

The Effect Of Corporate Governance On Cash Holdings

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Abstract: This study was conducted to determine the influence of corporate governance in manufacturing companies in determining cash holdings accompanied by financial performance as a control variable. Corporate governance is measured from board structures proxied by board size, independent board compositions, and board meetings; the audit committee proxied by the number of members and meetings; and ownership structures are proxied with institutional and managerial ownership. The data in the study were taken by purposive random sampling. The data in the study was processed and analysed using panel data regression analysis using Eviews 10 for the 2017-2021 research period. The results showed that, partially, board size and the independent board compositions have a positive and significant influence. Meanwhile, board meetings, audit committee members, audit committee meetings, institutional ownership and managerial ownership did not significantly influence.

Keywords: Cash Holdings; Board Structure; Audit Committee; Ownership Structure.

Abstrak: Penelitian ini dilakukan untuk mengetahui pengaruh tata kelola dalam perusahaan manufaktur dalam keputusan menentukan jumlah kas ditangan yang disertai dengan kinerja keuangan sebagai variabel kontrol. Tata kelola diukur dari struktur dewan diproksikan dengan jumlah anggota dewan direksi, proporsi dewan direksi independen, dan jumlah rapat dewan direksi; komite audit diproksikan dengan jumlah anggota dan rapat komite audit; dan struktur kepemilikan diproksikan dengan kepemilikan institusional dan manajerial. Data dalam penelitian diambil secara purposive random sampling. Data dalam penelitian diolah dan dianalisis menggunakan analisis regresi data panel menggunakan Eviews 10 untuk periode penelitian 2017-2021. Hasil olah data menunjukkan bahwa secara parsial, hanya ukuran dewan dan komposisi dewan independen yang memiliki pengaruh positif dan signifikan. Sementara, jumlah rapat dewan direksi, jumlah anggota komite audit, jumlah rapat komite audit, kepemilikan institusional dan kepemilikan manajerial tidak memiliki pengaruh yang signifikan.

Kata Kunci: Kas Ditangan; Struktur Dewan; Komite Audit; Struktur Kepemilikan.

INTRODUCTION

Company activities depend highly on cash holdings because these assets become a source of life in driving the company's operational, investment, and financing activities (Hassanein & Kokel, 2019). The company must determine whether to use existing cash or hold cash to meet liquidity needs, investment needs, or operational activities.

(Akhtar et al., 2018) mention two reasons that encourage companies to have large amounts of cash. First, having a large amount of cash in hand shows the flexibility of internal funding, especially when the company needs cash but does not want to convert its non-cash assets because it avoids high external funding costs. Second, companies can use the cash on hand as self-protection and anticipate the possibility of making wrong investment decisions.

The main objective of the company's business activities is to improve shareholders' welfare and fulfil stakeholders' rights. Companies with good corporate governance will be helped to ensure that management runs the business to fulfil the rights of stakeholders. Good



corporate governance is an oversight tool that minimises management actions, focusing on fulfilling self-interest and reducing agency problems between managers and shareholders. Corporate governance in a company that needs to run more effectively will allow management to make decisions that benefit it, such as holding cash in hand excessively (Ajanthan & Kumara, 2017).

One of the corporate governance mechanisms in the company can be seen from the board structure within the company. (Gul et al., 2020; Hassanein & Kokel, 2019) Their research found that the amount of cash holdings and many board members can increase. This happens because the larger board size makes the decision-making ineffective, resulting in conflicts of interest between management and shareholders, increasing and impacting the amount of cash holdings (Cambrea et al., 2022). Meanwhile, (Abuhijleh & Zaid, 2023; Talbi & Menchaoui, 2023) in their research found that a greater independent boards composition can reduce the amount of cash holdings because independent boards of directors can prevent decision-making that benefits management. In addition, (Abuhijleh & Zaid, 2023) found that the more frequent board meetings with management, the smaller the amount of cash holdings. Meetings held by the board of directors can prevent opportunistic behaviour of management, which makes decisions that benefit them.

The corporate governance mechanism can also be seen from the existence of an audit committee. The supervisory role of the audit committee may prevent management from using the cash on hand to meet its interests. An audit committee with expertise in finance can mitigate agency problems between shareholders as company owners and management as agents and positively impact the level of cash holdings (Choi et al., 2020).

The ownership structure within a company can also be a corporate governance mechanism that oversees the company's management activities. (Al-Najjar & Clark, 2017; Mawardi & Nurhalis, 2018) Their research found that the greater the percentage of institutional ownership, the more cash holdings there are. Significant institutional ownership will increase supervisory costs, so companies must have significant cash holdings to meet these costs (Mawardi & Nurhalis, 2018). In agency theory, managerial ownership is believed to reduce conflicts of interest between management and shareholders because it can align the interests of each party to reduce agency costs. Research (Talbi & Menchaoui, 2023) states that a negative relationship exists between managerial ownership and cash holdings, which means that greater managerial ownership will decrease the amount of cash holdings.





Figure 1. Percentage of Cash Holding of The Sample Companies
 Source: Processed data (2023)

Figure 1 shows the percentage of cash holdings of the sample companies in 2017 – 2021. Cash holding in this study is measured by the amount of cash and cash equivalents to total assets. Based on the data in **Figure 1**, during the COVID-19 pandemic in 2020 and 2021, the amount of cash holding of the sample companies increased compared to before the pandemic. The percentage of cash holding was 9.789 per cent of total assets in 2020 and 10.075 per cent in 2021. This data shows that the sample companies implemented precautionary principles during these two years to survive the pandemic by increasing their cash reserves.

Good corporate governance is needed to help companies improve cash monitoring and utilisation, especially in times of crisis (Cambrea et al., 2022). Corporate governance is a control tool that influences management decision-making because it is closely related to management. Determining the amount of cash holdings in a manufacturing company is one of the important decisions because it will affect the management of operations, investment, and funding of manufacturing companies.

Determining cash holding can give rise to agency conflicts between company owners and agents. The board of directors is believed to align the interests of shareholders as owners and management as agents (Ferreira & Vicente, 2020). In POJK No. 55/POJK.04/015 states that the audit committee is an independent party outside the company supervising management. Institutional ownership also has a supervisory role because it is generally the shareholder with the most significant ownership and needs to guarantee that their interests will be protected. Meanwhile, management, which is also a shareholder, is also believed to be able to harmonise the interests of owners and agents.

Previous research on the effect of corporate governance on determining cash holdings has yielded inconsistent results. Based on the previous explanation, this research was conducted to obtain empirical evidence regarding the role of corporate governance in influencing management decision-making and determining the amount of cash holdings in manufacturing companies in Indonesia. Corporate governance is measured using board structures proxied by board size, independent board compositions, and board meetings; audit committees proxied by committee members and committee meetings; and ownership

structures proxied by institutional ownership and managerial ownership. Because cash holding is one measure of financial performance, this research uses several financial performance ratios as control variables to obtain a complete and better empirical model.

THEORETICAL REVIEW

They are the Pecking Order Theory. The company will finance its investment decisions with the first source of funds from retained earnings, second from debt with a low level of risk, third from debt with a high level of risk, and finally from shareholders (Hassanein & Kokel, 2019). If the investment activities can be met with internal fund sources, the company will have a cash balance on hand that can be used to pay dividends, meet liquidity needs, and reserve funds. However, the company will use existing cash if internal funding from retained earnings needs to be increased.

Trade-off Theory. In the trade-off theory, the company is said to bear marginal costs if the company chooses to hold a certain amount of cash as a reserve fund and, at the same time, misses profitable investment opportunities. If the company lacks cash holdings, then the company will lose profitable investment opportunities and incur high costs to get additional financing. However, if management decides to hold large amounts of cash, management can use the funds to maximise the company's value but sacrifice shareholder welfare, resulting in conflict.

Agency Theory. In this theory, management can decide how to manage and use cash holdings. Determining the amount of cash can cause conflicts of interest between company management and shareholders, causing agency conflicts between agents and owners (Hassanein & Kokel, 2019). If there is no adequate supervision over management, management will have the opportunity to manage cash in the company's hands for their interests.

Cash Holding. The effectiveness and efficiency of the company's operational activities depend highly on the decision to determine the amount of holdings. The COVID-19 pandemic changed the company's paradigm in backing up its funds, especially when there was a decrease in company revenue (Demary et al., 2021). Cash holdings are the main thing that needs to be considered so that the company can meet its operational expenses and maintain its liquidity.

Corporate Governance. Corporate governance can be interpreted as structured internal control activities within the company (Hayati, 2020). If corporate governance functions effectively, then the interests of shareholders will be protected so that shareholders as owners will receive a decision to hold a large amount of cash holdings if the funds are used for investment purposes (Ajanthan & Kumara, 2017). Companies with low corporate governance will have an opportunity for management to hold large cash holdings and make investments that only benefit management (Akhtar et al., 2018).

Board Size and Cash Holdings. The large board size can limit the number of cash holdings because the board of directors will act more cautiously on management decisions that may harm shareholders (Abuhijleh & Zaid, 2023). However, the large board size indicates poor corporate governance because decision-making becomes inefficient, so the board of directors cannot carry out supervisory duties adequately (Ferreira & Vicente, 2020). This condition will increase conflicts of interest between management and shareholders, which impacts increasing the amount of cash holdings (Cambrea et al., 2022).



Independent Composition Board and Cash Holdings. In agency theory, large amounts of cash holdings have the potential to lead to opportunistic behaviour from company management (Hassanein & Kokel, 2019). If boards of directors can perform their functions effectively, then a high proportion of independent boards of directors can potentially reduce the amount of cash holdings (Abuhijleh & Zaid, 2023). If independent boards of directors are not actively conducting supervision, then they cannot monitor management effectively, which impacts the increase in the amount of cash held (Al-Najjar & Clark, 2017).

Board Meetings and Cash Holdings. In agency theory, the board of directors must monitor management behaviour and ensure that management's interests align with shareholders' (Manoel et al., 2018). Through meetings, the board of directors can prevent management's opportunistic behaviour from making decisions that benefit him. Therefore, meetings held by the board of directors should positively impact the success of supervisory activities, reducing the amount of cash holdings (Hassanein & Kokel, 2019).

Audit Committee Members and Cash Holdings. (Al Lawati & Hussainey, 2021) found that the presence of audit committee members with expertise in finance can increase control over management decisions regarding cash holdings and will impact increasing cash holdings. Conversely, (Hassanein & Kokel, 2019) found that the more audit committee members, the more cash holdings will decrease significantly.

Audit Committee Meetings and Cash Holdings. An audit committee that actively holds meetings could positively impact the excess cash or cash reserves (Choi et al., 2020). Conversely, (Kengatharan, 2017) in his research found that meetings held by the audit committee did not affect the determination of the amount of cash holdings.

Institutional Ownership and Cash Holdings. Institutional ownership is believed to increase the effectiveness of supervisory activities on management (Darma et al., 2021). (Al-Najjar & Clark, 2017; Mawardi & Nurhalis, 2018) Their research found that the greater the percentage of institutional ownership, the more cash holdings there are. The greater the institutional ownership, the more supervision costs, so the company needs to have large cash holdings (Mawardi & Nurhalis, 2018).

Managerial Ownership and Cash Holdings. In agency theory, managerial ownership becomes a governance mechanism that can reduce conflicts of interest between management and shareholders because it can align the interests of each party to reduce agency costs. However, managerial ownership can open up opportunities for opportunistic actions from management because management decision-making tends to benefit itself by utilising assets in the company to decrease the amount of cash holdings (Mawardi & Nurhalis, 2018).

Control Variables. The control variables in this study used financial performance, which consisted of firm size, leverage, profitability, net working capital, and capital expenditure. The larger the company, the greater the opportunity for the company to use the resources it has to generate profits so that it has the potential to increase cash holdings. A company with a high level of leverage will use cash on hand to maintain its liquidity, that is, to fulfil its obligations in paying off the principal and interest on the loan. Companies with a high level of profitability will have a stable cash flow and have the opportunity to increase cash holdings. The greater the value of net working capital owned by the company, the smaller the cash in the company's hands because net working capital does not take long to convert into cash in hand. The amount of cash holdings tends to decrease because it is used to finance high capital expenditures.



The hypotheses in this study are as follows:

- Ha₁:** Board size (ukuran dewan direksi) has a positive effect on cash holdings
- Ha₂:** Independent board composition has a negative effect on cash holdings
- Ha₃:** Board meetings have a negative effect on cash holdings
- Ha₄:** Audit committee members have a positive effect on cash holdings
- Ha₅:** Audit committee meetings have a positive effect on cash holdings
- Ha₆:** Institutional ownership has a positive effect on cash holdings
- Ha₇:** Managerial ownership has a negative effect on cash holdings

The research model in this study can be seen in **Figure 2**.

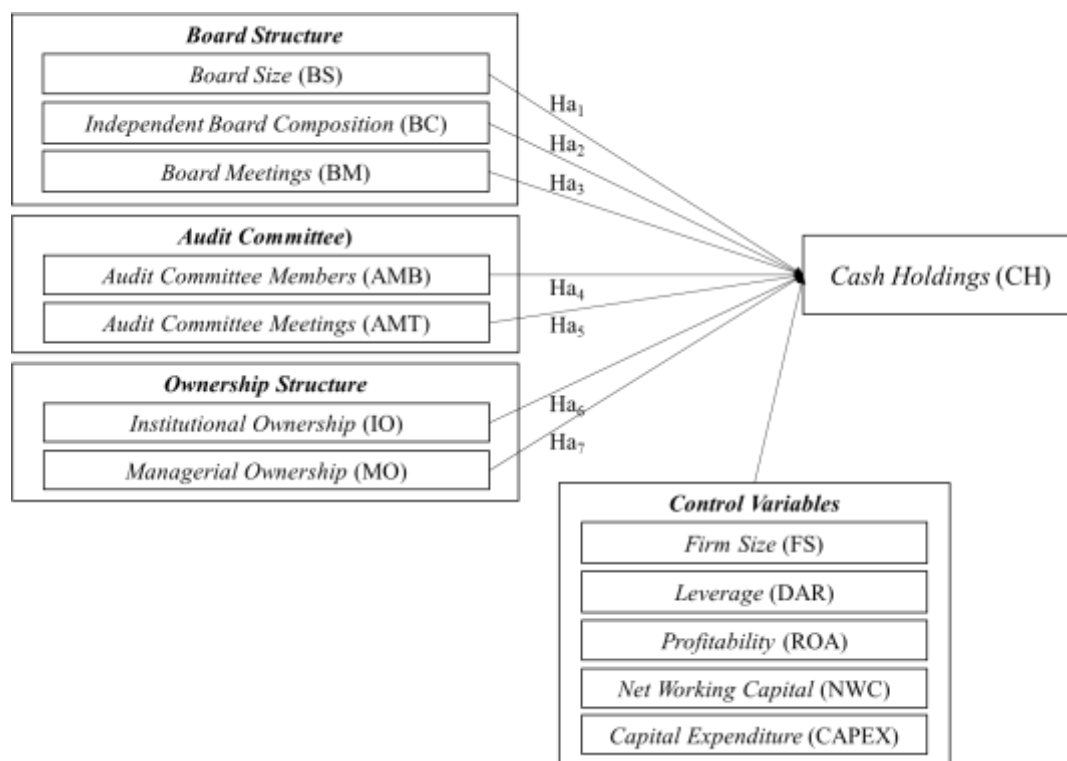


Figure 2. Research Model

METHODS

The dependent variable in this study is cash holdings. Independent variables consist of board structures (board size, independent board compositions, board meetings), audit committees (audit committee members and meetings), and ownership structures (institutional and managerial ownership). Financial performance as a control variable consists of firm size, leverage, profitability, net working capital, and capital expenditures. The data processed in this research is secondary data obtained from manufacturing companies registered on the IDX in 2017-2021. Data samples were taken by purposive sampling. Data is collected from the company's website and the Indonesia Stock Exchange page. Data from the company's financial statements were processed using E-views 10. The measurement of each variable is presented in **Table 1**.

Table 1. Measurement of Research Variables

Variable	Name of Variable	Measurement Scale	Variable Measurement	Source
CH	Cash Holding (CHOLD)	ratio	Cash Holding (CH) = $\frac{\text{Cash and Cash Equivalents}}{\text{Total Assets}}$	(Abuhijleh & Zaid, 2023; Ferreira & Vicente, 2020; Talbi & Menchaoui, 2023)
BS	Board Size	nominal	Board Size (BS) = \sum Board of Directors	(Cambrea et al., 2022; Gul et al., 2020; Hassanein & Kokel, 2019)
BC	Independent Board Composition	ratio	Independent Board Composition (BC) = $\frac{\text{Independent Directors}}{\text{Total Directors}}$	(Cambrea et al., 2022; Gul et al., 2020; Hassanein & Kokel, 2019)
BM	Board Meetings	nominal	Board Meetings (BM) = \sum Board Meetings in 1 year	(Ezeani et al., 2023; Hassanein & Kokel, 2019)
AMB	Audit Committee Members	nominal	Audit Committee Members (AMB) = \sum Audit Committee Members	(Kengatharan, 2017)
AMT	Audit Committee Meetings	nominal	Audit Committee Meetings (AMT) = \sum Audit Committee Meetings in 1 year	(Hassanein & Kokel, 2019; Kengatharan, 2017)
IO	Institutional Ownership	ratio	Institutional Ownership (IO) = % shares owned by institutions	(Alghadi et al., 2021; Mawardi & Nurhalis, 2018)
MO	Managerial Ownership	ratio	Managerial Ownership (MO) = % shares owned by management	(Alghadi et al., 2021; Mawardi & Nurhalis, 2018)
FS	Firm Size	ratio	Firm Size (FS) = Ln Total Assets	(Abuhijleh & Zaid, 2023; Cambrea et al., 2022)
DAR	Leverage	ratio	Debt to Assets Ratio (DAR) = $\frac{\text{Total Liabilities}}{\text{Total Assets}}$	(Abuhijleh & Zaid, 2023; Cambrea et al., 2022)
ROA	Profitability	ratio	Return on Assets (ROA) = $\frac{\text{Net Income}}{\text{Total Assets}}$	(Abuhijleh & Zaid, 2023; Cambrea et al., 2022)
NWC	Net Working Capital	ratio	Net Working Capital (NWC) = $\frac{\text{Current Assets} - \text{Current Liabilities} - \text{Cash \& Cash Equivalent}}{\text{Total Assets}}$	(Abuhijleh & Zaid, 2023; Cambrea et al., 2022)



$$\text{CAPEX} = \frac{\text{Capital Expenditure}}{\text{ratio}} = \frac{\text{Capital Expenditure (CAPEX)}}{\frac{\text{Fixed Assets}_t - \text{Fixed Assets}_{t-1}}{\text{Total Assets}}} \quad (\text{Hassanein \& Kokel, 2019})$$

The research model used is panel data regression with the following equation:

$$\text{CH} = \alpha + \beta_1 \text{BS} + \beta_2 \text{BC} + \beta_3 \text{BM} + \beta_4 \text{AMB} + \beta_5 \text{AMT} + \beta_6 \text{IO} + \beta_7 \text{MO} + \beta_8 \text{FS} + \beta_9 \text{DAR} + \beta_{10} \text{ROA} + \beta_{11} \text{NWC} + \beta_{12} \text{CAPEX} + e \dots \dots \dots (1)$$

What is meant by α in the equation above is a constant. The regression coefficient is described by $\beta_1 - \beta_{11}$, and the error is described by ϵ .

RESULTS

Descriptive Statistical Analysis. Table 2 shows the data processing results for descriptive statistical tests.

Table 2. Descriptive Statistical Test Results

	Mean	Median	Maximum	Minimum	Std. Dev.
CH	0.080	0.047	0.274	0.006	0.071
BS	5.677	5.000	10.00	3.000	1.969
BC	0.198	0.200	0.333	0.100	0.067
BM	17.862	12.000	60.000	8.000	13.120
AMT	6.123	6.000	13.000	4.000	2.516
AMB	3.015	3.000	4.000	3.000	0.124
MO	0.144	0.063	0.762	0.000	0.205
IO	0.612	0.712	0.990	0.016	0.277
FS	29.263	29.072	32.315	22.947	1.678
DAR	0.430	0.423	0.773	0.063	0.146
ROA	0.091	0.061	0.467	0.000	0.100
NWC	0.120	0.109	0.470	-0.269	0.176
CAPEX	0.034	0.018	0.340	-0.092	0.067

Source: Processed data (2023)

Cash holding has an average value of 0.080, greater than the standard deviation value of 0.071. The average cash holding value of 0.080 indicates that the sample company has an average amount of cash on hand of 8.00 per cent of total assets. Meanwhile, the minimum cash holding value of 0.006 indicates that the sample company has the lowest amount of cash on hand, 0.600 per cent of the total assets in the company. Then, the maximum cash holding value of 0.274 shows that the amount of cash in the hands of the sample company is the highest at 27.400 per cent of total assets.

Board size has an average value of 5.677, greater than the standard deviation of 1.969. The average value of the size of the board of directors shows that, on average, the sample company has a board of directors of 5 to 6 people. The sample company has the highest (maximum) number of directors of 10 people and the lowest (minimum) number of directors of 3 people.

The average score for the independent board of directors composition was 0.198, greater than the standard deviation of 0.067. The average value of the composition of the independent board of directors of 0.198 means that the sample company has an independent



board composition of directors of as much as 19.800 per cent of all existing boards of directors. The highest composition of independent boards of directors is 0.333, which means that the number of independent directors is at most 33.300 per cent of the total board of directors in the company. The composition of the lowest independent board of directors is 0.100 or at least 10 per cent of the total board of directors in the company.

The number of board meetings held by the board of directors in one year is at most (maximum) 60 times. The minimum number of board meetings is eight times a year. The number of board meetings had an average score of 17.862, greater than the standard deviation of 13,121. On average, the sample companies held 17.862 board meetings, 17 to 18 times a year.

The audit committee in the sample company held an average of 6.123 meetings, or as many as 6 to 7 times a year. The average value was 6.123, greater than the standard deviation of 2.516. Audit committee meetings are held at least four times a year, and the maximum number is 13 times a year.

The average number of audit committee members from the sample companies was 3.015. The average value is 3.015, greater than the standard deviation value of 0.124. The lowest (minimum) number of audit committee members is three, and the highest (maximum) number is four. Based on this data, it can be concluded that the sample company has fulfilled the provisions in POJK No. 55/POJK.04/015, which states that the minimum number of audit committee members is three people.

The average level of managerial ownership in the sample company was 0.144 or 14.400 per cent of all shareholdings in the sample company. The average value of managerial ownership was 0.144 less than the standard deviation value of 0.205. This value shows the high variation of managerial ownership data, which can be seen from the magnitude of the difference between the maximum value and the minimum value for managerial ownership. The highest managerial ownership (maximum) in the sample company was 0.762 or 76.200 per cent. Meanwhile, the lowest managerial ownership (minimum) is 0.000 or 0.000 per cent.

Share ownership by institutions in sample companies is an average of 61.200 per cent of all shareholders, greater than the standard deviation value of 0.277. The highest institutional ownership is 99.000 per cent of all shareholders. Meanwhile, the lowest institutional ownership was 1.60 per cent of all shareholders.

Multicollinearity Test Results. Table 3 summarises the results of r multicollinearity testing. Based on multicollinearity testing, it was found that all independent variables in this study were not correlated, as shown by the correlation coefficient's value being smaller than 0.800. So, there is no multicollinearity.

Table 3. Multicollinearity 2017 to 2021

	BS	BC	BM	AMT	AMB	MO	IO	FS	DAR	ROA	NWC	CAPEX
BS	1.000	-0.937	-0.285	-0.408	-0.107	-0.421	0.550	0.316	0.394	0.377	-0.424	-0.180
BC	-0.937	1.000	0.283	0.482	0.098	0.391	-0.478	-0.349	-0.245	-0.183	0.266	0.176
BM	-0.285	0.283	1.000	0.061	0.030	-0.043	-0.073	-0.039	-0.008	-0.019	-0.124	-0.099
AMT	-0.408	0.482	0.061	1.000	0.244	0.014	-0.260	0.007	-0.199	0.092	0.296	-0.153
AMB	-0.107	0.098	0.030	0.244	1.000	0.141	-0.214	-0.087	-0.063	-0.019	0.015	-0.093
MO	-0.421	0.391	-0.043	0.014	0.141	1.000	-0.883	-0.111	0.065	-0.174	-0.023	-0.057
IO	0.550	-0.478	-0.073	-0.260	-0.214	-0.883	1.000	0.141	0.038	0.344	-0.081	0.067
FS	0.316	-0.349	-0.039	0.007	-0.087	-0.111	0.141	1.000	0.296	0.207	-0.204	0.001



DAR	0.394	-0.245	-0.008	-0.199	-0.063	0.065	0.038	0.296	1.000	0.221	-0.709	-0.105
ROA	0.377	-0.183	-0.019	0.092	-0.019	-0.174	0.344	0.207	0.221	1.000	-0.193	-0.139
NWC	-0.424	0.266	-0.124	0.296	0.015	-0.023	-0.081	-0.204	-0.709	-0.193	1.000	-0.006
CAPEX	-0.180	0.176	-0.099	-0.153	-0.093	-0.057	0.067	0.001	-0.105	-0.139	-0.006	1.000

Source: Processed data (2023)

Estimation Model Selection. The data processing results for the Chow Test obtained a chi-square cross-section probability value of 0.000, which is lower than 0.050. The data processing results for the Hausman Test obtained a random cross-section probability value of 0.000, which is lower than 0.050. The fixed-effect model is the best estimation model.

Panel Data Regression Test Results. Based on the results of the regression test, the regression equation for this study can be described as follows:

$$\begin{aligned}
 CH = & 0.120 + 0.058*BS + 2.119*BC - 0.000*BM - 0.006*AMT - 0.059*AMB \\
 & - 0.355*MO - 0.064*IO - 0.007*FS - 0.428*DAR - 0.041*ROA - 0.694*NWC \\
 & - 0.152*CAPEX + \varepsilon \dots\dots\dots (2)
 \end{aligned}$$

Table 4. Regression Test Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.120	0.265	0.453	0.653
BS	0.058	0.021	2.730	0.009
BC	2.119	0.486	4.364	0.000
BM	-0.000	0.001	-0.340	0.736
AMT	-0.006	0.004	-1.643	0.108
AMB	-0.059	0.032	-1.845	0.073
MO	-0.355	0.282	-1.257	0.216
IO	-0.064	0.098	-0.656	0.516
FS	-0.007	0.003	-2.057	0.046
DAR	-0.428	0.088	-4.844	0.000
ROA	-0.041	0.145	-0.284	0.778
NWC	-0.694	0.133	-5.225	0.000
CAPEX	-0.152	0.064	-2.385	0.022
R-squared	0.926			
Adjusted R-squared	0.881			
F-statistic	20.753			
Prob(F-statistic)	0.000			

Source: Processed data (2023)

Table 4 shows the regression equation has a constant value of 0.120, which means that cash holdings will increase by 0.120 units if all board size (BS), independent board composition (BC), board meetings (BM), audit committee meetings (AMT), audit committee members (AMB), managerial ownership (MO), institutional ownership (IO), and all control variables are zero or unchanged.

The regression coefficient value for board size is 0.058, which means that cash holdings will increase by 0.058 units if the board size increases by 1 unit but with the condition that all other independent variables and all control variables are zero or fixed. This result has a significance level of 0.009, more diminutive than 0.050. Board size has a positive influence on determining cash holdings and has a significant effect. Thus, Ha1 in



this research can be accepted. An increase in the size of the board of directors will increase the amount of cash holdings.

The regression test results show that independent board composition has a positive regression coefficient value of 2.119 with a significance level of 0.000, lower than 0.05. It means that cash holdings will increase by 2.119 units if the independent board composition increases by 1 unit and all other independent variables and all control variables are zero or fixed. The results also indicate that increasing independent board composition has the potential to increase the amount of cash holdings significantly. Thus, Ha2, which states that independent board composition negatively influences cash holdings, cannot be accepted.

Board meetings have a coefficient value of -0.000, and then cash holdings will decrease by 0.000 units if the board meeting increases by 1 unit while other variables are zero or fixed. Board meetings have a negative regression coefficient value with a significance level of 0.736, which is greater than 0.050. This result can be interpreted as the fact that more meetings held by the board of directors will negatively influence cash holdings, but this influence is not significant. Thus, Ha3 in this study cannot be accepted.

The regression coefficient of audit committee meetings is -0.006, meaning that cash holdings will also decrease by 0.006 units if the meeting increases by 1 unit and other variables are zero or fixed. The research results show that audit committee meetings have a significance level greater than 0.050, namely 0.108. Based on these results, Ha5, which states that audit committee meetings positively influence cash holdings, is rejected. The research results show that the larger the audit committee meetings are, the more likely it is to reduce cash holdings, but it is insignificant.

Institutional ownership has a negative coefficient value of 0.064, so cash holdings will decrease by 0.064 units in institutional ownership conditions up by 1 unit, and all other variables have a zero value or fixed value. This result has a significance level of 0.516, greater than 0.050. Institutional ownership negatively influences cash holdings, but this influence is not significant. Thus, Ha6, which states that institutional ownership positively influences cash holdings, cannot be accepted.

The managerial ownership variable with a negative regression coefficient of 0.355 means that cash holdings will decrease by 0.355 units if managerial ownership increases by 1 unit and other variables are zero or fixed. Managerial ownership has a significance level of 0.216, which is more significant than 0.05. This value shows that managerial ownership has a negative but insignificant influence. Thus, Ha7, which states managerial ownership negatively influences cash holdings, cannot be accepted because the influence results are insignificant.

Table 4 shows the significance level for Test F of 0.000. This value is lower than 5 per cent, which means this study's regression model meets its feasibility. This value can also mean that together or simultaneously, all independent variables, namely board size, independent board composition, board meetings, audit committee meetings, audit committee members, managerial ownership, and institutional ownership, as well as all control variables, significantly affect the determination of cash holdings.

Table 4 shows an adjusted R^2 value of 0.881. This result shows that 88.100 per cent of cash holdings can be explained by all independent and control variables; 11.900 per cent was explained by other variables not tested in this study.



DISCUSSION

Effect of Board Size on Cash Holding. According to agency theory, supervision or control carried out by the board of directors will increase shareholder welfare (Abuhijleh & Zaid, 2023). Suppose the board of directors can control and supervise functions effectively. In that case, the board of directors can harmonise the relationship between management and owners in making decisions regarding cash. Therefore, the larger the board of directors, the more careful the board of directors will act regarding management decisions that may be detrimental to shareholders. So, it can impact increasing the amount of cash holdings, which will be used to improve shareholder welfare.

However, the larger size of the board of directors can indicate poor governance implementation because decision-making becomes inefficient so that the board of directors cannot carry out their supervisory duties adequately (Ferreira & Vicente, 2020) and has an impact on increasing the number of cash holdings (Cambrea et al., 2022). Based on the results of this study, which found that there was a positive influence of the size of the board of directors on determining the number of cash holdings, it can be concluded that the board of directors in this study has not been able to carry out their supervisory and control functions over management effectively and efficiently so that in the condition of the bigger board size, cash holdings will increase significantly.

The results of this research are in line with research conducted by (Azis et al., 2021; Cambrea et al., 2022; Gul et al., 2020; Hassanein & Kokel, 2019), who found that a larger number of board of directors members could potentially increase cash holdings. The results of this research are in contrast to the research of (Abuhijleh & Zaid, 2023; Ajanthan & Kumara, 2017; Ayed, 2022; Ezeani et al., 2023 and Talbi & Menchaoui, 2023), where their research found that cash holdings will decrease with the increasing number of members of the board of directors. Meanwhile, (Darma et al., 2021; Ferreira & Vicente, 2020; Kengatharan, 2017; Pranadita & Harymawan, 2020; Rafinda et al., 2018) found that board size did not have a significant influence on cash holdings.

Effect of Independent Board Composition Cash Holding. In agency theory, large amounts of cash holdings have the potential to give rise to opportunistic behaviour from company management (Hassanein & Kokel, 2019). Suppose the board of directors can carry out their functions effectively. In that case, a high proportion of independent board directors has the potential to reduce the amount of cash in the hands of the company (Abuhijleh & Zaid, 2023). However, this study found that the higher the independent board of directors composition, the higher the amount of cash holdings. These results indicate that the independent board of directors in this study has been unable to perform their supervisory function as actively as expected. This causes management supervision to be ineffective and impacts increasing the amount of cash holdings.

The results of this research support the results obtained by (Ferreira & Vicente, 2020; Hassanein & Kokel, 2019) where the greater the proportion of independent directors in the board of directors structure will increase the amount of cash holdings. The results of this research are in contrast to the research results of (Abuhijleh & Zaid, 2023; Cambrea et al., 2022; Pranadita & Harymawan, 2020; Talbi & Menchaoui, 2023) who found that a greater proportion of independent board of directors can reduce the amount of cash holdings. It is believed that an independent board of directors can prevent company management from making decisions about the amount of cash holdings that benefit management. The results of this study are also not in line with research by (Ahmed et al. 2018; Ajanthan & Kumara,



2017 Ayed, 2022; Gul et al., 2020; Kengatharan, 2017) who found that the proportion of independent board of directors was not a factor that had a significant influence on determining the number of cash holdings.

Effect of Board Meetings on Cash Holding. The board of directors supervises management decisions through meetings held by the board of directors and company management. Meetings are very important as part of the supervision process. Company management and shareholders have different preferences in the use of company cash. Through meetings, the board of directors can prevent management's opportunistic behaviour from making decisions that benefit them. In these meetings, it can be seen how the board of directors works effectively and efficiently.

Meetings held by the board of directors should positively impact the success of supervisory activities, which will reduce the amount of cash held (Hassanein & Kokel, 2019). The research results show that increased board of directors meetings will reduce cash holdings, but this effect is insignificant. Thus, the number of meetings held by the board of directors in this study is not a factor that will significantly influence management decisions in determining cash holdings.

The results of this research are in line with the results of research by (Ajanthan & Kumara, 2017; Hassanein & Kokel, 2019), who found that the frequency of board of directors meetings does not significantly influence determining cash holdings. This research does not support the results of (Abuhijleh & Zaid, 2022), who found that the greater the frequency of meetings between the board of directors and company management, the more cash holdings will decrease significantly. The results of this research are also different from research conducted by (Abuhijleh & Zaid, 2023; Ezeani et al., 2023), namely that cash holdings increase with the higher frequency of meetings held by the board of directors.

Effect of Audit Committee Members on Cash Holding. In POJK No. 55/POJK.04/015 states that the audit committee members consist of at least three people. The small or large number of audit committee members will affect the effectiveness of the supervisory role carried out by audit committee members. Too few audit committee members have the potential to reduce the supervisory role, thereby opening up opportunities for management to use cash holdings for its purposes. However, too many audit committee members could cause inefficiency in the implementation of supervision by the audit committee. The research results show that the greater the number of audit committee members, the more cash holding has the potential to decrease, but with an insignificant level of influence. Thus, the number of audit committee members in this study is not a factor that can influence the determination of cash holdings.

The results obtained in this study cannot support the research conducted by (Hassanein & Kokel, 2019), which found that the greater the number of audit committee members, the greater the decrease in cash holdings. These results are also different from those of (Kengatharan, 2017), who found that more audit committee members will increase the company's cash holdings.

Effect of Audit Committee Meetings on Cash Holding. In POJK No. 55/POJK.04/015 states that the audit committee is obliged to hold meetings at least once every three months or the audit committee is obliged to hold meetings at least four times. Through meetings, the audit committee can demonstrate its supervisory role over management, increasing the number of cash holdings and preventing management from making decisions about using cash in its interests. Therefore, more meetings held by the audit committee will increase the cash held. However, this research found that more



meetings held by the audit committee affected the reduction of cash holdings, but it did not have a significant effect.

The results of this research support the research results of (Kengatharan, 2017), which found that meetings held by the audit committee did not influence the determination of the amount of cash in the hands of the company. The findings in this study are in line with the results for audit committee members who also do not have a significant influence on determining the amount of cash holdings. Based on these results, it can be concluded that the sample company's audit committee still needs to carry out supervisory functions as expected according to POJK No. 55/Noc 55/POJK.04/015.

t of Institutional Ownership on Cash Holding. Institutional ownership is generally the shareholder with the most significant proportion of ownership. The data processing results show that the average share ownership by institutions in sample companies is 61.200 per cent, and the highest is 99.000 per cent. Based on these results, institutional ownership in this research should have a strong supervisory role on management so that it has the potential to increase the amount of cash holdings. However, the research results indicate the opposite effect, where greater institutional ownership in the company has the potential to reduce the amount of cash holdings but with an insignificant effect. Based on these results, institutional ownership in the sample companies has yet to carry out the expected supervisory function. Apart from that, it can be assumed that institutional ownership in the sample companies has its agenda of not holding large amounts of cash on hand but wanting the funds in the company to be used for investment activities that benefit all stakeholders.

Based on the results of data processing, the results of this research are in line with the research of (Alghadi et al., 2021; Cambrea et al., 2022; Darma et al., 2021), who found that institutional ownership does not have a significant influence in determining cash holdings. The results of this research differ from those (Al-Najjar & Clark, 2017; Mawardi & Nurhalis, 2018), whose research found that a greater percentage of institutional ownership can significantly increase cash holdings.

Effect of Managerial Ownership on Cash Holding. In agency theory, managerial ownership is a governance mechanism that will reduce conflicts of interest between management and shareholders. Agency costs will be reduced if managerial ownership can align the interests of each party. Based on the research results, managerial ownership in the sample company can influence reducing cash holdings, but the impact of this influence is not significant. The negative influence of this research is that managerial ownership can take opportunistic actions to make decisions to utilise company assets for its interests (Mawardi & Nurhalis, 2018). Thus, it can be concluded that although managerial ownership in the sample company reduces cash holdings, this effect is insignificant, indicating that managerial ownership is not a factor that influences the determination of cash holdings.

The results of this study are not in line with research conducted by (Ahmed et al., 2018 Mawardi & Nurhalis, 2018 Talbi & Menchaoui, 2023), who found a negative and significant relationship between managerial ownership and cash holdings, meaning that greater managerial ownership will significantly reduce cash holdings. The results of this study are in contrast to the research of (Alghadi et al., 2021), who found that greater managerial ownership will increase cash holdings.

Control Variables. The data processing results in this study show that size, leverage (DAR), net working capital, and capital expenditure have negative coefficient values and a significant influence. Meanwhile, profitability (ROA) has a negative coefficient value but with an insignificant influence.



As a control variable, the larger the company size, the amount of cash in the company's hands will decrease significantly. These results are not in line with research by (Abuhijleh & Zaid, 2023; Ajanthan & Kumara, 2017; Darma et al., 2021; Ezeani et al., 2023; Kengatharan, 2017) who found that the larger the company size, the amount of cash in the company's hands increases significantly.

Leverage as a control variable has a negative coefficient on cash holdings and has a significant influence. These results may indicate that increased leverage will reduce cash holdings because existing cash is used to meet the company's liquidity needs. The findings in this study support the findings in research by (Abuhijleh & Zaid, 2023; Ahmed et al., 2018; Cambrea et al., 2022; Ezeani et al., 2023; Hassanein & Kokel, 2019), namely that increasing leverage can reduce cash holdings.

As a control variable, probability has a negative coefficient value and an insignificant effect. These results indicate that an increase in ROA does not affect the determination of cash holdings. This study's results differ from the findings of (Abuhijleh & Zaid, 2023) and (Cambrea et al., 2022), which state that an increase in profitability will increase cash holdings.

Net working capital as a control variable has a negative coefficient value with a significant effect. This means that cash holdings will decrease significantly the greater the value of the net working capital owned by the company. Net working capital is considered to replace the need for cash because it takes little time to convert into cash. These are the research results of (Zaid 2023; Cambrea et al., 2022), who found that cash holdings will decrease if the company has high net working capital.

The research results show that capital expenditure has a negative coefficient value and a significant influence. As a control variable, an increase in capital expenditure will significantly reduce cash holdings because the cash will be used to finance the capital expenditure. This finding aligns with the research results of (Hassanein & Kokel, 2019; Talbi & Menchaoui, 2023), who found that increasing capital expenditure reduces cash holdings.

CONCLUSION

The research results show that together, all the independent variables are board structure, which is proxied by board size, independent board composition, and board meetings; audit committee, which is proxied by audit committee meetings and audit committee members; ownership structure, proxied by institutional ownership and managerial ownership; together with the control variables firm size, leverage profitability, net working capital, and capital expenditure significantly influence the determination of cash holdings.

Partially, board structure, as proxied by board size and independent board composition, has a positive and significant influence, meaning that an increase in the number of boards of directors and the proportion of independent boards of directors will significantly increase cash holdings. Meanwhile, board meetings have an insignificant negative influence, meaning that an increase in the number of meetings held by the board of directors does not affect the amount of cash holdings.

The audit committee, proxied by its meetings and members, has a negative and insignificant influence. It can be concluded that an audit committee in the sample company does not influence management decisions regarding cash holdings. This condition also



indicates that the audit committee needs to carry out its supervisory role effectively because it does not influence the determination of cash holdings.

The ownership structure, as proxied by institutional ownership and managerial ownership, has an insignificant negative influence. This result means that an increase in the level of institutional ownership and managerial ownership in the sample company has the potential to reduce cash holdings, but this effect is not significant.

The role of several financial performances as control variables shows that firm size, leverage, net working capital, and capital expenditure have a negative and significant influence. An increase in leverage, net working capital, and capital expenditure will reduce cash holdings significantly. Meanwhile, profitability has an insignificant negative influence on cash holdings.

All independent and control variables tested in this research can influence cash holdings by 88.100 per cent. This means that 11.900 per cent of management decisions regarding cash holdings are still influenced by factors not proxied in this research. For future research, tests can include financial performance and other governance factors in determining cash holding.

The findings in this research were obtained from the data processing results for the observation period from 2017 to 2021. This research did not include the pandemic factor in 2020 and 2021, where these conditions significantly impacted the manufacturing companies' operations. For further research, testing can be carried out by including the impact of the COVID-19 pandemic. This research can also be expanded by adding additional years of observation, conducting different tests on conditions before and during the COVID-19 pandemic, or changing sample companies outside manufacturing companies.

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