Institutional Ownership, Board Size, Growth Opportunities, Net Working Capital and Cash Holding

Christy Valent[1] Yanti Yanti[1*]

[1]*Faculty of Economics and Business, Universitas Tarumanagara, West Jakarta - 11470, Indonesia*
[*]*Corresponding author. Email: yanti@fe.untar.ac.id*

ABSTRACT
This study aims to investigate empirically the effect of institutional ownership, board size, growth opportunities, and net working capital toward cash holding, utilizing firm size and cash flow ratio as control variables on manufacture industry listed on the Indonesia Stock Exchange during 2016 to 2019 period. This study's valid data consisted of 51 companies and the sample was chosen using purposive sampling approach. The data in this study is processed with Eviews 12 and Microsoft Excel 2016. According to the findings, board size and net working capital have a significant positive effect on cash holding, institutional ownership has insignificant positive effect on cash holding and growth opportunities has insignificant negative effect on cash holding.

Keywords: Institutional Ownership, Board Size, Growth Opportunities, Net Working Capital, Firm Size, Cash Flow Ratio, Cash Holding

1. INTRODUCTION

In 2007, America was hit by the subprime mortgage crisis and the impact caused the global economic crisis in 2008. Many bankruptcies occurred so that external sources of investors disappeared on a large scale, cash holding levels were low and long-term debt increased. The company is unable to pay for its operational activities, expensive raw materials, paying for labor, etc. Phenomena such as bankruptcy and suspension of debt payment obligations in Indonesia companies indicate that many companies experience financial difficulties. Some of the companies were declared bankrupt because they were unable to pay their debt obligations, so they needed to sell their collateral assets such as land, buildings, Building Use Rights Certificates, machinery, and equipment.

These incidents were caused by various factors, one of which was that they didn't have enough cash holding to pay their debts, which led them to financial difficulties such as suspension of debt payment obligations, being unable to pay operational activities, and finally bankrupt. Therefore, it is important to determine the optimal value of cash holding to avoid the company's financial risks. Optimal cash holding is cash that is maintained by the company within a certain amount, which is not excessive or insufficient [1]. Holding cash can provide several advantages and disadvantages. The optimal amount of cash can provide benefits such as trade discounts, maintaining the company's credit rating, and financing unexpected expenses [2]. Holding cash can reduce the possibility of financial difficulties, implement investment policies, minimize costs for obtaining external funds nor liquidating existing assets [3]. Cash holding can be an alternative fund if the company has difficulty using external funds, such as an unstable bond interest rate.

Holding excessive amounts of cash can also lead to risks or losses, such as a decrease in the exchange rate for goods and services, foreign exchange, as well as causing idle funds so that the rate of return is lower than investing in real assets and the company cannot achieve an optimal profit level. optimal. However, if there is too little cash, the company will be deemed to have difficulty fulfilling

its obligations due to poor liquidity, causing doubts to investors, and causing a bad image for the company. Determining the cash holding at the optimal level is important for the company and attracts the attention of executives, analysts, and investors.

Each company has a different amount of cash holding because it has different needs. Institutional ownership, board size, growth opportunities, and net working capital have all been studied in previous studies to find the determinants that affect cash holding. Institutional ownership refers to an institution's ownership of a company's stock. The larger the institutional ownership, the higher the transparency, resulting the information provided by the company is more open and will reduce the problem of information asymmetry. Institutional ownership and cash holding were found to have a significant negative relationship by Mohd et al. [4] and Christina and Ekawati [1].

The board of directors is in charge of cash management and corporate governance matters, so they can guide the company to save more money or cash. According to Mengyun et al. [5], Christian and Fauziah [3], Senjaya and Yadnyana [6], and Jamil, et al. [7], board size has a significant positive effect on cash holding.

Growth opportunities are a combination of future investment opportunities with tangible assets owned by the company. Companies with higher growth opportunities tend to save more cash in order to fund future investment opportunities. Marfuah and Zulhilmi [2] and Mesfin [8], stated that growth opportunities had a significant positive effect on cash holding.

Net working capital is a short term asset used by companies to fund their business operational activities without disturbing the company's liquidity. If the net working capital value is deficient or negative, it is likely that the company is experiencing liquidity issues so that the company will hold more cash. Shubita [9] and Mesfin [8] state that net working capital has a significant negative effect on cash holding.

Based on inconsistent research results, the purpose of this study is to investigate empirically the effect of institutional ownership, board size, growth opportunities, and net working capital toward cash holding. The research uses the manufacturing industry as one of the industries that desperately needs cash and cash equivalents in large quantities and is the biggest driver or contributor to the Indonesian economy. Therefore, cash is an essential element for manufacturing companies that tend to need a lot of cash to maintain their operational activities.

2. LITERATURE REVIEW

2.1. Trade-Off Theory

The trade-off theory was introduced by Modigliani and Miller in 1958 [11]. According to this theory, companies can identify the ideal amount of cash holding by balancing or matching marginal value of cost with marginal value of benefit from cash savings. The opportunity cost of capital invested in liquid assets is known as marginal cost. Costs can be in the form of short-term investment returns lost due to transaction motives and precautionary motives. The marginal benefits can be in the form of reducing the possibility of financial distress, providing growth opportunities, and being able to make optimal investment policies so as to reduce the increase in the cost of external financing (cost of debt) or liquidation of assets. If the amount of cash held is not optimal, the company will face high funding costs and ignore investment projects that benefit the company [7].

2.2. Pecking-Order Theory

Pecking-order theory was proposed by Myers and Majluf in 1984 [11]. According to this theory, companies have a sequence of sources of funds when it comes to corporate finance decisions. First is retained earnings, second is debt, and lastly, equity. When the company needs cash for investment financing, it will initially use internal funds first, retained earnings, to fund the investment opportunities. Internal financing is prioritized because it's cheaper and less risky financing. When internal financing is insufficient, the company will use external funds as a second alternative, by issuing debt. If the amount of debt is deemed too large and risky, the company will use the last source

of funding by issuing new equity. This theory states that there is no optimal level of cash, so companies tend to save the remaining cash from the results of operational activities [2].

2.3. Agency Theory

Agency theory was introduced by Jensen and Meckling in 1976 [11]. According to this theory, when a company's cash level is high, agency conflicts can occur, which then incur agency costs. Agency conflict is a conflict between managers and shareholders because managers tend to hold the cash for their personal interests and sacrifice the interests of shareholders to get high returns. Managers often have better information than investors in terms of investment opportunities such as prospects, risks, and firm value, thus causing information asymmetry and financing low investment opportunities. As a result, agency costs are incurred. Companies need to pay for supervision costs to ensure managers work in the interests of shareholders.

2.4. Cash Holding

Cash holding is a number of cash and cash equivalents held by firm and can be easily converted into cash [14]. According to Nainggolan and Saragih [11], cash holding is liquid assets in the form of various currencies owned by the company that are kept in petty cash, cash registers, or in accounts (either banks or money market). According to these definitions, cash holding is a number of cash and cash equivalents that are highly liquid because they are easily converted into cash and are in the form of cash, bank notes, or securities traded on the money market. According to Keynes (1937), there are four types of corporate motives for holding cash : transaction motives, precaution motives, speculation motives, and arbitrage motives [2].

2.5. Institutional Ownership

An institution's ownership of firm shares is referred to as institutional ownership [6]. Christian and Ekawati [1] state that institutional ownership is share ownership owned by an entity. The institution or entity in question is an investment company, insurance company, bank, or other institution that has a form like a company. Based on the several definitions, it is able to determine that institutional ownership is a firm's shares owned by an agency or institution, whether it be an investment company, insurance company, bank, or other institution.

2.6. Board Size

According to Jamil et al. [7], the board of directors is the party that is in charge of cash management and corporate governance issues. Cash management, corporate governance, and organizational policies are the responsibility of the board of directors and CEO [3]. The board of directors are in charge of properly managing the firm effectively and ensuring managers work for the shareholders's best interests. Based on these definitions, it can be concluded that board size is a measure of the number of directors who have responsibility for cash management, corporate policy, and corporate governance effectively to ensure that managers act in the best interests of shareholders.

2.7. Growth Opportunities

Growth opportunity refers to the combination of future investment opportunities with real assets that are possessed by the company [14]. Mawarti et al. [15] states that growth opportunity is a company's growth rate that allows businesses to earn profits because of the sustainable income received by the company. Based on these definitions, growth opportunities are opportunities for company growth in the form of future investments that can generate sustainable profits for the company.

2.8. Net Working Capital

Net working capital is part of the current assets used for the company's operational activities without disturbing its liquidity [14]. According to Arfan et al. [16], net working capital is a measure of a company's ability to pay back invoices due on time. Net working capital is defined as the difference or change between current assets and current liabilities and can be a substitute for cash because it can be quickly liquidated for funding. From these definitions, it can be concluded that net working capital is the change between current assets and current liabilities that is used as a substitute to fund a company's operational activities and pay invoices on time without disturbing the company's liquidity.

3. RESEARCH MODEL AND HYPOTHESES DEVELOPMENT

3.1. The Effect of Institutional Ownership on Cash Holding

Based on agency theory, the larger the institutional ownership, the more transparent the company's financial information is, reducing agency problems such as information asymmetry and forcing managers to make decisions in the interests of shareholders. Thus, institutional ownership has a significant negative effect on cash holding and is in accordance with Mohd et al. [4] and Christina and Ekawati [1] research. The ratio of the number of shares owned by the institution divided by the number of company shares outstanding is used to calculate institutional ownership.
H1: Institutional ownership has a significant negative effect toward cash holding.

3.2. The Effect of Board Size on Cash Holding

Large board sizes have greater diversity of context, capital and high skills as to provide better oversight in the interests of shareholders. Based on agency theory, good supervision will reduce management's actions to choose projects that do not have a positive NPV (Net Present Value) for personal gain so that it will reduce agency problems and cash holdings are carried out for the benefit of shareholders. As a result, the larger the board of directors, the greater amount of cash held by the company. It means that board size has significant positive effect on cash holding, which is consistent with Mengyun et al. [5], Christian and Fauziah [3], Senjaya and Yadnyana [6], and Jamil, et al. [7] research. The number of directors of a company is used to determine board size.
H2: Board size has a significant positive effect toward cash holding.

3.3. The Effect of Growth Opportunities on Cash Holding

Companies with high growth opportunities and debt are at risk of experiencing underinvestment problems, so they tend to keep cash to fund projects with a positive Net Present Value. In addition, companies can be subject to high bankruptcy costs due to their value dropping drastically during financial difficulties, so they will need to hold a lot of cash to avoid bankruptcy costs and financial difficulties. Based on the pecking order theory, companies will choose to finance with internal funds compared to expensive external funds such as high debt interest and the issuance of securities that are sensitive to information due to information asymmetry so that adverse selection costs make securities expensive. Thus, the higher the growth opportunities the higher the level of cash that being held by the company, and it is in accordance with Marfuah and Zulhilmi [2] and Mesfin [8] research. Growth opportunities are measured by market to book ratio since it indicates the market's expectation of growth opportunity.
H3: Growth opportunities have a significant positive effect toward cash holding.

3.4. The Effect of Net Working Capital on Cash Holding

Based on the trade-off theory, high net working capital can reduce transaction costs to raise external funds because of its liquid nature, allowing companies to avoid holding large amounts of

cash to maintain liquidity. Companies do not need to rely on the capital market when there is a cash shortfall because the cost of converting non-cash current assets into cash is cheaper. As a result, the higher amount of net working capital will reduce the amount of cash that is kept by the company. If the net working capital value is negative (working capital deficit), then the company may be experiencing liquidity difficulties so that it will reserve cash [14]. This relationship is in accordance with Shubita [9] and Mesfin [8] research. Net working capital is measured by subtracting current assets and current liabilities, then dividing the result by total assets.

H4: Net working capital has a significant negative effect toward cash holding.

3.5. Research Model

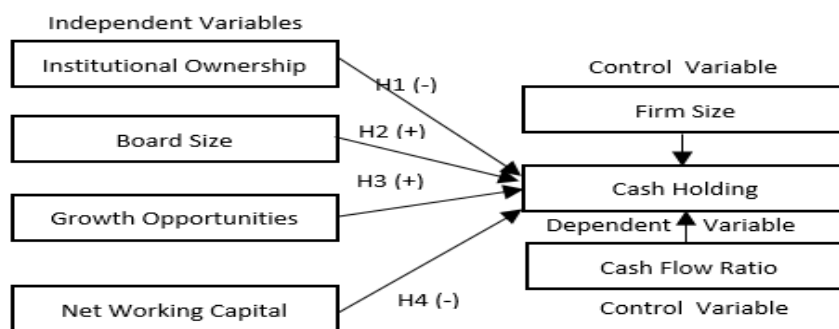The research model of this study is presented below:

Figure 1 The Research Model

4. RESEARCH METHOD

This study's population consists of all manufacturing industrial companies listed on the Indonesia Stock Exchange from 2016 to 2019 period. Purposive sampling is being used as the sample method in this study. The followings are the sample criteria: (a) Manufacturing Companies listed consecutively on the Indonesia Stock Exchange from 2016 to 2019; (b) Manufacturing Companies reporting in Rupiah (Rp) during 2016-2019; (c) Manufacturing Companies with audited financial statements ending on December 31; (d) Manufacturing Companies that generate net income consecutively during 2016-2019; (e) Manufacturing Companies with institutional ownership during 2016-2019. The selected research sample is 51 companies. The total of 204 panel data (51 companies times 4 period) were analyzed using multiple regression analysis. Data processing in this study using Eviews 12 software.

The following is the operationalization of each research variable as presented in Table 1 below.

Table 1 Operationalization of Research Variables

Variable	Proxy	Adopted From	Scale
Cash Holding	$CH = \frac{Cash\ and\ Cash\ Equivalents}{Total\ Asset}$	Mengyun *et al*. (2021)	Ratio
Institutional Ownership	$IO = \frac{Number\ of\ Shares\ Owned\ by\ the\ Institution}{Number\ of\ Shares\ Outstanding}$	Yanti dkk. (2019)	Ratio
Board Size	$BS =$ Number of Board of Directors	Mohd *et al*. (2015)	Nominal
Growth Opportunities	$MTB = \frac{Market\ Value\ oF\ Equity}{Book\ Value\ of\ Equity}$	Saputri dan Kuswardono (2019)	Ratio
Net Working Capital	$NWC = \frac{Current\ Asset - Current\ Liabilities}{Total\ Asset}$	Sari dan Zoraya (2021)	Ratio
Firm Size	$FS =$ Ln of total asset	Mengyun *et al*. (2021)	Ratio
Cash Flow Ratio	$CFR = \frac{Net\ Income + Depreciation}{Total\ Asset}$	Shubita (2019)	Ratio

The following is the multiple linear regression equation to be used:
$$CHOLD = c + \beta_1 INSTOWN + \beta_2 BSIZE + \beta_3 GOP + \beta_4 NWC + \beta_5 FSIZE + \beta_6 CFR + \varepsilon$$

Note:
CHOLD = Cash Holding; c = Constant; β_{1-6} = Regression Coefficient; INSTOWN = Institutional Ownership; BSIZE = Board Size; GOP = Growth Opportunities; NWC = Net working Capital; FSIZE = Firm Size; CFR = Cash Flow Ratio; ε = Error term

The research method employed is a combination of time series and cross-sectional data known as panel data (pooled data). Three alternative models can be used to analyze the panel data: Common Effect Model (CEM), Fixed Effect Model (FEM), and Random Effect Model (REM). Several tests are necessary to choose the most appropriate model: Chow Test, Hausman Test, and Langrange Multiplier (L-M) Test.

5. RESULTS

Table 2 Descriptive Statistical Test Results

	CH	IO	BS	GOP
Mean	0.085312	0.697372	5.377451	1.698216
Maximum	0.320857	0.997112	11.00000	8.792612
Minimum	0.000864	0.293987	2.000000	-1.220414
Std. Dev.	0.081294	0.167331	2.114850	1.939634
	NWC	FS	CFR	
Mean	0.226563	28.59957	0.086401	
Maximum	0.844003	32.20096	0.206268	
Minimum	-0.191602	25.21557	0.015810	
Std. Dev.	0.180565	1.430106	0.042854	

According to the descriptive statistical test as presented in Table 2, the dependant variable, cash holding, has a mean value of 0.085312, standard deviation value of 0.081294, maximum value of 0.320857 and a minimum value of 0.000864. There are four independent variables in this study. First, institutional ownership has a mean value of 0.697372, standard deviation value of 0.167331, maximum value of 0.997112 and a minimum value of 0.293987. Second, board size has a mean value of 5.377451, standard deviation value of 2.114850, maximum value of 11 and a minimum value of 2. Third, growth opportunities has a mean value of 1.698216, standard deviation value of 1.939634, maximum value of 8.792612 and a minimum value of -1.220414. Fourth, net working capital has a mean value of 0.226563, standard deviation value of 0.180565, maximum value of 0.844003 and a minimum value of -0.191602. There are two control variables in this study. First, firm size has a mean value of 28.59957, standard deviation value of 1.430106, maximum value of 32.20096 and a minimum value of 25.21557. Second, cash flow ratio has a mean value of 0.086401, standard deviation value of 0.042854, maximum value of 0.206268 and a minimum value of 0.015810.

According to the Chow Test findings, the Chi-square cross-section has a probability value of 0.0000, indicating that Fixed Effect Model is the better model to apply. According to the Hausman Test, the random cross-section has a probability value of 0.2225, indicating that the Random Effect Model is the preferred model to apply. According to the Langrange-Multiplier Test, the value of Both on the Breusch-Pagan section is 0.0000, indicating that the Random Effect Model is the preferable model to use. Based on the three tests results, it can be determined that the Random Effect Model was chosen for this study. Due to the use of panel data, the classical assumption tests used are normality test and multicollinearity test. According to normality test, the probability value of Jarque-Bera statistic is 0.072947, indicating that the data is normally distributed and can be used for regression testing and that the test results are reliable. The multicollinearity test results show that all variables have a correlation coefficient value of less than 0.85, which means there is no multicollinearity in this study so it can be used for regression testing.

The following is the results of multiple linear regression with Random Effect Model as presented in Table 3:

Table 3 The Results of Multiple Linear Regression with Random Effect Model

Variable	Coefficient	Sig. Value	Results
Constants	-0.075203	0.6707	
Institutional Ownership	0.000762	0.9845	H1 is rejected
Board Size	0.007848	0.0349	H2 is accepted
Growth Opportunities	-0.000384	0.8990	H3 is rejected
Net Working Capital	0.187071	0.0000	H4 is rejected
Firm Size	0.001258	0.8412	
Cash Flow Ratio	0.463806	0.0000	
Adjusted R-Squared	0.232874		
F Statistic	0.000000		

The form of the multiple linear regression equation is as follow:
CHOLD = -0.075203 + 0.000762INSTOWN + 0.007848BSIZE + -0.000384GOP + 0.187071NWC + 0.001258FSIZE + 0.463806CFR + ε

Notes:
CHOLD = Cash Holding; c = Constant; β_{1-6} = Regression Coefficient; INSTOWN = Institutional Ownership; BSIZE = Board Size; GOP = Growth Opportunities; NWC = Net working Capital; FSIZE = Firm Size; CFR = Cash Flow Ratio; ε = Error term

The F-test results reveal that the probability value of F-statistic is 0.000000, indicating that all independent variables and control variables regarded as independent variables simultaneously affect the dependent variable significantly. According to the multiple determinant coefficient test, the adjusted R-squared value is 0.232874, indicating that all independent variables in this research, including control variables, have an effect toward dependent variable by 23.29%. Meanwhile, the remaining 76.71% is explained by variables that are not examined in this study.

According to the T-test, institutional ownership has a probability value of 0.9845 with a regression coefficient of 0.000762, which means H1 is rejected. Institutional ownership has an insignificant positive effect toward cash holding. The board size has a probability value of 0.0349 and a regression coefficient of 0.007848, which means that H2 is accepted. Board size has a significant positive effect toward cash holding. Growth opportunities have a probability value of 0.8990 with a regression coefficient of -0.000384, which means H3 is rejected. Growth opportunities have an insignificant negative effect toward cash holding. Net working capital has a probability value of 0.0000 and a regression coefficient of 0.187071, which means H4 is rejected. Net working capital has a significant positive effect toward cash holding. Firm size as control variable has a probability value of 0.8412 and regression coefficient value of 0.001258, indicating that firm size has an insignificant positive effect toward cash holding. Cash flow ratio as control variable has a probability value of 0.0000 and a regression coefficient value of 0.463806, indicating that cash flow ratio has a significant positive effect toward cash holding.

6. DISCUSSIONS

Based on the findings obtained and generated from this study, authors concluded several discussions. Institutional ownership has an insignificant positive effect toward cash holding and it contradicts with agency theory, which claims that the larger institutional ownership of a company, the transparency will increase, so that agency problems, namely information asymmetry, will decrease and make managers forced to make decisions that are beneficial to shareholders, not to save excessive cash for manager's personal interests. The results of the study indicate the opposite, indicating that supervision of the actions of managers in Indonesian manufacturing companies is still considered

passive or ineffective, so that managers can still save excessive cash. These result is in accordance with Senjaya and Yadnyana [6] and Yanti et al. [12] research, which states that institutional ownership has an insignificant positive effect toward cash holding.

Board size has a significant positive effect toward cash holding, which is consistent with agency theory that states the larger the number of directors on board, the more effective the supervision of the manager's actions so that agency problems, namely information asymmetry, will be reduced and managers will act for shareholders's best interests. The larger board of directors size has greater diversity in terms of capital and high skills so that it can provide better oversight than a small board size. Thus, the larger the board of directors, the more cash is available for distribution to shareholders in the form of dividends and profitable investments. This result is in accordance with Mengyun et al. [5], Christian and Fauziah [3], Senjaya and Yadnyana [6], and Jamil et al. [7] research.

Growth opportunities have an insignificant negative effect toward cash holding, which contradicts pecking order theory. According to the pecking order theory, companies with high growth opportunities will hold more cash because financing through internal funds has cheaper and less risky financing than expensive external funds such as high interest debt and expensive securities. Companies with high growth opportunities will tend to keep cash in order to be able to fund projects with a positive Net Present Value, avoid high bankruptcy costs, and financial difficulties. The findings of this study differ from the results of previous studies, perhaps because the proxy for growth opportunities in this study uses market to book value, while in other studies it uses sales growth. According to the findings of this study, manufacturing companies in Indonesia with high growth opportunities rely more on external funding since they have easy access to the capital market and do not need to hold more cash. Companies with high growth opportunities will depend more on short-term financing and the issuance of securities or shares to fund their investment projects. The findings of this study are consistent with Sari and Zoraya [17], Mawarti et al. [15], and Sheikh et al. [18] research.

Net working capital has a significant negative effect toward cash holding, which contradicts trade-off theory, where high net working capital has a high level of liquidity and reduces transaction costs to obtain external funds so that firms do not need to keep large sums of cash. Because the cost of converting non-current assets into cash is cheaper than other assets, companies do not need to rely on the capital market when there is a shortage of cash. On the other side, if net working capital is low or has a deficit, the company can be considered at risk of experiencing financial difficulties or low levels of liquidity, so that the company will hold more cash. This study may differ from the results of other studies because this study uses a formula where the current assets still contain cash in them. Cash is one of components from net working capital, thus, when net working capital rises, so will cash [17]. Furthermore, current assets of Indonesian companies cannot easily be converted into cash or become cash substitutes, so that even if net working capital increases, the company will still create cash reserves to maintain company liquidity. The findings of this study are consistent with Sari and Zoraya [17], Wulandari and Setiawan [14], Sudarmi and Nur [19], and Marfuah and Zulhilmi [2] research.

7. CONCLUSIONS

Based on the findings from data processing and testing in this study, several conclusions could be drawn. First, institutional ownership has an insignificant and positive effect toward cash holding, so H1 is rejected. Second, board size has a significant positive effect toward cash holding, so H2 is accepted. Third, growth opportunities have an insignificant and negative effect toward cash holding, so H3 is rejected. Fourth, net working capital has a significant positive effect toward cash holding, so H4 is rejected.

This research still has some limitations due to limited time and resources. First, the research period is only limited to four years, from 2016 to 2019. Second, the adjusted R-squared value from this research has a small value, which means that the variables or factors in this study only had a small impact on cash holding. Third, the independent variables used are limited to four variables and the control variables used are limited to two variables only. This study does not use moderating variables to determine the difference in effect in strengthening or weakening the relationship between variables independent with the dependent variable and also does not use mediating variables as an intermediary

between the independent variable and the variable dependent to analyze the strength of the association between variables.

Based on the conclusions of this study and the limitations has been described previously, the following suggestions are as follows: (i) For further researchers, they can extend the research period to five to ten years, so it can be a trend or use the time before and during COVID-19 to support research about COVID-19 more. Further researchers can add other independent variables so they can enlarge the adjusted R squared value, such as capital expenditure, cash conversion cycle, managerial ownership, board independence, and investment opportunity set. Researchers can also add control variables to make better and unbiased research results, such as dividends, leverage, sales growth, and cash conversion cycle. Researchers can also use moderating variables such as dividend payments and corporate good governance, as well as mediating variables such as information asymmetry and accrual quality. (ii) For companies, this research result is intended to be taken as consideration for company management in managing cash holding optimally, especially by paying attention to the factors that significantly affect cash holding, which in this study are board size and net working capital. (iii) For investors, this research result is intended to be taken as consideration for investors in making decisions regarding investing their capital in the company, especially seen from the preparation of the board size to manage company assets effectively and good processing of net working capital to maintain company liquidity.

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REFERENCES

[1] Y.T. Christina, E. Ekawati, Excess Cash Holdings dan Kepemilikan Institusional pada Perusahaan Manufaktur yang Terdaftar di BEI, in: Jurnal Manajemen Strategi Bisnis dan Kewirausahaan, Denpasar, Bali, Indonesia vol. 8, no. 1, 2014, pp. 1-10.

[2] Marfuah, A. Zulhilmi, Pengaruh Growth Opportunity, Net Working Capital, Cash Conversion Cycle dan Leverage Terhadap Cash Holding Perusahaan, in: Optimum: Jurnal Ekonomi Dan Pembangunan, vol. 5, no. 1, Yogyakarta, Indonesia, 2015, pp. 32-43. DOI: http://dx.doi.org/10.12928/optimum.v5i1.7819

[3] N. Christian, F. Fauziah, Faktor-Faktor Penahanan Dana (Cash Holding), in: Global Financial Accounting Journal, vol. 1, no. 1, Batam, Kepulauan Riau, Indonesia, 2017, pp. 13-24.

[4] K.N.T. Mohd, R.A. Latif, I. Saleh, Institutional ownership and cash holding. Indian Journal of Science and Technology, in: Indian Journal of Science and Technology, vol. 8, no. 32, Chennai, Tamilnadu, India, 2015, pp. 1-6. DOI: http://dx.doi.org/10.17485/ijst/2015/v8i32/92124

[5] W. Mengyun, Um-E-Habiba, M. Imad-Ud-Din Akbar, M.A.B. Memon, M. Husnain, Analyzing the Role of Board Independence towards Corporate Cash Holding: Evidence from Listed Family Firms of Emerging Economy, in: Journal of Contemporary Issues in Business and Government, vol. 27, no. 3, 2021, pp. 1360-1369. DOI: http://dx.doi.org/10.47750/cibg.2021.27.03.182

[6] S.Y. Senjaya, I K. Yadnyana, Analisis Pengaruh Investment Opportunity Set, Cash Conversion Cycle, dan Corporate Governance Structure terhadap Cash Holdings, in: E-Jurnal Ekonomi dan Bisnis Universitas Udayana, vol. 5, no. 8, Denpasar, Bali, Indonesia, 2016, pp. 2549-2578.

[7] S. Jamil, A. Anwar, N. Afzaal, A. Tariq, M. Asif, Determinants of Corporate Cash Holdings: Empirical Analysis of Pakistani Firms, in: IOSR Journal of Economics and Finance (IOSR-JEF), vol. 7, no. 3, Pakistan, India, 2016, pp. 29-35. DOI: http://dx.doi.org/10.33844/ijol.2016.60263

[8] E.A. Mesfin, The Factors Affecting Cash Holding Decisions of Manufacturing Share Companies in Ethiopia, in: International Journal of Advanced Research in Management and Social Sciences, vol. 5, no. 3, London, United Kingdom, 2016, pp. 48-67.

[9] M.F. Shubita, The Impact of Working Capital Management on Cash Holdings of Large dan Small Firms: Evidence from Jordan, in: Investment Management and Financial Innovations, vol. 16, no. 3, Sumy, Ukraine, 2019, pp. 76-86. DOI: http://dx.doi.org/10.21511/imfi.16(3).2019.08

[10] Yongki, R. Panjaitan, F.M. Leon, Dampak Manajemen Modal Kerja terhadap Cash Holding pada Industri Consumer Goods Indonesia, in: Jurnal Keuangan dan Bisnis, vol. 19, no. 1, Palembang, Sumatera Selatan, Indonesia, 2021, pp. 1-17.

[11] K.N. Nainggolan, A.E. Saragih, Faktor-Faktor yang Mempengaruhi Kebijakan Cash Holding pada Perusahaan Manufaktur yang Terdaftar di Bursa Efek Indonesia, in: Jurnal Riset Akuntansi & Keuangan (JRAK), vol. 6, no. 1, Bandung, Jawa Barat, Indonesia, 2020, pp. 23-46. DOI: https://doi.org/10.54367/jrak.v6i1.851

[12] Yanti, L. Susanti, H. Wirianata, Viriany, Corporate Governance, Capital Expenditure Dan Cash Holdings, in: Jurnal Ekonomi, vol. 24, no. 1, Jakarta Barat, Indonesia, 2019, pp. 1-14. DOI: http://dx.doi.org/10.24912/je.v24i1.452

[13] E. Saputri, A. Kuswardono, Pengaruh Profitabilitas, Leverage, Firm Size, dan Growth Opportunity Terhadap Cash Holding Perusahaan (Studi Kasus Perusahaan Manufaktur yang Terdaftar Pada Bursa Efek Indonesia Periode Tahun 2013-2017), in: Journal of Entrepreneurship, Management, and Industry (JEMI), vol. 2, no. 2, Jakarta Selatan, Indonesia, 2019, pp. 91-104. DOI: https://doi.org/10.36782/JEMI.V2I2.1889

[14] E.A. Wulandari, M.A. Setiawan, Pengaruh Growth Opportunity, Net Working Capital, Cash Conversion Cycle dan Dividend Payout terhadap Cash Holding (Studi Empiris pada Perusahaan Property dan Real Estate yang Terdaftar di Bursa Efek Indonesia Tahun 2014-2017), in: Jurnal Eksplorasi Akuntansi, vol. 1, no. 3, Sumatera Barat, Indonesia, 2019, pp. 1259-1274. DOI: https://doi.org/10.24036/jea.v1i3.141

[15] H. Mawarti, Y. Chomsatu, P. Siddi, Faktor-Faktor Yang Mempengaruhi Cash Holding Pada Perusahaan Manufaktur Yang Terdaftar Di Bursa Efek Indonesia, in: Tirtayasa Ekonomika, vol. 15, no. 2, Banten, Indonesia, 2020, pp. 342-357. DOI: http://dx.doi.org/10.35448/jte.v15i2.6933

[16] M. Arfan, Basri, R. Handayani, M.S.A. Majid, H. Fahlevi, A. Dianah, Determinants of Cash Holding of Listed Manufacturing Companies in the Indonesian Stock Exchange, in: DLSU Business & Economics Review, vol. 26, no. 2, Manila, Filipina, 2017, pp. 1-12. DOI: https://doi.org/10.24815/jaroe.v3i3.17290

[17] M. Sari, I. Zoraya, Analisis Faktor-Faktor yang Memengaruhi Cash Holding pada Perusahaan Industri Sektor Barang Konsumsi yang Terdaftar di Bursa Efek Indonesia Tahun 2009-2018, in: Management Insight: Jurnal Ilmiah Manajemen, vol. 16, no. 1, Bengkulu, Indonesia, 2021, pp. 61-80. DOI: https://doi.org/10.33369/insight.16.1.61-80

[18] N.A. Sheikh, K.K. Mehmood, M. Kamal, Determinants of Corporate Cash Holdings: Evidence from MNCs in Pakistan, in: Review of Economics and Development Studies, vol. 4, no. 1, Pakistan, India, 2018, pp. 71-78. DOI: http://dx.doi.org/10.26710/reads.v4i1.282

[19] E. Sudarmi, T. Nur, Analisis Faktor-Faktor yang Mempengaruhi Cash Holdings pada Perusahaan Manufaktur yang Tercatat di Bursa Efek Indonesia, in: ESENSI, vol. 21, no. 1, Jakarta Timur, Indonesia, 2018, pp. 14-33.