InCAF PROCEEDING OF INTERNATIONAL CONFERENCE ON ACCOUNTING AND FINANCE

Volume 2, 2024, PP: 1045-1052

The effect of profitability, growth opportunity, leverage, and firm size on cash holding

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Abstract

This study aims to determine and analyze the effect of Profitability, Growth Opportunity, Leverage and Firm Size on Cash Holding in manufacturing companies in the food and beverage sub-sector industry listed on the Indonesia Stock Exchange for the 2019-2022 period. The research method used in this research is quantitative method. The data used is secondary data, namely in the form of annual reports and financial data on manufacturing companies in the food and beverage sub-sector industry sector from 2019 to 2022. The sampling method used purposive sampling method and obtained 18 sample companies for four years of observation (2019-2022) so that there were 72 samples. Hypothesis testing in this study using multiple linear regression analysis. The results showed that partially Profitability has an effect, while Growth Opportunity, Leverage and Firm Size have no effect on Cash Holding.

Keywords: Profitability, Growth Opportunity, Leverage, Firm Size, Cash Holding.

INTRODUCTION

Cash is a current asset or asset that is very liquid and can be used quickly and immediately to meet the needs of company activities, for example paying short-term debt. Cash inventory in hand (cash holding) is an amount of cash that is and is available in the company to be invested and can be used to meet company needs. As the importance of determining the amount of cash holding in the company as a whole is reflected in the view of "cash is king". This view states that the company views cash as very important because the supply of cash within the company and in the bank is needed to fulfill the company's operational activities and payment of anything unexpected in the future.

There are several factors that affect cash holding, namely profitability, growth opportunity, leverage, and firm size. Profitability or profit is the ability of a company to generate corporate profits in a certain period through its business operations using assets owned by the company at the level of sales, assets, and share capital. The profitability ratio describes the company's ability to generate profits. According to research by Silaen & Prasetiono (2017) companies with high profitability have a tendency to hold large amounts of cash. Companies that have a higher profit level, compared to companies that have a low profit level, allow the level of cash received by the company to be greater than companies that have a low profit level.

William & Fauzi (2013) in their research stated that growth opportunity is a combination of possible future investment opportunities with real assets owned by a company. Companies that hold small amounts of cash are generally companies that have good growth opportunities, because these companies need to meet investment needs when needed.

According to research by Ali et al. (2016) leverage is an event where the company buys more of its assets on credit with the assumption that the income provided from the use of these assets will be higher than the purchase cost. A company that has a high level of leverage is less attractive to investors to invest in the company because it can increase the risk of non-payment of debt or even bankruptcy of the company and cause losses for investors.

LITERATURE REVIEW AND HYPHOTESIS DEVELOPMENT

Literature Review

Agency Theory. According to Scott (2015: 256) the relationship between owners and managers is essentially difficult to create because of conflicting interests. Owners are motivated to contract with agents to make themselves prosperous through increased profitability or company profits. Agency theory discusses the relationship between a business owner and someone who runs the business. Jensen & Meckling (1976) in their research explain that agency theory is the relationship between the agent (management of a business) and the principal (business owner). In an agency relationship there is a contract made by one or more people (principals), in this case shareholders order other people (agents) such as managers to perform a service on behalf of the principal and authorize the agent to make the best decision for the principal. In this case, shareholders hand over their authority to managers to manage assets to generate profits for the company. Thus, the delegation of authority will cause problems. According to Jensen & Meckling's (1976) research, there are companies with simple capital and funding structures, company management will act as a single ownership holder so that it does not cause agency problems within the company. However, in companies that have traded their shares to the public, agency problems will automatically occur in the company because there are many parties involved. This agency theory creates a difference of interest between the principal and the agent. The principal wants a large profit sharing on his share ownership and also reporting according to actual conditions, while the agent wants a large bonus distribution from the principal for performance. This triggers a mismatch between the actual situation and what each party wants.

Pecking Order Theory. Myers (1984:55) states that when the company has excess cash and is confident in the profits from investment, the excess will be given to shareholders in the form of dividends. This theory says there is no optimal level of cash holding, but cash has a very important role, namely as a buffer between retained earnings and investment needs. Cash availability exists when the company generates profits that are higher than its investment needs. When the company has high cash availability and investment profitability, dividend distribution will be made to distribute profits to shareholders. This theory states that in determining the funding used by the company, internal funding is preferred over external funding because the cost of internal funding is cheaper than external costs. Companies will hold large amounts of cash to avoid using external funding. The importance of cash causes the company to hold a large amount of cash. If funding from retained earnings is not enough, external funding will be used before finally issuing equity.

Trade-off Theory. Keown et al. (2016: 674) state that financial managers must find an acceptable balance sheet for too much and too little cash. Large cash investments can minimize the company's insolvency opportunities as well as be dangerous for the company's profitability due to the trade-off between the rate of return and risk. According to research by Myers & Majluf (1984) Trade-off Theory states that companies determine the optimal level of cash holdings by comparing the marginal costs and marginal benefits of holding cash. Opler et al. (1999) in their research stated that the benefits of holding cash basically depend on two motives, namely the transaction cost motive and the prevention motive. Trade-off Theory assesses cash holding at an optimal level by considering the costs incurred with the benefits provided to the company.

Cash Holding. Andika (2017: 1486) states that cash holding is a form of liquid asset in the form of a certain amount of cash. The cash is stored in petty cash, cash registers, or accounts in banks and money markets. The cash can be used by the company for various operational purposes in the form of cash and can be disbursed at any time if the cash is needed.

Profitability. According to Munawir (2014: 33) profitability is the ability of a company to generate profit or profit during a certain period. The profitability of a company can be measured by the ability to use its assets productively, namely by comparing the profit earned with the total assets or total capital in a period in the company. Gitman (2015) in his research states that profitability is the relationship between income and costs resulting from the use of company assets, both current and fixed assets. Based on the above definition, it can be concluded that profitability is the result of the

policies and decisions taken by the company as well as the relationship between the income and costs generated by the company and the company's assets in carrying out production activities.

Growth Opportunity. Opler et al. (2011: 760) found that companies that hold small amounts of cash are generally companies that have good growth opportunities, because they need to meet investment needs when needed. According to Andika (2017: 1485) companies with high growth opportunities will use liquid assets as collateral to reduce the possibility of financial difficulties and take good investment opportunities first when external financing is more expensive. According to Pecking Order Theory, a large growth opportunity will motivate companies to take policies by preferring high cash holding for investment opportunities. Meanwhile, according to William & Fauzi's research (2013) growth opportunity is the company's opportunity to invest in the future by utilizing its asset wealth. In general, a company wants the availability of cash to meet the needs of investment projects that benefit the company in the future. This is the reason for the company, that having assets in liquid form will be more profitable.

Leverage. According to Cashmere (2017: 113) the leverage ratio is a ratio used to measure the extent to which a company's assets can be financed with debt. Leverage shows the proportion of the use of debt to finance its investment (Sartono, 2010: 120). Leverage as a tool to measure how much the company depends on creditors in financing assets. Companies with high leverage levels have a high level of dependence on external loans to finance their assets, while companies with low leverage levels of corporate funding come from their own capital (Darmadji and Fakhrudin, 2011: 175). In accordance with Pecking Order Theory, cash holdings must be reduced by leverage, because if the funds generated internally are not enough the company will use its liquid reserves before issuing debt. Jensen (1986) in his research states that payments in the form of interest can reduce management resources, thereby reducing the power of managers and increasing the possibility of monitoring by the capital market.

Firm Size. According to Brigham & Houston (2011: 4) company size is a large/small scale of companies that can be classified based on the size of revenue, total assets and total equity. Company size is a size scale that is seen from the total assets of a company or organization that combines and organizes various resources with the aim of producing goods or services for sale. According to research by Sri et al. (2013) firm size is a scale that determines the size of the company through various means such as revenue size, total assets, and total capital. The larger the size of revenue, total assets, and total capital will reflect the stronger the company's condition.

The framework in this study uses a chart as shown in the following figure:

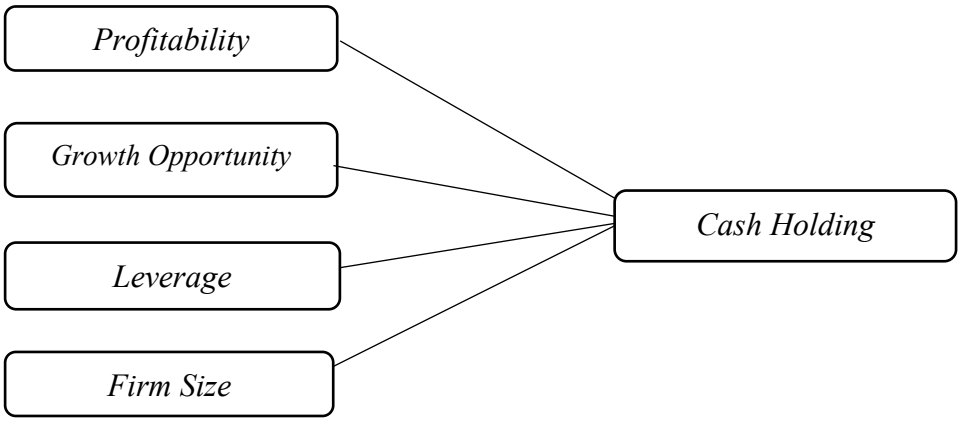

Figure 1. Theoretical framework

Based on the theoretical framework, a hypothesis can be formulated:
H_1: Profitability has an effect on cash holding.
H_2: Growth Opportunity has an effect on cash holding.
H_3: Leverage has an effect on cash holding.

H_4: Firm Size has an effect on cash holding.

METHODS

The objects in this study consist of dependent variables and independent variables. The dependent variable of this study is cash holding, while the independent variables of this study are profitability, growth opportunity, leverage, and firm size. The subject of this research is manufacturing companies in the food and beverage sub-sector industry listed on the IDX for the 2019-2022 period. 18 sample companies were obtained during the four years of observation (2019-2022) so that there were 72 samples. The samples were collected based on purposive sampling method with the following criteria: 1. Manufacturing companies in the food and beverage subsector industry sector listed on the IDX publish annual reports and financial data consistently in 2019-2022, 2. Manufacturing companies in the food and beverage subsector industry sector that did not experience losses during the 2019-2020 period, 3. Manufacturing companies in the food and beverage subsector industry sector have the information needed in the study including cash holding, profitability, leverage, growth opportunity, and firm size, and 4. The annual report period of manufacturing companies in the food and beverage subsector industry sector ends on December 31.
Cash holding according to Ogundipe et al. (2012) is calculated by the following formula:

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

The independent variables used are profitability, growth opportunity, leverage, and firm size. This study uses ROA to measure the level of profitability, which shows the company's effectiveness in managing assets both from its own capital and from loan capital. This variable can be measured using the formula:

$$\text{ROA} = \frac{\text{Profit After Tax}}{\text{Total Assets}}$$

Growth opportunity is measured using the quotient between the difference in the value of total assets in the current year and total assets in the previous year with total assets in the current year. Growth opportunity can be calculated by the formula:

$$\text{Growth Opportunity} = \frac{\text{Total Assets Year i} - \text{Total Assets Year i}-1}{\text{Total Assets Year i}}$$

One indicator of leverage is the debt to asset ratio (DAR). DAR can be calculated using the formula (Weygandt et al., 2015: 729):

$$\text{DAR} = \frac{\text{Total Liability}}{\text{Total Assets}}$$

According to Gill and Shah (2012: 73), company size is measured by the natural logarithm (Ln) of the company's average total assets. The formula used to measure this variable is:

$$\text{Firm size} = \text{Natural log of Total Assets}$$

In this study, the test tools used include descriptive statistical analysis, classical assumption test consisting of normality test, multicollinearity test, autocorrelation test, and heteroscedasticity test. Furthermore, multiple linear regression analysis and hypothesis testing are carried out which consists of simultaneous test (F test), partial test (t test), test the coefficient of determination (adjusted R^2).

RESULTS AND DISCUSSIONS

Descriptive Statistical Analysis. Descriptive statistical results for each variable used in this study can be seen in table 1.

Table 1. Descriptive Statistics Results

Variable	N	*Minimum*	*Maximum*	*Mean*	Std. Deviasi
Profitability	72	,00011	,22287	,0884181	,05715087
Growth Opportunity	72	-,21872	,88181	,1040577	,15746058
Leverage	72	,02106	,80595	,3543004	,17667479
Firm Size	72	26,24650	32,82638	28,8443496	1,68868449
Cash Holding	72	,00034	,59203	,1388608	,13305302

Source: Secondary data processed by the author, 2023

In each of these variable elements after being analyzed, they have different minimum, maximum, mean, and standard deviation values, namely: PR variable with a sample size of 72, has a minimum value of 0.00011 and a maximum of 0.22287 with an average of 0.884181 and a standard deviation of 0.05715087. The GO variable has a minimum value of -0.21872 and a maximum of 0.88181 with an average of 0.1040577 and a standard deviation of 0.15746058. The LV variable has a minimum value of 0.02106 and a maximum of 0.80595 with an average of 0.3543004 and a standard deviation of 0.17667479. The FS variable has a minimum value of 26.24650 and a maximum of 32.82638 with an average of 28.8443496 and a standard deviation of 1.68868449. The CH variable has a minimum value of 0.00034 and a maximum of 0.59203 with an average of 0.1388608 and a standard deviation of 0.13305302.

Classical Assumption Test. The classic assumption test consists of normality test, multicollinearity test, autocorrelation test, and heteroscedasticity test. The normality test used in this study is the central limit theorem (CLT). value Asymp. Sig. (2-tailed) of 0.026 which is smaller than the significance value of 0.05, so the data is not normally distributed. The number of observations of 72 means that the sample size is greater than 30. This means that the data can be said to be normally distributed and can be referred to as a large sample. The multicollinearity test shows that the tolerance value for each independent variable is greater than 0.10 (PR of 0.764; GO of 0.948; LV of 0.755; FS of 0.915) and the VIF value is less than 10 (PR of 1.309; GO of 1.055; LV of 1.324; FS of 1.093), so it can be concluded that there is no multicollinearity problem between the independent variables in the regression model. Autocorrelation test with a Durbin Watson value of 1.874 where the data is located in an area where there is no autocorrelation, so it can be concluded that there are no autocorrelation symptoms in the regression model used. The heteroscedasticity test in this study uses the Spearman-Rho test with the probability value of all variables greater than 0.05, so it can be concluded that no heteroscedasticity occurs.

Hypothesis Test. The simultaneous test (F test) shows that the probability value of 0.008 is smaller than the significance level ($\alpha = 0.05$) and the Fcount value (3.794) is greater than Ftable (2.507), so it can be concluded that all independent variables simultaneously affect the dependent variable. This also shows that the regression model used is fit. The partial test results (t test) in this study can be seen in table 2.

Table 2. t-test results

Variable	t_{hitung}	t_{tabel}	Sig.	Std. Sig.	Description
Profitability	2,047	1,668	0,045	0,05	Significant
Growth Opportunity	-1,232	1,668	0,222	0,05	Insignificant
Leverage	-1,748	1,668	0,085	0,05	Insignificant
Firm Size	,735	1,668	0,465	0,05	Insignificant

Source: Secondary data processed by the author, 2023

The PR variable is known to have a tcount value (2.047) greater than the t table (1.668) and a significance value of 0.045 smaller than α = 0.05, so it can be concluded that PR has a significant effect on cash holding. The GO variable is known to have a tcount value (-1.232) smaller than the t table (1.668) and a significance value of 0.222 greater than α = 0.05, so it can be concluded that GO has no significant effect on cash holding. The LV variable is known to have a tcount value (-1.748) greater than the t table (1.668) and a significance value of 0.085 greater than α = 0.05, so it can be concluded that LV has no significant effect on cash holding. The FS variable is known to have a tcount value (.735) smaller than the t table (1.668) and a significance value of 0.465 greater than α = 0.05, so it can be concluded that FS has no significant effect on cash holding. The coefficient of determination (Adjusted R2) value is 0.136. This indicates that 13.6% of cash holding is influenced by the independent variables (PR, GO, LV, and FS) and the remaining 86.4% is influenced by other variables outside those studied.

DISCUSSIONS

Effect of PR on Cash Holding

PR has an effect (statistically significant) on cash holding. This shows that there is a relationship between PR and cash holding. Affected because profitability is a very important indicator for investors, namely to measure the company's ability to earn net income. Companies with high profitability will tend to use their cash balances to fulfill investment opportunities, so that the availability of cash in the company becomes less. The results of this study are in line with research conducted by Ridha (2019), Sari and Ardian (2019), Guizani (2017) which states that PR affects cash holding.

Effect of GO on Cash Holding

GO has no effect (statistically insignificant) on cash holding. These results indicate that companies with high growth opportunities will encourage companies to hold more cash to finance their investment opportunities. The unfavorable distribution of growth opportunity data allows for uncertainty in the investment opportunities that the company has. This uncertainty causes companies that previously made cash as an insurance policy to finance existing investment opportunities will tend to use cash for other interests that are more profitable for the company. The results of this study are in line with research conducted by Bigelli and Vidal (2010), Sanjaya and Widiasmara (2019) and Elbert and Iskak (2020) which state that GO has no effect on cash holding.

Effect of LV on Cash Holding

LV has no effect (statistically insignificant) on cash holding. This shows that leverage reflects the company's ease of obtaining external funds. This causes companies with high leverage to tend to hold cash in not too high an amount because it is considered to provide low returns compared to making investments. Statistically it can be stated that the ease or the higher the company's ability to get a loan / leverage will reduce the amount of cash that must be provided by the company and vice versa, the smaller the leverage, the company must provide a larger cash fund. The results of this study are in line with research conducted by Thu and Khuong (2018), Sanjaya and Widiasmara (2019), and Jason and Viriany (2020) which show that the LV variable has no significant effect on cash holding.

Effect of FS on Cash Holding

FS has no effect (statistically insignificant) on cash holding. This shows that statistically large company size is inversely proportional to the provision of cash funds in the company, the larger the size of the company, the smaller the cash funds provided by the company and vice versa. According to trade-off theory, cash holdings and company size should have an inverse relationship because larger companies can benefit from economies of scale. The company will try to determine the optimal amount of cash holding, taking into account the benefits and costs arising from its use. The larger the firm size, the

more the company tries to maintain its optimal cash holding, because errors in determining cash holding will affect the value of the company. The results of this study are in line with research conducted by Gill & Shah (2012), Loncan and Caldeira (2014) and Hilgen (2015) which show that the FS variable has no significant effect on cash holding.

CONCLUSIONS

Based on the results of data testing in this study, it shows that PR has an effect (statistically significant) on cash holding, so that H_1 of this study is accepted. GO has no effect (statistically insignificant) on cash holding, so H_2 of this study is rejected. LV has no effect (statistically insignificant) on cash holding, so H_3 of this study is rejected. FS has no effect (statistically insignificant) on cash holding, so H_4 of this study is rejected.

The limitations of this study are: 1. Only uses four independent variables, namely PR, GO, LV, and FS. In addition to these factors, there are still many factors that can explain cash holding, so this study has not explained more fully the other variables that can affect cash holding. 2. The sample used is only limited to manufacturing companies in the food and beverage sub-sector industry, so the conclusions obtained in this study cannot be generalized to all sectors on the Indonesia Stock Exchange. 3. The observation period is only four years, namely 2019-2022, so that the influence of the independent variables cannot be seen over a longer period of time and to sharpen the results of statistical tests it is expected to expand the research object.

Based on the results and limitations above, several suggestions can be submitted that can be taken into consideration in further research, namely: 1. Future research is expected to add other independent variables that might affect the company's cash holding, for example net working capital, cash flow, and dividend payment. 2. Future research is expected to expand the research object to other sectors, so that the research results are useful for parties who need this information. 3. Future research is expected to add or extend the research period, so that it can see trends that occur in the long term.

Based on the research results and discussion implications can be put forward for the company, the level of growth opportunities positive effect on the level of cash holding in the company. Companies with high growth opportunities will make the company hold cash in large amounts. in large quantities as well. This is done because the need for financing needs that increase makes the company must have enough cash to fund it. In this case the company does not use external funding sources.

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