earnings before interest income (earnings before interest) plus depreciation minus taxes, which determines the cash to be paid. generated from operations. If operating cash flow is very small in value or even negative in the long term, the company will have problems because the company cannot generate sufficient cash to finance operating activities. This will have an impact on working capital requirements where when the company does not have sufficient cash to meet operating activities, the company will make efficient working capital management.

H2 : Operating cash flow has an effect on Working Capital Requirements.

### **Profitability**

"Profitability is the company's ability to earn profits through all capabilities and existing sources such as sales activities, cash, number of employees, number of branches, and so on" (Harahap, 2013:304). According to Kasmir (2011: 196), "profitability describes the company's ability to seek profit and provides a measure of the level of effectiveness of a company's management". Based on the Pecking Order Theory, companies will choose retained earnings to meet their financial needs over debt and share issuance. The company will invest some of its retained earnings in current assets to meet the company's operating activities. Thus, the amount of working capital will increase.

H3 : Profitability has an effect on Working Capital Needs.

### **Sales Growth Sales**

Growth can be an indicator of a company's growth. Sales growth is an increase in the number of sales from year to year or from time to time. "Sales growth has an important role for the company because by knowing how much sales growth is, the company can predict how much profit it will get" (Megarifera, 2013). Companies with high sales growth will invest more in inventory to meet demand and carry out their operations, and this will have an impact on high working capital requirements.

H4 : Sales growth has an effect on Working Capital Needs.

### **Company Size**

Firm size is the size of a company that is characterized by the total amount of the company's assets (Abadi and Abdadi, 2012)"The greater the total assets owned by the company, the greater the size of a company and the greater the capital invested" (Megarifera, 2013). The size of a company has an impact on the company's working capital requirements.

Large companies will require greater funds to finance their operational activities. Thus, the larger the size of the company, the higher the amount of working capital.

H5 : Company size has an effect on Working Capital Needs.

### **Sales Fluctuations Sales**

Fluctuations are the instability of the company's sales level as seen from the company's sales level in recent years. Wasiuzzaman and Arumugam (2013) stated that sales fluctuations indicate operational risk. The higher the fluctuation in sales, the higher the risk faced by the company so that the company will implement more efficient working capital management. "High sales fluctuations also make it difficult for companies to predict their sales so that companies will keep inventory levels at a minimum level to avoid the opportunity for inventory to be damaged, expired, and lost" (Karina, 2012).

H6 : Sales fluctuations have an effect on Working Capital Requirements.

### **Company Age Company**

Age is calculated from the time the company was founded until the research was conducted. Companies that have been around for a long time, of course, have a lot of experience compared to companies that have just been established. Companies with a young age, will require investment in high working capital in order to maintain sales growth (Wasiuzzaman and Arumugam, 2013). Companies with longer experience will know the characteristics of consumers better so as to facilitate decision making in receivables policy (Scherr, 1989) in (Karina, 2012).

H7 : Age of the company has an effect on Working Capital Needs.

### **Cash Conversion Cycle**

definition cash conversion cycle according to Abbadi and Abdadi (2012) is the number of days needed to convert purchases from raw materials into finished goods which are then sold to get cash. The operating cycle is closely related to the inventory period, the account receivable period, and the account payable period. "The longer the cash conversion cycle, the greater the investment in current assets, and the greater the need for current asset financing. And the company will shorten the cash conversion cycle so that working capital be efficient" (Kuncoro and Rahayu, 2015).

H8 : Cash conversion cycle has an effect on Working Capital Needs..

## **METHODS**

The population in this study were all manufacturing companies listed on the Indonesia Stock Exchange in 2015-2020 as many as 132 companies. Determination of the sample used by purposive sampling technique by using several specified criteria. The number of samples in this study was 80. The analysis technique used in this research is multiple regression analysis method, which is a regression method that has more than one independent variable, this method was chosen because it can conclude directly about each independent variable that is used partially or simultaneously.

**RESULTS AND DISCUSSION**

**Multiple Linear Regression Analysis**

**Table 1. Regression Test**

Model	Unstandardized Coefficients	
	B	Std. Error
(Constant)	-.491	.508
LEV	-.773	5.415
OCF	.044	.090
PROF	.584	.255
GROWTH	-.016	.059
FLPENJ	.329	.200
SIZE	.034	.017
AGE	-.001	.002
CCC	.001	.000

Based on the table, the multiple regression model is obtained as follows:  
**WCR= -0.491 – 0.773 LEV – 0.044 OCF + 0.584 PROF – 0.016 GROWTH + 0.034 SIZE + 0.329 FLPEN – 0.001 AGE + 0.001 CCC.**

**F Statistical Test Results**

**Table 2. F Statistical Test**

ANOVA			
Model	Df	F	Sig.
Regression	8	8.264	.000 <sup>b</sup>
Residual	71		
Total	79		

The table above shows that F arithmetic > F table with a significance below 0.05 (8.264 > 2.07 sig. 0.000), so that overall the independent variables have a significant effect on the dependent variable

**t Statistical Test Results**

The following is a summary of the results of the t statistical test:

**Table 3. Summary of the t statistical test**

Variable	t Calculate	t Table	sig.	Hypothesis
Leverage	-6.025	-1,994	0,017	Accepted
Operating Cash Flow	0,487	1,994	0,627	Rejected

Profitability	2,287	1,994	0,025	Rejected
Sales Growth Sales	-0,269	-1,994	0,788	Rejected
Company Size	2,000	1,994	0,049	Accepted
Fluctuations Sales	1,643	1,994	0,105	Rejected
Company Age	-0,714	-1,994	0,477	Accepted
Cash Conversion Cycle	2,252	1,994	0,027	Accepted

*Source: data processed by researchers (2021)*

### Discussion of Research Results

Based on the first hypothesis testing, it was found that leverage has a significant effect on working capital requirements with a significance of 0.000. The results of the study are consistent with Azzem and Marshap's (2015) research on the Karachi Stock Exchange in Pakistan, high use of debt indicates the company lacks funds from internal companies. This is in accordance with the Pecking Order Theory, which states that the company will be in debt if the company lacks internal funds. However, high debt will be very dangerous for the company, so the company must respond by making efficiency in working capital management so as not to worsen the company's financial situation.

Based on the second hypothesis testing, it was found that operating cash flow had no significant effect on working capital requirements with a significance of 0.627. This result is in line with the research by Kuncoro and Rahayu (2015) which states that operating cash flow has no significant effect on working capital requirements. This result is not in accordance with the pecking order theory, which states that the company will use internal profits to meet the needs of the company. This difference in results can be caused by the company's policy of using cash obtained from operating activities to fund other activities outside of working capital.

Based on the third hypothesis testing, it was found that the profitability variable had an effect on working capital requirements with a significance of 0.025. The results of this study are in line with Azzem and Marsap's (2015) research which found that profitability has a significant effect on the working capital requirements of companies in Pakistan. In general, companies that have a high level of profit, prefer to finance their operational activities with the profit earned, namely retained earnings. This is also in accordance with the Pecking Order Theory which states that companies will choose retained earnings to meet their financial needs, setting up debt and issuing shares. The company will invest some of its retained earnings in current assets to meet the company's operating activities, so that the company's working capital will increase.

Based on the fourth hypothesis testing, it was found that the sales growth variable had no effect on working capital requirements with a significance of 0.788. The results of this study are in accordance with previous research conducted by Azzem and Marsap (2015), but not in accordance with research by Megarifera (2013) which found that sales growth had a significant effect on working capital. Based on pecking order theory, the company will certainly benefit more from the sales growth that occurs and will meet the working capital needs of the existing profits. However, the results of this study indicate that investment in working capital can be met by the company not from the profits earned on sales growth. The difference in the results in this study may be caused by differences in the management of current assets on sales growth because the data in the sample shows that many companies have high working capital despite

declining sales. This shows that the company has a different response

Based on the fifth hypothesis testing, it was found that the firm size variable had a significant effect on working capital requirements with a significance of 0.049. Large companies will need large funds to finance their operational activities, so the amount of investment in working capital will be even greater. The amount of working capital needed by the company can be met from various sources, both from within and from outside the company. Based on pecking order theory, companies will usually meet their financial needs with funds sourced from within the company rather than using debt or issuing new shares which will pose a greater risk.

Based on the sixth hypothesis testing, it was found that the sales fluctuation variable had no significant effect on working capital requirements with a significance of 0.105. The absence of influence between sales fluctuations on working capital needs indicates that the high or low level of sales fluctuations in the company cannot determine the size or size of working capital needs. It can also be said that sales uncertainty that occurred from previous years may not necessarily have an impact on the company's working capital management. The company can still manage working capital well when the company experiences high sales fluctuations or stable sales.

Based on the seventh hypothesis testing, it was not found that there was an effect of company age on working capital requirements with a significance of 0.477. This result means that the age of the company is not a determining factor for working capital requirements. This indicates that the experience of older companies does not guarantee that older companies can manage working capital better, the same applies to young companies. Companies have the opportunity to manage working capital effectively and efficiently when the company is new or has been around for a long time.

Based on the eighth hypothesis testing, it was found that there was a significant effect between the cash conversion cycle on working capital requirements with a significance of 0.027. This shows that the longer the number of days in the cash conversion cycle, the greater the company's working capital needs, because excessive investment in receivables and inventories causes the company to get cash longer. In several other studies, the cash conversion cycle is also used to measure the company's level of efficiency in managing working capital, where the smaller the value of the cash conversion cycle, it can be said that the company has managed working capital efficiently. Because, when the value of the cash conversion cycle is small, it means that the company is able to get cash quickly from its sales which will reduce excess investment in accounts receivable and inventory, and be able to delay payment of its debts, this situation will increase profits for the company.

## CONCLUSION

Based on the results of research and discussion, the conclusions that can be drawn from this research are:

1. Leverage has a significant effect on working capital requirements.
2. Profitability has a significant effect on working capital requirements.
3. Company size has a significant effect on working capital requirements.
4. Cash conversion cycle has a significant effect on working capital requirements.

5. Variable operating cash flow, sales growth, sales fluctuations and age of the company have no significant effect on working capital requirements.

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