DETERMINANTS OF CASH HOLDING FROM COMPANIES LISTED IN JAKARTA ISLAMIC INDEX

Savilla Azzahra, Puji Sucia Sukmaningrum*
Sharia department, Faculty of Economics and Business, Airlangga University.

Abstract

Cash Holding has a crucial role in every firm. There is a lot of consideration why companies keep their cash on hand. These situations depend on the motive of the firm and the condition that they have faced. This study aims to determine the effect of leverage, liquidity, growth opportunity, and firm size on firm cash holding. The sample of this study is listed firms from Jakarta Islamic Index (JII) from 2012 to 2019. The research method is quantitative, using Random Effect Model (REM). The number of observations reaches 80 data from the listed firm in Jakarta Islamic Index from 2012-to 2019. Sources of data were provided in the annual financial report from Indonesia Stock Exchange (IDX) or the official website. This study concludes that leverage and firm size have a negative significant effect on cash holding while growth opportunity and liquidity have an insignificant negative effect on firm cash holding.

Keywords: *Growth Opportunity, Leverage, Liquidity, Firm Size, Cash Holding*

1. INTRODUCTION

The firm policy can be generated from the components involved in the firm itself. The elements contained in the firm can be sorted from short-term to long-term. Based on an empirical and theoretical basis, one of the crucial policies comes from liquidity management. Companies that act as agents must allocate cash effectively and efficiently to generate maximum welfare for stakeholders. Cossin and Hcriko (2004) explain that cash ownership will result in optimal investment and avoid deficit price problems, but excess cash holdings are also considered inefficiencies.

When a firm has a low level of cash holdings, liquidity risk will arise. Sourced from Susanto (2019), in 2018, the state court found 411 cases with a total of 297 PKPU with 194 bankruptcy cases. Followed in 2019, the number of PKPU cases reached 425 cases and bankruptcy cases increased to 124 cases. If we look at the case, the number of companies that are unable to pay off their obligations tends to increase from year to year. An incident like this can be a consideration for agents to pay attention to liquidity management or cash management. Bankruptcy often occurs due to the inability to pay off obligations due to an unwillingness to own cash.

Cash holding or cash ownership is explained by Gill and Shah (2011), namely money that is readily available for investment in physical assets and distribution to investors. With sufficient cash holdings, the firm can avoid the arrival of risks someday. Allah has said in Al Qur'an surah Al-Hasyr verse 18 which means: "*O you who believe, fear Allah and let each one pay attention to what he has done for the next day (hereafter); and fear Allah, Allah knows best what you are doing*. " (Surah Al-Hasyr (59:18), Interpretation of the Indonesian Ministry of Religion).

The verse contains a message to care about what has been done for tomorrow. This verse is in line with one of the firm's motives for cash holding, namely the precaution motive. Based on the research of Ali et al. (2016), the precaution motive reflects the idea that companies keep cash on the basis that they will fulfill future obligations when something is unpredictable. Apart

*Corresponding author. *Email address:* pujisucia@feb.unair.ac.id

Published by AFEBI Islamic Finance and Economic Review

from precaution motives, according to Shabbir et.al (2016) companies also have transaction motives. The purpose of this motive is cash storage for short-term needs.

The firm's motive is of course related to the cash holding theory. The cash holding theory is closely related to the trade-off and pecking order theory. The trade-off theory recommends that companies consider the optimal level of cash holding by taking into account the marginal costs and costs of asset liquidity (Al-Najjar and Belghitar, 2011). Next up is the pecking order theory. This theory suggests a function of cash as a buffer for retained earnings and investment needs (Myers, 1984).

In practice, cash holding is used as a tool for investment, daily operational expenditures, and even business expansion. This study seeks to reveal the factors that influence cash holding, namely leverage, growth opportunity, liquidity, and firm size. Leverage is a ratio to measure the amount of debt financed by assets (Kashmir, 2019). In addition to leverage, the growth opportunity is symbolized by the firm's opportunity to achieve growth. This ratio explains the firm's ability to maintain its economic position amidst economic growth and the business sector. Liquidity is used as a variable that reflects the firm's ability to pay off short-term obligations. Meanwhile, firm size can be seen from the value of equity or the logarithm of total assets owned by the firm (Riyanto, 1995).

Previous studies examined the determinants of cash holdings in leading countries such as Switzerland (Drobetz & Grüninger, 2007), and Turkey (Uyar and Kuzey, 2014). This study focuses on the state of Indonesia, especially with a sample of companies recorded in the Jakarta Islamic Index for the period 2012-2019.

In addition, some inconsistencies in this research are interesting to explore, especially for application in Indonesia. In leverage and cash holding, Shabbir (2016) reveals a negative relationship, but Gill and Shah (2012) say the opposite results. Furthermore, in a study of firm size in Europe, Ferreira, M.A., & Vilela (2004) argued that firm size is negatively correlated with cash holding. However, in Ali and Ullah's research (2016) in Pakistan, firm size has a positive relationship with cash holding. Furthermore, in a study of firm size in Europe, Ferreira, M.A., & Vilela (2004) argued that firm size is negatively correlated with cash holding. However, in Ali and Ullah's research (2016) in Pakistan, firm size has a positive relationship with cash holding.

2. LITERATURE STUDY

a. Trade-Off Theory

This theory explains that the higher the firm makes debt funding, the higher the risk it will receive. Modigliani and Miller (1958, 1963), stated that the essence of the sacrifice of the cost of debt is the benefit output for the firm. A balance will be achieved if there are benefits and costs of debt in kind.

b. Pecking Order Theory

Pecking order is a firm choice regarding funding preferences to maximize shareholder welfare. This theory was first developed by Myers and Majluf (1984), that there are all steps a firm can take to expand funding. Internal funding consists of issuing securities from internal funds, retained earnings, then low-risk debt, and finally equity. Meanwhile, external funding is based on an internal funding deficit.

c. Cash Holding

Kieso and E. Donal in the book Intermediate Accounting explain cash is a liquid asset, a standard exchange media account, and an accounting measurement basis and all its items. Cash

holding is defined as cash on hand or readily available for investment in physical assets and distribution to investors. The Keynesian postulation regarding the firm's motive for saving cash is as follows (Isshaq & Bokpin, 2009): Make transactions (transactions), Pay unexpected expenses (precautionary), Needs of speculation (speculative), Daniel and Sibilkov (2009).

d. Leverage

According to Kashmir (2012: 151), Leverage or solvency is a ratio that is used to measure the number of firm assets that are financed by debt. This comparison can be read as "how much debt expense incurred by the firm compared to assets". The majority of studies find that companies with high levels of leverage do not have a lot of cash reserves. In previous research, Opler et al. (1999); Ferreira & Vilela (2004); Ozkan & Ozkan (2004); Chen (2008); and Drobetz & Grüninger (2007) found no linear association between these two variables. Leverage and cash holding have been studied in the case of Turkey by Uyar and Kuzey (2014). The results reveal that leverage hurts the cash rate. This shows because companies with high leverage deal with financial difficulties and go bankrupt, and therefore they are expected to have more cash. Consistent with the majority of studies, the hypothesis used is that there is a relationship between leverage and cash holding.

H1: Leverage has a negative effect on Cash Holding

e. Liquidity

Companies that can pay back their obligations are said to be in a liquid state. According to Simamora in the book Management Accounting (2001: 524), liquidity is the firm's ability to meet its obligations in the near future. Meanwhile, according to Riyanto (1995), liquidity is the firm's ability to fulfill its financial obligations which must be fulfilled immediately. Companies with smaller assets tend to have fewer cash reserves. The impact companies with more liquid assets are expected to have fewer cash deposits. According to Ferreira and Vilela (2004), their research shows that if a firm faces a cash shortage, its liquid assets can be easily liquidated so that they can be used as a cash substitute. Therefore, several studies have found an opposite relationship between liquidity and cash holdings (Gill & Shah, 2012).

H2: Liquidity has a negative effect on Cash Holding

f. G*rowth Opportunity*

Growth opportunity is the opportunity for a firm to develop in the future (Brigham and Houston, 2001). Companies with high growth characteristics will try to increase their fixed assets so that the firm needs more funds in the future with the hope of an increase in profits. Therefore, companies with great opportunities tend to hold profits and add more funding from debt. Myers and Majluf (1984), state that the emergence of information asymmetry will have more impact on large companies. Therefore, companies with high growth rates will certainly face higher external funding costs such as agency fees and bankruptcy costs. As a result, higher expected costs imply that the firm has a high chance of increasing cash holdings in order to prevent financial stress and bankruptcy.

H3: Growth Opportunity has a positive significance on Cash Holding

g. Firm Size

Firm size describes the size of a firm. Brigham and Houston (2010:4) firm size is defined as an indicator of the size of the business that can be predicted not only from total assets but also from total sales, total profits, and others. Ozkan and Ozkan (2004) argue that large-scale companies have more opportunities to obtain external funding. Meanwhile, small companies.

Published by AFEBI Islamic Finance and Economic Review

tend to suffer related agency fees or other high financial costs. This is due to the lack of access to financial markets, which results in high costs. Therefore, the hypothesis is that the bigger the firm, the more cash holdings. This hypothesis is in line with previous research conducted by Bates et al. (2009); Kim et al. (1998); Kim et al. (2011); Ogundipe et al. (2012); and Opler et al. (1999).

H4: Firm size has a positive effect on Cash Holding.

h. Jakarta Islamic Index (JII)

The Jakarta Islamic Index is a sharia stock index developed by the Indonesia Stock Exchange and PT. Danareksa Investment Management. Based on the official explanation from IDX, the Jakarta Islamic Index is a sharia stock index launched by the IDX in 2000. The constituency of the Jakarta Islamic index only consists of the 30 most liquid sharia stocks listed on the IDX. IDX determines the selection of Islamic stocks twice a year in May and November.

3. RESEARCH METHOD

Based on the understanding of Sugiyono (2013), this quantitative method is called a positivistic method because it is based on the philosophy of positivism. . This study uses the regression results of the random effect model. The random effect model is selected after passing several stages of the model suitability test. Based on the Hausman and Lagrange multiplier tests, the random effect is the best model for this study because it has been proven through standard assumptions. The use of a random effect model is accessed through the Gretl application to test the determinant influence of cash ownership in companies listed on the Jakarta Islamic Index for the period 2012-2019.

$$CSHit = \beta 0 + \beta 1FSZit + \beta 2GTHit + \beta 3LEVit + \beta 4LQDit + eit$$

Information:

CSHit: Cash holding firm i in year t, β0: Constant coefficient

β1- β5: The coefficient of each variable

FSZit: Size of firm i in year t

LEVit: Leverage firm i in year t

LQDit: The liquidity of firm i in year t

GTHit: Growth opportunity for firm i in year t

eit: The coefficient of error

A dependent variable is a variable with the effect of other variables. Cash holding which is proxied by the cash ratio represents the dependent variables. Independent variables aim to detect effects that impact the dependent variable. There are leverage, growth opportunity, liquidity, and firm size .are the proxy of this research variable.

Table 1. Formula of ratio

Dependent **Variable**	**Formula of ratio**
Cash Holding	Cash and equivalents / total assets
***Independent* Variables**	
Leverage	Total debt / total assets

Growth Opportunity	Market price per share/book value per share
Liquidity	Current assets- Current liabilities and total cash / total assets
Firm Size	Ln (total assets)

The type of data used is secondary data. The data source used is based on the firm's 2012-2019 annual financial statements that have met the sample criteria. The data was obtained from www.idx.co.id and the official website of each firm. The population is the accumulation of all samples used. The population used in this study is the Jakarta Islamic Index 30. The technique used in sample selection is purposive sampling, which means the technique of determining the sample with consideration (Sugiyono, 2013).

According to Subanti and Hakim (2014) in the Econometry book, panel data has several advantages, namely providing more data and can produce a greater degree of freedom due to the combination of time series and cross-sections. Some of the advantages of using panel data have implications for the imperative to use classical assumption tests (Verbeek 2000; Gujarati, 2003; Wibisono, 2005).

4. RESULTS AND DISCUSSION

The Jakarta Islamic Index is a sharia stock index that is filtered with the highest market capitalization criteria on the stock exchange. This index was first established in 2000. This index consists of the 30 most liquid stocks and has the largest market share in each period. The sample of this study consisted of 10 companies for 8 years so it had 80 observations. This section aims to describe the description of each variable. The description of the variables listed in Table 4.1 shows the minimum, maximum, mean, median, and standard deviation figures. The independent variables of this study are cash holding and the dependent variable is growth opportunity (GTH), leverage (LEV), liquidity (LQD), and firm size (SIZE).

Table 2. Statistical Descriptive Table

	CH	GTH	LEV	FirmSize	Liquid
Mean	0,13459	7,7393	0,42965	31,447	0,020526
Median	0,12572	2,7884	0,42041	31,282	0,01703
Minimum	0,018013	0,74009	0,15715	29,874	-0,27851
Maximum	0,30892	82,444	0,74421	33,495	0,30908
Std.	0,072252	15,564	0,1347	0,99557	0,13639
Dev.	0,53684	2,011	0,31352	0,031658	6,645
C.V.	0,64581	3,2081	0,27102	0,39116	0,065226
Skewness	-0,06201	9,4509	-0,03423	-0,99875	0,22297

Source: Gretl Output Results

This table illustrates the distribution of numbers between variables. Mean means the average value of a variable, the median is the middle value of the variable, and the minimum and maximum are the lowest and highest values of each variable. This analysis presents the results of the influence between the dependent variable on cash holding and the independent variables, namely leverage, liquidity, growth opportunity, and firm size. This test processing is carried out with a fixed-effect model. The software used is Gretl for windows.

In selecting the right regression model, this research goes through several test stages. This research data set passed the common effect model, fixed-effect model, and random effect model testing. The three models have been compared again through the chow test (test between

Published by AFEBI Islamic Finance and Economic Review

cem and fem), Hausman test (test between brake and fem), and Lagrange multiplier (test between cem and brake). Based on this series of tests, the most appropriate model to use is the random-effects model.

Table 3. Results of the Random Effect Model analysis

Random-effects (GLS), using 80 observations
Included 10 cross-sectional units
Time-series length = 8
Dependent variable: CH

	Coefficient	*Std. Error*	*z*	*p-value*	
const	1,32933	0,432021	3,077	0,0021	***
GTH	−0,000744314	0,000688753	−1,081	0,2798	
LEV	−0,228268	0,0948784	−2,406	0,0161	**
FirmSize	−0,0345832	0,0138217	−2,502	0,0123	**
Liquid	−0,163770	0,107266	−1,527	0,1268	

Mean dependent var	0,134587	S.D. dependent var	0,072252
Sum squared resid	0,337274	S.E. of regression	0,066617
Log-likelihood	105,2403	Akaike criterion	−200,4807
Schwarz criterion	−188,5705	Hannan-Quinn	−195,7056
rho	0,292294	Durbin-Watson	1,187267

Joint test on named regressors -

Asymptotic test statistic: Chi-square (4) = 14,8753, with p-value = 0,00496695

* at the 5% level of significance

Source: Gretl Output Results

The table above provides some key information on the effect of each variable regarding the t-test, F test, and the coefficient of determination. The t-test is used to see the partial effect where the level of significance reflects the strength of a variable. Variables that have a probability below the level of significance mean that they have a strong influence on the independent variable.

The dependent variables Leverage (LEV), Liquidity (LQD), Growth Opportunities (GTH), and firm size (FSZ) have different effects on cash holding. The next variable is growth opportunities (GTH) which have a coefficient of -0.00007 and a significance value of 0.2798. These results illustrate that growth opportunities have a negative and insignificant effect on cash holding. These results explain that H0 is accepted and H1 is rejected. In addition, the leverage variable (LEV) has a negative coefficient of -0.22 and a significance value of 0.0161 <0.05, which means that H1 is accepted while H0 is rejected. This explains that the effect of leverage can reduce cash holding and have a significant impact. On the other hand, the firm size variable has a negative coefficient of -0.03 with a significance level of 0.0123 <0.05, which means that H1 is accepted and firm size has a significant effect on cash holding. Finally, the liquidity variable (LQD) with a negative coefficient of -0.163 and a significance level of 0.126. This is not significant for cash holdings.

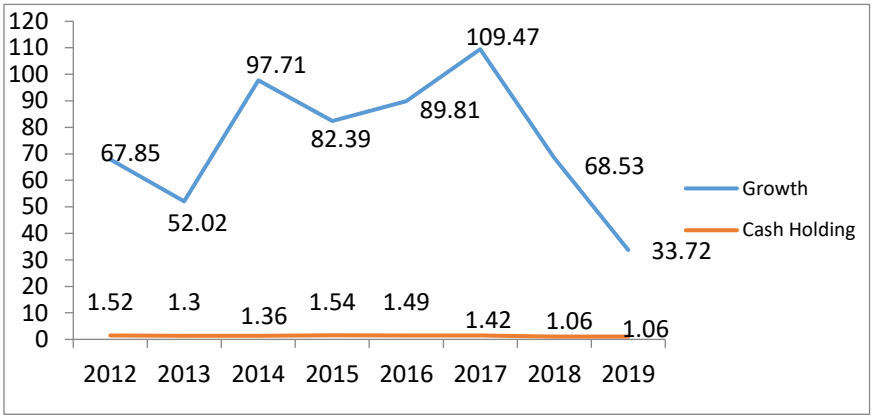
Published by AFEBI Islamic Finance and Economic Review

The coefficient of determination or R-square aims to see how much the cash holding factor can be explained by the independent variable. The total coefficient of determination is 0.33 where leverage, liquidity, growth opportunities, and firm size can explain the contribution to cash holding. The variability of cash holding can explain its effect on cash holding by 33% while 67% is explained by exogenous variables that are not included in this study.

The F test of this study has a probability value of 0.004 <0.05 where the test used is a representation of the simultaneous significance effect on cash holding. The results of significance confirm that each dependent variable has a simultaneous or simultaneous effect on the independent variable, namely cash holding.

The growth opportunity coefficient has a value of -0.0007 and has a significant level of 0.2798. The regression results confirm that there is no significant effect on cash holding.

Figure 1. Diagram between Growth Opportunity and Cash Holding



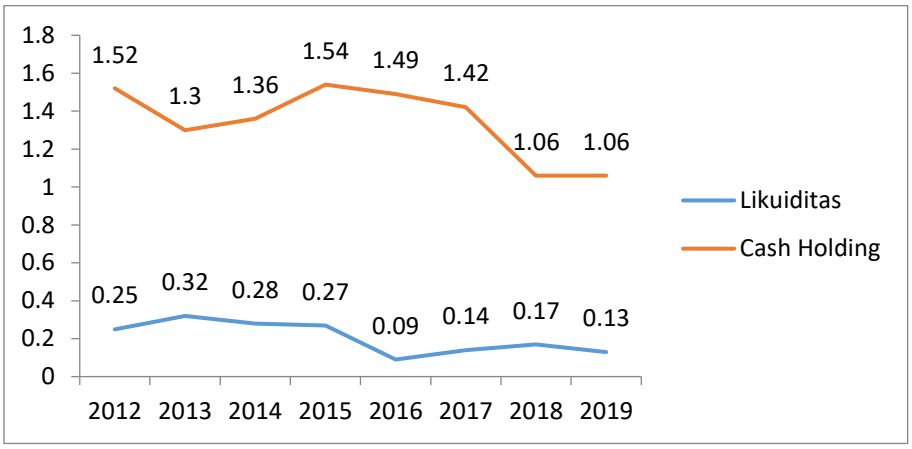
Growth Opportunity reflects that there is no significant effect on the sample companies. This result is supported by research in the country of Kenya by Nduati and Gregory (2015) and research in the country of Nigeria by Ogundipe (2012). In addition, Basheer (2014) states that growth opportunity has an insignificant effect on cash holding. Bigelli and Sánchez-Vidal (2012) show that companies will avoid using cash in investment opportunities. Market capitalization is defined as growth opportunities does not have a significant impact on cash. Market capitalization considered a reflection of the value of a firm does not reflect the amounts of cash holdings a firm has. Companies are more interested in investing funds than holding large amounts of cash.

The leverage variable is proxied by the debt-to-asset ratio which has a coefficient of -0.22 with a significance value of 0.0161 <0.05. This confirms that there is a negative influence between leverage and cash holding. There is an assumption that increasing debt will certainly reduce cash holdings from year to year. It is possible for the firm to have an obligation to provide cash funds as a payment of obligations that are due each year. This is what causes cash ownership to decrease. On the other hand, the results of this study indicate that there is a negative but insignificant effect. Consistent with the research of Opler (1999), Chen (2008), and Ozkan and Ozkan (2004) that the leverage variable has a negative result on cash holdings. Payable can be used as a substitute for cash and marketed securities. Riyanto, B. (2008). Base-A negative coefficient can also indicate that the cost of holding cash will be greater than that of issuing debt. Therefore, H1 is accepted with the result that leverage has a negative effect on cash holding.

Published by AFEBI Islamic Finance and Economic Review

The liquidity variable (LQD) with a negative coefficient of -0.16 and a significance level of 0.126. This variable does not have a significant effect on cash holding due to fluctuations throughout 2012-2019. The following is an overview of the liquidity ratios and cash ratios.

Figure 2. Diagram between Liquidity and Cash Holding



The existence of a pattern that tends to change illustrates that the effect of liquidity and cash holding does not have a significant effect. The regression results describe that there is no effect of current assets on cash holdings. The existence of current assets with different components has no effect on cash. In addition, data fluctuations between liquidity and cash holdings do not have a unidirectional pattern.

The firm size coefficient is -0.003 with a significance level of 0.0123 <0.05. This confirms that there is a negative influence between cash holdings and business size. Companies that have a large size tend to have an inverse comparison. Miller and Orr (1996) say that the demand for money can be influenced by the size of the firm and the scale of the firm's financial management. Fereira and Vilela (2004), Drobertz and Gruninger (2007), and Najjar and Belghitar (2011) say that firm size reflects a negative result on cash holdings. The sample firms have a firm size with a minimum of 29.8 and a maximum of 33.49. The sample firm with the minimum size has cash of as much as 2.44% while the firm with the maximum size has as much as 8.97% cash. In a firm with a minimum size, the firm keeps current assets at 53% and 45% in fixed assets. In addition, the characteristics of large companies are more interested in saving funds in current assets as much as 37.96% and 53% in fixed assets.

This range reflects that companies that have a large size have a preference for investing in fixed assets for expansion. The firm also balances its balance sheet by having new current assets store cash. The assumption is that the firm's desire to increase market share is a reflection that firm size has a negative effect on cash holdings.

5. CONCLUSION

This study tested 4 variables, namely leverage, liquidity, growth opportunities, and firm size on cash holding. Leverage has a significant and negative result because it is possible for the firm to pay off debt thereby reducing cash. On the other hand, liquidity also has an insignificant effect because companies tend to use current assets as a substitute for cash. Growth opportunities also provide negative but insignificant results, it is possible that an increase in market capitalization can increase or decrease cash. Firm expansion is useful for reaching new targets in order to increase profit, but the firm must sacrifice cash. The last variable is the firm

Published by AFEBI Islamic Finance and Economic Review

size which has a negative and significant effect. Companies that have a large size tend to have flat costs that can get funds that are not related to the size of the loan (Peterson, 2003).

This research is expected to facilitate parties for further recommendations such as Firm Managers and Academics. The firm needs to conduct a review related to the additional debt policy because it can reduce cash. In addition, companies also need to pay attention to the fact that the larger the firm the more they pay attention to cash holdings. Cash ownership also needs to be balanced with other assets and liabilities in order to avoid bankruptcy and difficulty in paying current liabilities.

Recommendations for further research are the addition of factor aspects that can add to the explanation of determining cash ownership. One of the researchers' recommendations is the addition of the dividend payment ratio, net working capital, and the CEO board structure. On the other hand, the addition of aspects in terms of sharia can also be a concern. Variables that can be used such as sharia compliance, good governance, zis ratio, and so on are related to sharia. The last one is a factor in terms of macroeconomics that is also interesting to research and can be taken into consideration. Examples of variables that can be used for future research are inflation, interest rates, etc.

Reference

Ali, Shaukat., & Ullah, M. (2016). Determinants of Corporate Cash Holdings "A Case of Textile Sector in Pakistan." International Journal of Economics & Management Sciences, 05 (03). https://doi.org/10.4172/2162-6359.1000334

Basheer, M.F. (2014). Impact of Corporate Governance on Corporate Cash Holdings: An empirical study of firms in the manufacturing industry of Pakistan. International Journal of Innovation and Applied Studies; Rebates 7 (4), 1371-1383.

Baskin, J. (1989). An Empirical Investigation of the Pecking Order Hypothesis. Financial Management. Vol 18., 26-35.

Bigelli, M., & Sánchez-Vidal, J. (2012). Cash Holdings In Private Firms. Journal Of Banking And Finance, 36 (1), 26–35

Brigham, E. F. (2006). Fundamentals of Financial Management: Fundamentals of Financial Management (10th ed). Jakarta: Four Salemba.

Cossin, D. a. (2004). The benefits of holding cash: a real options approach. Vol. 30 No. 5, pp. 29-43.

Chen, K. C. W., and B. K. Church. 1992. "Default on Debt Obligation and the Issuance of Going-Concern Report". Auditing: A Journal of Practice & Theory, Fall. 30 - 49

Denis, D. J., and V. Sibilkov. 2010. Financial constraints, investment, and the value of cash holdings. Review Finance Study 23: 247-269

Drobetz, W., & Grüninger, M. C. (2007). Corporate cash holdings: Evidence from Switzerland. Financial Markets and Portfolio Management, 21 (3), 293–324. https://doi.org/10.1007/s11408-007-0052-8

Fatwa DSN / 124 / DSNMUI / XI / 2018

Ferreira, M. A., & Vilela, A. S. (2004). Why do firms hold cash? Evidence from EMU countries. European Financial Management, 10 (2), 295–319. https://doi.org/10.1111/j.1354-7798.2004.00251.x

Gill, A., & Shah, C. (2011). Determinants of Corporate Cash Holdings: Evidence from Canada. International Journal of Economics and Finance, 4 (1), 70–79. https://doi.org/10.5539/ijef.v4n1p70

Published by AFEBI Islamic Finance and Economic Review

Isshaq, Z. & Bokpin. (2009). Corporate liquidity management of listed firms in Ghana. Asia - Pacific Journal of Business Administration, 1 (2), 189-198.

Ministry of Religion. Cited February 24, 2021, from https://tafsirweb.com/10816-quran-surat-al-hasyr-ayat-18.html. Ministry of Religion

Myers, Stewart C .; Majluf, Nicholas S. (1984). "Corporate financing and investment decisions when firms have information that investors do not have". Journal of Financial Economics. 13 (2): 187–221. doi: 10.1016 / 0304-405X (84) 90023-0. hdl: 1721.1 / 2068

Nduati, K.S, Gregory.M. (2015). Determinants of corporate cash holdings: evidence from private manufacturing firms in Kenya. International Journal of Advanced Research in Management and Social Sciences 4 (6).

Ogundipe, et.al (2012). Cash Holding and Firm Characteristics Evidence From Nigerian Emerging Market. Journal of Business, Economics & Finance (2012), Vol. 1 (2).

Opler, T., Pinkowitz, L., Stulz, R. et al. (1999) The determinants and implications of corporate cash holdings, Journal of Financial Economics, 52, 3–46.

Ozkan, A., & Ozkan, N. (2004). Corporate cash holdings: An empirical investigation of UK companies. Journal of Banking and Finance.

Simamora, Henry. (2012), Management Accounting. Jakarta: Star Gate Publisher