

The Effects of Liquidity, Company Growth, and Net Working Capital on Corporate Cash Holding Among Manufacturing Companies Listed in Indonesia Stock Exchange During 2015 - 2020

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ABSTRACT

Cash is a current asset used as a mean of payment and can also be withdrawn whenever the company needs it. Therefore, we need to pay attention to the cash management of the company, by optimizing the amount of cash managed. The purpose of this study was to examine the effects of liquidity, company growth, and net working capital on corporate cash holding among manufacturing companies listed in the Indonesia Stock Exchange (IDX). The data in this study was analysed using panel data regression analysis consisting of 35 companies for the 2015-2020 period. This study used the purposive-sampling technique. The data used was in the form of secondary data, namely financial statements. Data was processed using EViews application version 11. This study reveals that Liquidity has a negative but insignificant effect on Cash Holding. Meanwhile, Assets Growth and Net Working Capital (partially) positively and significantly affect Cash Holding.

Keywords: *Liquidity, Growth, Net Working Capital, Corporate Cash Holding*

1. BACKGROUND

In running a company, adequate funds are needed to carry out the operational activities. In addition to the funds possessed by company owners, funding can be obtained through investment activities [1]. Stock investment aims to obtain investment returns in the form of dividends and capital gains. Financial statements are very important, aiming to provide information on the financial condition of a company, company performance, and cash flow used by the company to make decisions related to company policy. One of the points that companies pay attention to in relation to its policy, is the cash. Being well known, cash is a current asset that is used as a mean of payment and can also be retrieved whenever the company needs it [2]. One of the cash components most desired by management and investors, is cash holding which will be used by managers for the welfare of shareholders. Cash holding is the sum of money held in cash for plans or speculation, deposited or saved in the Bank, and bought in foreign currency or securities [3]. Determining the level of cash holdings in the company is an important decision that must be taken by a manager [4].

Liquidity is a ratio that reflects the company's capability to pay its obligations or to payback its short-term debt. This ratio is used as a tool to measure of how liquid a company is. Measuring the liquidity a company can be done by comparing the elements contained in the balance sheet, namely total

current-assets with total current-liabilities (or short-term debt). This measurement can be done within a certain period of time so that the development of the company's liquidity can be seen from time to time. According to the study results of [5] [6] [7], there is a negative relationship between liquidity and cash holding. Other researchers, [8] and [9], stated the results of their study that there is a negative and significant relationship between liquidity and cash holding.

In supporting company's growth, the amount of funds needed for the future is determined by the company's rapid growth. If the growth-rate of a company is stable, then the sources of funding can come from the capital market or foreign investment, therefore, the company is able to pay high dividends. Several studies have shown that the higher the company's growth opportunity is, the higher the cash owned by the company will be [5]. Research by [10], [11], and [12] show a significant and positive effect of growth opportunity on cash holding.

Net working capital is defined as part of current assets, which can actually be used for operational expenditures of the company's products without disturbing the its ability to pay the short-term debt [13]. Meanwhile, [14] explained the definition of Net Working Capital as: "The net working capital is also the major factor that affects the holding of cash for the firm. NWC is current asset minus current liabilities divided by net assets." Net working capital is the main factor affecting the cash holding of a company.

The factors that influence cash holding have been studied by several researchers including [15] who found that companies with growth opportunities, high cash-flow and net working capital, R&D expenditure, low leverage and paying dividends tend to hold bigger cash, and vice versa. Meanwhile, a company with the opposite characteristics may possess smaller amount of cash. In addition, the researchers also found that leverage, net working capital, capital expenditure, R&D expenditure, and board independence negatively affect corporate cash holding. According to the research by [16], net working capital negatively affect corporate cash holding. The research conducted by [14] revealed that net working capital positively affect corporate cash holding. Meanwhile, other researchers such as [17] and [18], concluded that net working capital and capital expenditure negatively affect corporate cash holding. In addition, these researchers also found that the cash-flow variable did not affect corporate cash holding negatively and significantly.

Based on the above background, it turns out that there are still differences in the results of several factors that affect corporate cash holding. And by this way, the authors want to reexamine the variables that affect corporate cash holding through a study entitled "The Effect of Growth, Liquidity, and Net Working Capital Against Corporate cash holding Among Manufacturing Company Listed in Indonesia Stock Exchange During 2015 - 2020."

2. LITERATURE STUDY

2.1. Corporate Cash Holding

Corporate cash holding is defined as follow: "Cash holding is defined as cash in hand or readily available for investment in physical assets and to distribute to investors. Corporations hold a certain amount of liquid balance" [19]. From this definition, cash holding can be invested for physical assets and / or distributed to investors. Companies in general will tend to hold a certain level of liquid cash-holding. Meanwhile, [18] defined corporate cash holding as: "Cash holding is central to their cash flows, working capital decisions, capital expenditures planning, capital structure and overall cost of financing".

The cash holding theory used in this study, is the theory of [5], stating that management will maximize the shareholders' wealth, if management determines the cash-holding level, when the marginal benefit and marginal cost levels are at an equal level. Figure 1 displays the curve of marginal cost when possessing liquid assets and when lacking liquid assets.

The curve of marginal cost is assumed to be vertical when there is a shortage of liquid assets. Meanwhile, when holding liquid assets, it is assumed to be horizontal (parallel). One of the considerations for holding liquid assets is a low return, because one of the advantages of owning liquid assets is that they are easy-to-convert into cash. If a company lacks liquid assets, it can take action, namely by reducing investment, or by obtaining capital

through the issuance of shares, bonds, or by selling assets. An increase in costs from a shortage of liquid assets will shift the curve of marginal cost to the right so that it will increase the ownership of the company's liquid assets as depicted in Figure 1.

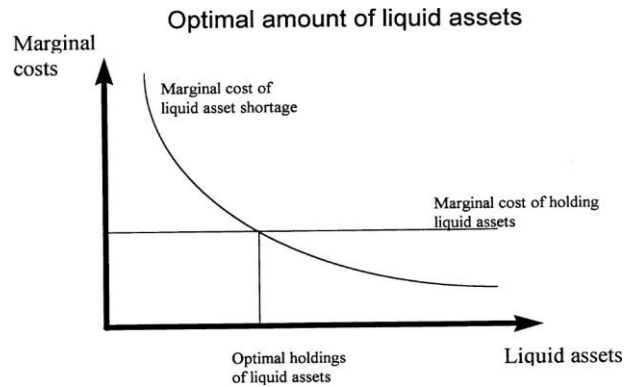


Figure 1 The Optimal Amount of Liquid Assets

2.2. Liquidity

Liquidity ratio reflects the company's capability to pay its obligations or short-term debt. Liquidity ratio is used as a tool to measure how liquid a company is. There are two ways in measuring the liquidity ratio, consisting of current ratio and quick ratio. In this research, in order to measure the liquidity, the authors used the current ratio.

According to the results of [5], [6], and [7], liquidity and cash holding have a negative relationship on the ground that companies can settle their preventive and transactional needs with liquid assets instead of cash. The higher the liquidity of a company is, the higher its liquid assets will be, as a substitute for cash so that the company may hold less cash due to the replacement by this liquid asset. Other researchers [8] and [9] stated the results of their studies that there is a significant and negative relationship between liquidity and cash holding. Based on this description, the following hypothesis could be developed as follow:

H₁: Liquidity negatively affect cash holding.

2.3. Company Growth

Company growth greatly influences the balance sheet and cash flow. The creation of investment activities will increase investors' expectations of a higher rate of return [20]. The opening of investment opportunities in a company will provide a positive signal for investors about its future growth, which indirectly affects the company's value.

The high investment opportunity the company has shown, the higher the company's ability will be, to obtain returns that can be used as cash reserves. Companies with high-growth opportunities will prefer to hold excess liquid-assets [21]. Several studies have shown that the higher the company's growth opportunity is, the higher the sum of cash owned by the company will be [5]. The research by [10],

[11], and [12] show a significant and positive effect of growth opportunity on cash holding.

H₂: Growth opportunity positively and significantly affects cash holding.

2.4. Net Working Capital

[13] argued that: "net working capital is defined as part of current assets which can actually be used for operational expenditures of the company's products without disturbing the company's ability to pay its short-term debt". According to the trade-off theory, net working capital and cash holding can have a positive or negative relationship. According to [14], this can happen because net working capital can be used as an alternative of cash in the aspect of liquidity. When there are other liquidity sources in a company, the trade-off theory estimates that the company may have little cash, due to the liquidation of liquid assets whenever the company needs cash. This theory shows the transaction motive in cash holdings. Thus, this indicates a negative relationship.

A study conducted by [14] found a positive relationship between cash holding and net working capital. This is because "Net Working Capital shows that if the firm's requirement for NWC is more, it would hold more cash". Net Working Capital shows that if a company needs a lot of cash, it will also hold more cash. This theory is also in line with the research conducted by [22] which stated that there is a positive relationship between cash holding and net working capital. This occurs because the addition in net working capital indicates a greater cash amount, because companies, that are liquid, tend to have higher cash balances. As consequences, the opposite characteristic occurs for companies with lower liquidity.

H₃: Net working capital positively and significantly affects cash holding.

3. METHODOLOGY

This research is associative research. Manufacturing sector companies listed in the IDX during 2015-2020 are used as the scope of this research area. Quantitative data in the form of financial reports, becomes the source of data in this study. This study uses independent and dependent variables. The independent variables are liquidity, growth opportunity, and Net Working Capital. Meanwhile, the dependent variable is Corporate cash holding.

The sample selection technique was done by using the purposive-sampling technique, which is a technique of taking samples based on certain specific criteria, which can provide the desired information or because the sample is the only one available. The criteria in the purposive-sampling technique used in this study, are as follows: Manufacturing companies listed in the Indonesia Stock Exchange (IDX) that have financial reports and have been audited in rupiah units in the 2015-2020 period.

Based on the characteristics of sample selection used in this study, it can determine which companies that can be

selected to be included in a sample consisting of 35 companies.

Cash holding is the cash that is ready to be used by a company to invest in physical assets. The optimal amount of cash holdings indicates good liquidity of the company. The measurement of cash holding in this study was adopted based on the research conducted by [23], namely the total value of cash and its equivalents divided by total assets minus cash and its equivalents.

$$CH = \frac{\text{Cash and Cash Equivalent}}{\text{Net Total Assets}} \times 100\%$$

Net working capital is the total working capital owned by a company, that is used by the company for expenses related to company operations. The calculation of net working capital was adopted from the research by [18], namely total current assets minus current liabilities to total assets.

$$NWC = \frac{\text{Current Asset} - \text{Current Liabilities}}{\text{Total Assets}} \times 100\%$$

Assets Growth shows the growth of assets, whereas they are used as the company's operational assets. The greater the assets are, the greater the operational results produced by the company will be.

Company growth is measured by using the changes in total assets. Asset growth constitutes the difference between total assets owned by a company in the current period with those in the previous period, and then divided by the total assets of the previous period.

$$\text{Assets Growth} = \frac{(\text{total asset } t - \text{total asset } t-1)}{\text{total asset } t-1}$$

A ratio to measure the liquidity is the Quick Ratio (QR). This ratio measures the company's liquidity in meeting its short-term liabilities using its current assets except for its inventory.

$$\text{Quick Ratio} = \frac{\text{Current Asset} - \text{Inventory}}{\text{Total Asset}}$$

This study used panel data, that constitutes the cross-sections and time-series data combination. There are three methods that can be used in this research, namely:

- a. Common Effect Model (CEM) is a model with existing data using cross-section and time-series units without considering the characteristics between individuals and time, which will lead to differences in coefficients.
- b. Fixed Effects Model (FEM) is a model to assume that in the intercept, there are differences between individuals. The Fixed Effects Model adds a dummy variable to explain the difference between each intercept. Such a model is also known as the Least Square Dummy Variable (LSDV) parameter.
- c. Random Effects Model (REM) is a model like the Fixed Effects Model, but in this model, it is again assumed that each individual difference and time is influenced by the intercept element. In the Random Effects Model, the

value of the intercept of individuals is random (random effects). This kind of model is also known as the Error Component Model (ECM) or the Generalized Least Square (GLS) technique.

X_3 = Net Working Capital
 e = Error

The model of the regression equation in this study is as follow:

$$Y = a + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e$$

Description:

- Y = Cash Holding
- a = Intercept Coefficient
- β_i = Regression Coefficient
- X_1 = Liquidity
- X_2 = Company Growth

4. RESULTS

The F-test (ANOVA) is used to test the hypothesis jointly, while the t-statistic test aims to test the hypothesis partially [24].

Descriptive statistical analysis in this study aimed to produce a more-detailed data description from the variables. The descriptive statistics includes the mean, median, maximum, minimum, standard deviation, skewness, and kurtosis.

Table 1 The Descriptive Statistics of Research Variables

Parameter	Cash Holding	NWC	Growth	Liquidity
Mean	0.116395	0.248465	0.438657	15.63046
Median	0.105827	0.237500	0.367200	15.20456
Maximum	2.408710	0.801354	0.89439	20.06482
Minimum	0.001000	-0.414875	0.073650	12.75639
Std. Dev.	0.302876	0.259376	0.205848	1.682341
Skewness	5.012746	-0.103956	0.402857	0.274566
Kurtosis	24.84723	2.528476	2.682546	2.539863
Jarque-Bera	4873.649	0.528752	8.628736	3.964915
Probability	0.000000	0.857391	0.014713	0.129562
Observations	175	175	175	175

Source: EViews version 11

Based on the data presented in Table 1, it can be concluded that the average value of the corporate cash holding variable is 0.116395. The standard deviation of the corporate cash holding variable is 0.302876, the maximum and minimum value of the cash-holding variable are 0.801354 and 0.001000, respectively. The average value of the Net Working Capital variable is 0.248465, the standard deviation is 0.259376, and the maximum and minimum values are 0.796 and -0.414875. The average value of the

growth variable is 0.438657, the standard deviation is 0.205848 and the maximum and minimum values are 0.894394 and 0.073650, respectively. For multiple regression analysis, after performing the classical-assumption test and selecting the better model in estimating panel data, the authors used the Fixed Effect Model (FEM) as presented in Table 2.

Table 2 The Results of Fixed Effect Model in Multiple Linear Regression

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.921957	1.034094	1.858591	0.0647
NWC	1.364276	0.166827	8.177787	0.0000
Growth	0.347688	0.192547	1.805730	0.0427
Liquidity	-0.144871	0.066445	-2.180313	0.1348
R-squared	0.885376			
Adjusted R-squared	0.864623			
F-Statistics = 17.495625	Prob (F-statistics) = 0.0000			

Source: The Results of Data Processing using EViews version 11

From the results of the regression analysis above, it is found that Net Working Capital has a significant and positive effect on Cash Holding with a p-value of 0.0000. Company growth variable positively and significantly affects cash holding with a p-value of 0.0472. Last, the liquidity variable

has no significant effect on cash holding with a p-value of 0.1348.

The adjusted R-squared value is 0.864623, meaning that the contribution of Net Working Capital, Company Growth, and Liquidity to Cash Holding is 86.46%, while the

remaining 13.54% is caused by other variables not in the scope of this research.

The F-statistics value is obtained at 17.495625 with a significance of 0.0000, which means that Net Working Capital, Company Growth, and Liquidity variables simultaneously and significantly affect Cash Holding.

5. DISCUSSIONS

The liquidity variable negatively but insignificantly affect cash holding. Current ratio is used as a tool to measure the company's financial capability to pay its short-term debts by comparing current assets with current debt. In other words, it is about how many current assets available to cover the short-term liabilities that are due soon. However, in some special conditions, not every time a current asset other than cash can be a substitute for cash. This indicates that high or low liquidity does not have significant effect on the level of the company's cash holding. The result of this study is in accordance with those conducted by [25], [22], and [26] who stated that there is no evidence to support that liquidity is an important element for companies in making decisions on the level of cash-holding.

Assets Growth positively and significantly affect cash holding. This result supports the studies by [10], [11], and [12]. The bigger the growth opportunity of a company is, the bigger the chance to get a higher return will be, so that the company's ability to maintain cash as meeting future investment needs is higher. Based on the pecking-order theory, companies with large growth opportunities will prefer to use internal sources of funds to meet their investment needs. Companies with high growth opportunities, will require a large capital for investment, but the availability of external capital is usually very low and expensive. So, to reduce the missed investment opportunities, companies will prefer to hold the excess of liquid assets. The result of this study contradicts those of previous studies performed by [27] and [28] stating that growth opportunity has no effect on cash holding, and shows that an increase or decrease in total assets will not affect the determination of cash levels held in a company.

Net working capital positively and significantly affects cash holding. This result indicates that the higher the net working capital is, the higher the determination of the level of cash-holding owned. So, this result is not in accordance with the trade-off theory, which states that net working capital and cash holding have a negative relationship. An addition in net working capital causes a greater cash balance, because companies with high liquidity are eager to have higher cash balances, and vice versa in companies with lower liquidity [29]. This result is in line with the studies concluded by [5], [30], and [29], which stated that net working capital can be a good substitute for cash holding. This is because net working capital is very liquid to be used as cash whenever the company needs funds. The result of this study is also consistent with the results of the research conducted by [27] and [12], which showed that net working capital and cash holding have a positive relationship. However, the result of

this study contradicts the research conducted by [31], which stated that net working capital does not affect cash holding.

6. CONCLUSIONS

There is no significant effect of liquidity on cash holding. This indicates that the high or low liquidity has no significant effect on the level of the company's cash-holding. Assets Growth has a significant and positive effect on cash holding, which means that the higher the growth opportunity of a company is, the higher the chance to get a greater return will be, so that the company's ability to maintain cash as meeting investment needs in the future is higher. There is a significant and positive effect of net working capital on cash holding. This shows that the higher the net working capital is, the higher the determination of the level of cash-holding owned will be. Thus, this result is not in accordance with the trade-off theory, which states that net working capital and cash holding have a negative relationship.

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