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## **THE INFLUENCE OF DIVIDEND PAYMENTS, PROFITABILITY, LIQUIDITY AND FIRM SIZE FOR CASH HOLDINGS - CASE OF INDONESIAN MANUFACTURING COMPANIES**

### **Abstract:**

This study is aimed at examining the influence of dividend payments, profitability, liquidity, and firm size for cash holdings in manufacturing companies. The population of this study was manufacturing companies listed in Indonesia Stock Exchange between 2010 and 2014. The population of this study was manufacturing companies that listed in Indonesia Stock Exchange which published financial statements by December 31st and paying dividend payments respectively during the observation period (2010-2014). This study used census method and collected cross-sections data. Thus, 32 companies were selected or 160 observation data were analysed. The data was collected from published financial statements. The analysis method used in this study was multiple linear regression. This study found that dividend payments, profitability, liquidity, and firm size both collectively and individually have an effect on cash holdings in the manufacturing companies. Therefore, the results are consistent with previous research findings, although it was carry out in a single industry and in a developing country.

### **Keywords:**

Dividend Payments, Profitability, Liquidity, Firm Size, Cash Holdings

**JEL Classification:** G21

## 1. Introduction

Cash is the most liquid form of assets and can be used immediately to cover operational expenses of company (Smith and Skousen, 2002:243). In a company, the detention of cash is well known with a term cash holdings. Gill and Shah (2012) define cash holdings as cash in the hand or available for invested on assets physical and to be distributed to investors. Cash holdings is the ratio which compares between the number of cash and equivalent cash owned company with the number of assets company as a whole (Opler, Pinkowitz, Stulz and Williamson, 1999; Ozkan and Ozkan, 2004; Arslan, Florackis and Ozkan, 2006; Al-Najjar, 2013).

The phenomena that occurred at manufacturing companies listed in the Indonesia Stock Exchange period 2010-2014 was a high variation of cash holding in the manufacturing companies. In this period, the highest cash holdings was 70.19 % of the total assets and the lowest was 0.21 % of the total assets. This is what attract the researcher to reviews and analyse what factors can determine cash holdings.

There are some previous studies that explain why the company performs cash holdings in the specific amount of such as transaction motive, precautionary motive, speculative motive and arbitrage motive (Keynes, 1936) which the company accumulate cash for anticipating the possibilities of cost that may occur in the future. Bates, Kahle, and Stulz (2009) also mention that there are four main motivation of companies in holding cash i.e. transaction motive, precautionary motive, tax motive, and agency motive.

However, research in cash holdings is still scanty (Couderc, 2005). Al-Najjar (2013) believe that that the determinants of cash holdings need to be investigated further because cash holding practice cost every company substantially. Therefore, the purpose of this study are to testing and analysing the influence of dividend payments, profitability, liquidity, and firm size for cash holdings of manufacturing companies listed in the Indonesia Stock Exchange both collectively and individually.

## 2. Literature Review

### *Cash Holdings*

Cash holdings in an enterprise can be explained by the theory Keynes (1936) about corporate profits to hold back cash the cost lower transaction and should not be liquidates assets to finance obligations when needed. Cash holdings is cash detained by a company to precautionary motive, transactions motive, and speculation motive (Baker and Powell, 2005:165). Arthur, John, William and David (2010: 270) also define cash holdings as currency and coins which is in your company in a drawer petty cash, a cash register, or in of checking accounts and money market.

In cash holdings theory, cash holdings profit for the company according to Keynes (1936): (1) companies can be able to save transaction costs and no need to liquidates

the assets if the company need cash; (2) if the source of outside cash financing is really difficult or very expensive; (3) having cash is very useful as a resource of financing, especially when credit crunch occur.

Further, Keynes (1936) claimed that there were some benefits to cash holdings based on some motives from a company that does cash holdings among other: transaction motive, precautionary motive, speculative motive and arbitrage motive. Bates et al. (2009) mentioned that there are four main motivations for the firm do cash holdings: transaction motive, precautionary motive, tax motive, and agency motives.

Cash holdings can also be used for some things, namely: (1) be distributed to the shareholders of dividends (Opler et al., 1999; Ozkan and Ozkan, 2004; Al-Najjar and Belghitar, 2011), (2) share repurchases (Soo Lee and Suh, 2011), (3) do investments or keep it for the benefit of companies in the future (Arslan et al., 2006; Ginglinger and Saddour, 2007). According to Ferreira and Vilela (2004) the benefits of cash holdings are: (1) reducing in the likelihood of financial distress, (2) allowing the pursuance of investment policy when financial constraints were met, and (3) minimizing the costs of raising external funds or liquidating existing assets.

Based on previous literature (Opler et al., 1999; Ozkan & Ozkan, 2004) there are two theories that underlie the companies have cash holdings: trade-off theory and the pecking order theory. Daher (2010) said that explaining cash holdings using three major theories: trade-off theory, pecking order theory, and agency theory.

#### *Dividend Payments*

Baridwan (2004:434) stated that the dividend is the portion of profit or advantage distributed to shareholders in the number of comparable to the number of shares owned. Dividends were distributed as part of companies' profits that become the right of a shareholder. Sudana (2011: 24) define dividend pay-out ratio is the ratio that measures how much net profit after a tax is paid as dividends to the shareholders.

#### *Profitability*

Profitability is the ability of company deriving profit in connection with sales, total assets and their own capital (Sartono, 2010:122). The profit is reached by company in a particular period is one of the best health factors an enterprise. The shareholders invest to get return over their money (Brigham and Houston, 2013:149).

#### *Liquidity*

Liquidity in general can be defined as the level of the ability of an enterprise to be able to pay its debts maturing (Kasmir, 2011:110). Hanafi (2008:77) stated that liquidity also could be defined as a skill of an enterprise meets financial obligations in the short term or that must be paid. Liquidity is also an indicator of company about the ability to pay all financial obligations short-term at maturity using available assets smoothly.

### *Firm Size*

Firm size describes the amount of an enterprise shown by total assets and amount of sales (Sujianto, 2001). Machfoedz (1994) stated that the determination of the size of the company usually is based on total assets company. Further, Machfoedz (1994) explained that the firm size divided into three categories: large firm, medium firm, and small firm.

### **3. Research Method**

This study included in a kind of hypotheses testing which tested the independent variable (dividend payments, profitability, liquidity and firm size) of dependent variable (cash holdings). The population of this study consist of manufacturing companies listed in Indonesia Stock Exchange that published financial statements with accounting year by December 31st and making dividend payments respectively during the observation period years 2010-2014.

The data used in this study is cross-sections data. Cross-sections that is conducted in manufacturing companies listed in Indonesia Stock Exchange that published financial statements with accounting year by December 31st and making dividend payments respectively during the observation period years 2010-2014 are 32 cross-sections or 160 observations.

The data used in this study was secondary data of financial reports and dividends list of a share manufacturing companies from year 2010-2014 obtained through the internet access in the official site of the Indonesian Stock Exchange. Other secondary data used is the theoretical data that supports this study, obtained by means of studies books, journal, articles and other piece of writing.

### *Cash Holdings (Y)*

Cash holdings is a sum of money detained in cash to plans or speculation, deposited or kept at bank, and just gave foreign currencies or securities (Gilarso, 2008:227). Opler et al. (1999) defined that cash holdings is a ratio of the cash with company's assets. Arslan et al. (2006) define cash holdings is the ratio of cash and equivalents to total assets. Size to determine the amount of variable cash holdings in in this research was (Opler et al., 1999; Ozkan dan Ozkan, 2004; Arslan et al., 2006):

$$\text{Cash Holdings} = \frac{\text{Cash and Equivalents}}{\text{Total Assets}}$$

### *Dividend Payments (X1)*

Arthur et al. (2010:201) defined that the ratio of dividend payments is the large of dividends relatively paid to net profit or earnings per share. Al-Najjar (2013) defines dividend payments is dividend payout ratio that is measured by dividend per share divided by earning per share. Therefore, the formula the measurement of dividend payout ratio (DPR) is as follows (Husnan, 2008:381; Al-Najjar, 2013):

$$\text{DPR} = (\text{Dividend per Share}) / (\text{Earning per Share})$$

#### *Profitability (X2)*

Sartono (2010:114) explained that one gauge for indicating the effectiveness of company in producing profit for each asset planted is profitability. In this study, the profitability ratio used is return on equity (ROE), the comparison of earnings after tax as equity shareholders. Al-Najjar (2013) measures the profitability with ROE by comparing earnings after tax as equity shareholders. Profitability can formulate as follows (Sartono, 2010:124; Sudana, 2011:22, Al-Najjar, 2013):

$$\text{ROE} = (\text{Earnings After Tax}) / \text{Equity}$$

#### *Liquidity (X3)*

Liquidity is capability of company in satisfying a short term obligation. The liquidity ratio used to measures the company to meet short term liabilities (Van Horne and Wachowicz, 2013:167). The most common liquidity ratios and often used is the current ratio, by summing current assets with total current liabilities company (Sartono, 2010:116). Current ratio (CR) can formulate as follows (Sudana, 2011:21; Van Horne dan Wachowicz, 2013:167; Al-Najjar, 2013):

$$\text{CR} = (\text{Current Assets}) / (\text{Current Liabilities})$$

#### *Firm Size (X4)*

Basyaib (2007:122) said that firm size is a scale that can be classified the amount of company according to various ways, such as size income, total assets and in total capital. Firm size is the natural logarithm of total assets (Ozkan and Ozkan, 2004). Al-Najjar (2013) also indicated that firm size is the natural logarithm of total assets. Thus, firm size can formulated as follows (Ozkan dan Ozkan, 2004; Arslan et al., 2006; Kim et al., 2011; Al-Najjar, 2013):

$$\text{SIZE} = \ln (\text{Total Assets})$$

#### *The Analysis Method and Hypotheses Testing Design*

The analysis method that used to test hypotheses was multiple linear regression several connecting the independent variable (dividend payments, profitability, liquidity, and firm size with one dependent variable (cash holdings). Data processing done with on the SPSS (Statistical Package for Social Science). The analysis methods used in this study were descriptive analysis, the classic assumption testing and multiple linear regression.

Research methodology used census method, thus there was no significance testing. Hypotheses testing design were done in two steps, the testing design of simultaneously hypotheses and partial hypotheses.

#### 4. Findings and Discussions

The unit analysis of this study was manufacturing companies listed in the Indonesia Stock Exchange who publishes the financial report of the company and a list of dividends per share for five years (period 2010-2014). Research methodology used census method. The data used in this study was cross-sections data. The analysis method used in this study were descriptive analysis, the classic assumption testing, multiple linear regression and the hypotheses testing based on the design of the hypotheses testing that had been made.

<b>Variables</b>	<b>N</b>	<b>Min.</b>	<b>Max.</b>	<b>Average</b>	<b>Standard Deviation</b>
<i>Cash Holdings</i>	32	0.0245	0.4402	0.1657	0.1291
Dividend Payment	32	0.0868	0.9469	0.4379	0.2429
Profitability	32	0.0340	1.0598	0.2666	0.2175
Liquidity	32	0.7235	7.2624	3.0873	1.8306
Firm size	32	25.462	32.790	28.812	1.7691

Tabel 1. Descriptive statistic result

Source: SPSS output

#### *The Post Estimation Test Results*

Testing normality was conducted by seeing value significant at the Shapiro-Wilk of in test of normality table, because the data used in this research 32 cross-sections (smaller than 50). In test of normality table, value significance to shapiro-wilk for all independent variable in this study greater than 0,05. This shows that the data used in this study is a normal distribution.

Multicollinearity test is conducted by seeing Variance Inflating Factor (VIF) of each variable. Value VIF demonstrate that there is no variable free having the value VIF greater than 10 (1,137 -- 1,232). Based on value VIF of each independent variable for which having a value less than 10, so that can be concluded that did not happen multicollinearity between the independent variable in the regression model.

Heteroscedasticity test results performed with use Glejser test, shows that regression model was not suffering from a heteroscedasticity, because of the value of significance for all independent variable in this study in Glejser test table greater than 0,05 so does not occur heteroskedasticity symptoms.

#### *Multiple Linear Regression Testing Results*

To test the influence of dividend payments, profitability, liquidity and firm size to cash holdings with simultaneously or partially used the method of multiple linear regressions. The results of regression can be seen in table 2.

Tabel 2. Multiple Linear Regression and Determination Coefficients Value

The regression equation:

$$Y = \alpha + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \varepsilon$$

$$\ln Y = -7,419 + 0,097\ln X_1 - 0,030\ln X_2 + 1,091\ln X_3 + 1,278\ln X_4 + \varepsilon$$

$$R^2 = 0,531$$

Through results SPSS program, and then obtained the regression, equation is linear worship of idols as follows:

$$\ln Y = -7,419 + 0,097\ln X_1 - 0,030\ln X_2 + 1,091\ln X_3 + 1,278\ln X_4 + \varepsilon$$

#### *Hypotheses Testing Results*

The hypotheses testing undertaken in accordance with a hypothesis that has been formulated. Furthermore, to test hypotheses that had been received then done the testing simultaneously and partially.

#### *Simultaneously Testing Results*

The results of testing in simultaneously of multiple linear regression shows a value the regression coefficient ( $\beta$ ) each variable are:  $\beta_1 = 0.097$  for dividend payments variables,  $\beta_2 = -0.030$  for profitability variables,  $\beta_3 = 1.091$  for liquidity variables and  $\beta_4 = 1.278$  for firm size variables.

The determination of hypothesis mentioned that at least one  $\beta_i \neq 0$  ( $i = 1, 2, 3, 4$ ), so  $H_{a1}$  accepted, it means simultaneously dividend payments, profitability, liquidity, and firm size an effect on cash holdings in manufacturing companies listed in the Indonesian Stock Exchange. This outcome support first hypotheses ( $H_1$ ) which was formulated simultaneously dividends payments, profitability, liquidity, and firm size an effect on cash holdings in manufacturing companies listed in the Indonesian Stock Exchange.

The determination coefficients value ( $R^2$ ) is 0.531 or 53.1 %, this indicates that 53.1 % cash holdings change can be determined by the four independent variable in this

study were dividends payments, profitability, liquidity, and firm size, while the rest of 46.9 % was influenced by other variables which were not analysed in this study.

### *Partially Testing Results*

The partially testing results on multiple linear regression shows that the regression coefficient each variable are  $\beta_1 = 0.097$ ;  $\beta_2 = -0.030$ ;  $\beta_3 = 1.091$  and  $\beta_4 = 1.278$ . The determination of hypothesis stated that  $\beta_i (i=1,2,3,4) \neq 0$  so that  $H_{a2}$ ,  $H_{a3}$ ,  $H_{a4}$ , and  $H_{a5}$  accepted. It means that dividend payments, profitability, liquidity, and firm size has an effect on cash holdings partially in manufacturing companies listed in Indonesia Stock Exchange.

The individual effect of dividend payments on cash holdings in the manufacturing companies listed in Indonesian Stock Exchange is confirmed. The regression coefficient value of 0.097 also indicates that each to raise the dividend payments of 1 % will result in the increase in to cash holdings of 0.097% assuming profitability, liquidity and firm size variables is constant.

The profitability impact on cash holdings is also confirmed in this study. The regression coefficient value of  $-0.030$  also indicates that each to raise the profitability of 1% will result in the decrease in to cash holdings of 0.030% assuming dividend payments, liquidity and firm size variables are constant. The liquidity impact on cash holdings has been found. The regression coefficient value of 1.091 also indicates that each to raise the liquidity of 1% will result in the increase in to cash holdings of 1.091% assuming dividend payments, profitability, and firm size variables are constant. The firm size impact on cash holdings is also documented in this study. The regression coefficient value of 1.278 also indicates that each to raise the firm size of 1% will result in the increase in to cash holdings of 1.278% assuming dividend payments, profitability, and liquidity variables are constant.

## **5. Discussion**

### *The Influence of Simultaneously Dividend Payments, Profitability, Liquidity and Firm Size to Cash Holdings*

The regression coefficient value of the independent variables dividend payments, profitability, liquidity, and firm size to cash holdings each of  $\beta_1 = 0.097$ ;  $\beta_2 = -0.030$ ;  $\beta_3 = 1.091$ ; and  $\beta_4 = 1.278$ . The regression coefficient value indicates that dividend payments, profitability, liquidity, and firm size not equal to zero ( $\beta_i \neq 0$ ;  $i = 1, 2, 3, 4$ ). Thus, simultaneously dividends payments, profitability, liquidity, and firm size an effect on cash holdings in manufacturing companies listed in the Indonesian Stock Exchange.



### *Influence of Dividend Payments to Cash Holdings*

Based on the results of previous hypotheses testing can be concluded that dividend payments had a positive effect on cash holdings. Thus, the bigger dividend payments of a firm, the larger cash holdings done by the firm, or otherwise.

The result of this study consistent with the results of the study Opler et al. (1999), Drobetz and Gruninger (2007) and Jinkar (2013) who showed that dividend payments had a positive effect on cash holdings. This result in accordance with statements from that company, which decided to distribute dividends usually back up great cash. This is done to maintain smooth dividend payments and keep liquidity the company remain better after the dividend payments (Jinkar, 2013). Opler et al. (1999) said that the company, which paid dividends, would hold much cash to support the dividend payments.

### *Influence of Profitability to Cash Holdings*

Based on the results of hypotheses testing, can be concluded that profitability had a negative effect on cash holdings. This result indicates that the higher profitability a firm would be capable of lowering cash holdings a firm.

The result of this study support the results of the study Al-Najjar (2013) in the case of cash holdings in the Brazil, China and United States, as well as the results study Olatunde, Ogundipe and Ajao (2012) who showed that profitability had a negative effect on cash holdings. This result in accordance with statements from that the company to the level of profitability high will do a cash holdings, because cash allocated to short-term investments favorable (Arslan et al., 2006; Ginglinger and Saddour, 2007 and share repurchases (Soo Lee and Suh, 2011).

### *Influence of Liquidity to Cash Holdings*

Based on the results of hypotheses testing, can be concluded that liquidity had a positive effect on cash holdings. Thus, the bigger liquidity of a firm the larger value cash holdings done by the firm or otherwise.

The result of this study consistent with the results of the study Al-Najjar (2013) in the case of cash holdings in the United States that is liquidity have a positive effect on cash holdings. The result in accordance with statements from that the company with a high liquidity will also do cash holdings a great, to pay all short-term financial liabilities at maturity. This is done to maintain smooth the payment of a short-term financial liabilities and keep liquidity the company remain better after the payment of a short-term financial liabilities (Arthur et al., 2010:272).

### *Influence of Firm Size to Cash Holdings*

Based on the results of hypotheses testing, can be concluded that firm size had a positive effect on cash holdings. Thus, the large firms, the larger cash holdings done by the firms, or otherwise.

The result of this study support the results of the study Afza and Adnan (2007), Soo Lee and Suh (2011) in the case of cash holdings in Canada, Britain, United States, and study Al-Najjar (2013) in the case of cash holdings in China and United States, which indicates that firm size had a positive effect on cash holdings. This showed that large firms are considered more diversified than their small counterparts are and turn less prone to bankruptcy related costs and hence likely to hold more cash (Al-Najjar and Belghitar, 2011).

## 5. Conclusions and recommendations

The conclusions of this study are: (1) simultaneously, dividend payments, profitability, liquidity, and firm size had an effect on cash holdings in manufacturing companies listed in the Indonesia Stock Exchange; (2) dividend payments had a positive effect on cash holdings in manufacturing companies listed in the Indonesia Stock Exchange; (3) profitability had a negative effect on cash holdings in manufacturing companies listed in the Indonesia Stock Exchange; (4) liquidity had a positive effect on cash holdings in manufacturing companies listed in the Indonesia Stock Exchange, and (5) firm size had a positive effects on cash holdings in manufacturing companies listed in the Indonesia Stock Exchange.

Recomendations that can be proposed from the study are: further research could be done in all companies registered in Indonesian Stock Exchange that the results of research next can more diversified and conclusions that resulted having the broader that is they did not only on manufacturing companies. Researchers next is also suggested to do testing in test variable other alleged impact on cash holdings as debt, corporate governance, growth opportunities, capital expenditure, net working capital, cash flow, and other financial variables were expected to be affecting on cash holdings company.

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