

# The Effect of Characteristics of Directors on Cash Holdings in Small and Medium Enterprises

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**Abstract-** The purpose of this study was to see the effect of the characteristics of directors on cash holdings in small and medium enterprises of 20 companies listed on the pefindo25 index during the 2017-2021 period. This study uses the Panel Data Regression method to examine the effect of independent variables (board size, board independence, board gender) on cash holdings. The results of the study found that board size had no significant effect on cash holdings, board independence had a negative and significant effect on cash holdings, and board gender had a positive and significant effect on cash holdings. The implication for financial managers is to choose competent board members and financial managers can recruit women boards because women are always careful in making decisions, while investors can see the proportion of board independence and the number of women boards which can increase board efficiency and minimize risk so that the company holds the optimal amount of cash.

**Index Terms-** Cash Holdings, Board Size, Board Independence, Board Gender

## I. INTRODUCTION

Business development in Indonesia is experiencing very rapid growth. This development can be seen from the many emerging manufacturing industries. According to the Ministry of Investment, the manufacturing industry made a major contribution to Indonesia's economic growth of 7.07% in the second quarter of 2021, with growth of 6.91% amid the pressure of the COVID-19 pandemic. Meanwhile, in the third quarter of 2021, the manufacturing industry grew 3.68% and contributed 0.75% to Indonesia's economic growth. The rapid development of the economy makes companies more competitive to maintain their existence.

Companies are required to have a good management system within the company, including cash management owned by the company (Kusumawati et al., 2020). Proper cash management is an important consideration every business does as the amount of cash they hold can affect the health of the business itself (Umry, 2018).

Managers face difficult financial decisions when determine the amount of cash available (Khalifah Aizyadat, 2022a). Companies that hold too little cash will have difficulty meeting their short-term needs. Meanwhile, holding too much cash will make it difficult to carry out business activities with maximum results resulting in losses for the company because optimal profits are not achieved. This can occur when an agency conflict puts the majority and minority shareholders at odds. Companies keep cash reserves to take advantage of investment opportunities in profitable projects and get positive returns for shareholders (Ismail et al., 2022a).

Positive agency theory states that increased shareholder value is driven in part by strong oversight by elected directors. The board has direct access to a wide range of information on the company's strategic management, allowing it to properly monitor company performance and ensure the quality of information disclosed to the market (Boubaker et al., 2015).

How well directors perform their duties largely determines the effectiveness of the board in making company decisions and creating shareholder value (Chou & Feng, 2019). The board of directors is responsible for cash management and corporate governance matters. Board size can lead to higher cash holdings which can eventually lead to agency problems. Directors may not work in the best interests of shareholders (Jamil et al., 2016). The Board of Directors must distribute funds by including cash for operational activities and cash reserves which are useful as precautionary funds and additional funds for making investments (Romadhoni et al., 2017).

Board independence is a key factor in the quality of board oversight of management. According to agency theory, boards with a high proportion of board independence are considered to be more effective in supervising managers to serve the best interests of owners (T.F. Abuhijleh & A.A. Zaid, 2022). (Boubaker et al., 2015) states that the company's cash holdings have decreased with the proportion

of independent members on the board of directors, which can be concluded that effective board independence is related to managing the company's cash holdings.

Board gender is considered as a key factor contributing to the quality of corporate governance where several corporate governance codes in developed countries emphasize the importance of gender diversity to avoid problems arising from like-minded individuals and thereby increase board effectiveness (Yousef Alghadi et al., 2019a). According to the tradeoff theory, which is based on the cost-benefit tradeoff, companies with more women on their board of directors tend to hold the optimal amount of cash (Khalifah Aizyadat, 2022a).

The limitations of this study are the small and medium enterprises listed on the pefindo25 index. One of the criteria for SMEs included in the pefindo25 index is that their total assets do not exceed IDR 5,000,000,000,000. This study aims to see the effect of the characteristics of the directors on cash holdings in small and medium companies listed on the pefindo25 index.

## II. LITERATUR REVIEW

### 2.1 Board size

Several studies analyze the relationship between cash ownership and corporate governance. Research conducted by Khalifah Aizyadat, (2022) using a sample of 87 non-financial companies including industrial and service companies listed on the Amman Stock Exchange from 2018 - 2020 shows that board size has a negative effect on cash holdings.

According to Mengyun et al., (2021) the quality of a company's board may also depend on the number of directors on the board. Larger board sizes make the decision-making process slower which can increase agency problems. Smaller board size leads to minimization of agency conflicts. The results of his research prove that board size has a significant positive relationship with cash holdings. The same thing was stated from the results of research conducted by Ahmed Sheikh & Imran Khan, (2015); Kusumawardani et al., (2021) showed that board size has a positive and significant relationship to cash holdings.

### 2.2 Board independence

Board independence reduces managerial oversight, increases oversight so that agency conflicts are reduced. In addition, it also increases the efficiency of the board of directors in running the business. Board independence ensures that the company has invested its funds properly. Cash ownership by companies will be influenced by corporate governance (Masood & Shah, 2014). In research conducted by Ahmed Sheikh & Imran Khan, (2015) showed that board independence has a positive effect on cash holdings.

### 2.3 Board gender

The gender board continues to attract considerable research attention. In the past, many countries around the world have enacted gender quota laws requiring the appointment of female directors to strengthen corporate governance on the board of directors (Ismail et al., 2022). According to the tradeoff theory, which is based on the cost-benefit tradeoff, companies with more women on their board of directors tend to hold the optimal amount of cash Khalifah Aizyadat, (2022). The gender board in research Khalifah Aizyadat, (2022) has a positive relationship to cash holdings.

### 2.4 Conceptual Framework

Board size is said to affect cash holdings. Previous research conducted by Khalifah Aizyadat, (2022) found that board size has a negative and significant effect on cash holdings. Meanwhile, in the research of Ahmed Sheikh & Imran Khan, (2015); Kusumawardani et al., (2021) shows that board size has a positive and significant effect on cash holdings. Board independence from the research results of Ahmed Sheikh & Imran Khan, (2015) shows that board independence has a positive effect on cash holdings. In contrast to the results of Kusumawardani et al., (2021); Mengyun et al., (2021) shows that board independence has a negative effect on cash holdings. The gender council as a result of research Khalifah Aizyadat, (2022) has a positive relationship to cash .

Therefore, based on the explanation above, the conceptual framework in this study is described as follows:

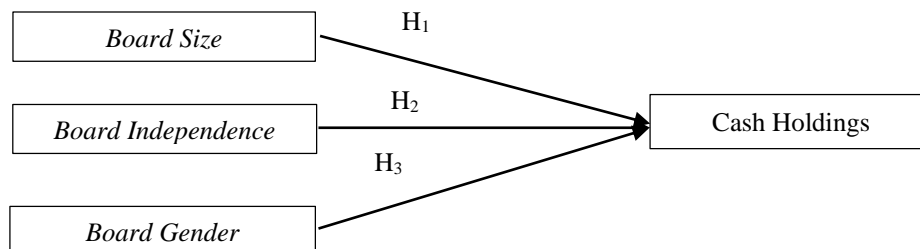


Figure 1. Conceptual Framework

### 2.5 Hypothesis Development

Based on the research results of Ahmed Sheikh & Imran Khan, (2015); Kusumawardani et al., (2021) shows that board size has a positive and significant effect on cash holdings which implies the higher the number of boards of directors, the higher the company's cash holdings. This is different from the results of Khalifah Aizyadat, (2022) that board size has a negative and significant effect on cash holdings. Based on this, the first hypothesis is formulated as follows:

**H<sub>1</sub> : Board size has an effect on cash holdings**

Based on the research results of Kusumawardani et al., (2021); Mengyun et al., (2021) shows that board independence has a negative effect on cash holdings. Meanwhile, the results of the research by Ahmed Sheikh & Imran Khan, (2015) dan Khalifah Aizyadat, (2022) state that board independence has a positive effect on cash holdings, which indicates that board independence on the board encourages management to maintain sufficient cash, not only to support operating activities but also to satisfy contractual claims when due. Based on this, the second hypothesis is formulated as follows:

**H<sub>2</sub> : Board independence has an affect on cash holdings.**

According to the research results of Khalifah Aizyadat, (2022); Mengyun et al., (2021); Yousef Alghadi et al., (2019) show that board gender has a positive effect on cash holdings where companies with many women on the board of directors tend to hold more optimal cash. Based on this, the third hypothesis is formulated as follows:

**H<sub>3</sub> : Board gender has an effect on cash holdings**

## III. RESEARCH METHODS

### 3.1 Sampling Method

The data collection method used is the secondary data collection method, where the data is obtained from sources that have published the data. Data sources were obtained from the website of the Indonesia Stock Exchange (<https://www.idx.co.id>) or the official website of each company that was sampled. The sampling method used for this research is purposive sampling. The sample for this study includes small and medium-sized companies that have been listed on the Pefindo 25 index for the last 5 years (2017-2021). Samples were obtained as many as 20 companies.

### 3.2 Variables Measurement

The measurement of the variables used in this study intends to determine the relationship between the independent variables and the dependent variable, each of which is measured in Table 1 below.

Table 1. Variable Measurement

Variable Type	Variable Name	Symbol	Measurement	Reference
Independent Variable	Cash Holding	CASH	$\frac{\text{Cash and Cash equivalents}}{\text{Net Assets}^*}$ *net assets = total assets – cash and cash equivalent	Ahmed Sheikh & Imran Khan, (2015)
	Board Size	BSIZE	Number of board of directors at the last of fiscal year.	Khalifah Aizyadat, (2022)
Dependent Variable	Board Independence	BIND	$\frac{\text{Number of independent directors on the board}}{\text{Entire board of directors}}$	Khalifah Aizyadat, (2022)
	Board Gender	BGEN	Number of female directors on board	Khalifah Aizyadat, (2022)

### 3.3 Equation

To determine the effect of the board of directors on cash holdings, the following regression model is used:

$$CASH_{it} = \beta_0 + \beta_1 BSIZ_{it} + \beta_2 BIND_{it} + \beta_3 BGEN_{it} + \varepsilon_{it}$$

Where :  
 CASH : Cash Holdings  
 BSIZ : Board Size

*BIND* : Board Independence

*BGEN* : Board Gender

#### IV. RESULT AND DISCUSSION

##### 4.1 Descriptive Statistics Analysis

The results of descriptive statistics are presented in table 2. Cash holdings (CASH) have an average value of 0.115361, a median of 0.080224, and a standard deviation of 0.109539. The maximum value of CASH is 0.483768 which is owned by PT Surya Citra Media Tbk and the minimum value is 0.004314 which is owned by PT. Integra Indocabinet Tbk. Board size (BSIZE) has an average value of 5.290000, a median of 5.000000, and a standard deviation of 2.080671. The maximum value of BSIZE is 10.000000 which is owned by PT Tempo Scan Pacific Tbk and the minimum value is 3.000000 which is owned by Saranacentral Bajatama Tbk, PT Hartadinata Abadi Tbk, PT Kresna Graha Investama Tbk, PT Mark Dynamics Indonesia Tbk, PT Sillo Maritime Perdana Tbk.

Board independence (BIND) has an average value of 0.185730, a median of 0.200000, and a standard deviation of 0.116091. The maximum value of BIND is 0.666667 which is owned by PT Sillo Maritime Perdana Tbk and the minimum value is 0.000000 which is owned by Saranacentral Bajatama Tbk in 2021, PT Hartadinata Abadi Tbk in 2020-2021, KMI Wire and Cable Tbk in 2021, PT Kresna Graha Investama Tbk in 2020-2021, Lippo Cikarang Tbk in 2020-2021. The gender board (BGEN) has an average value of 1.650000, a median of 1.000000, and a standard deviation of 1.266308. The maximum value of BGEN is 6,000000, which is owned by PT Tempo Scan Pacific Tbk. and a minimum value of 0.000000 which is owned by Saranacentral Bajatama Tbk in 2021, PT Garuda Metalindo Tbk in 2017, Jasuindo Tiga Perkasa Tbk in 2017-2019, Lippo Cikarang Tbk in 2020, and PT Mark Dynamics Indonesia Tbk in 2017.

Table 2. Descriptive Statistics

	Mean	Median	Maximum	Minimum	Std. dev
CASH	0.115361	0.080224	0.483768	0.004314	0.109539
BSIZE	5.290000	5.000000	10.00000	3.000000	2.080671
BIND	0.185730	0.200000	0.666667	0.000000	0.116091
BGEN	1.650000	1.000000	6.000000	0.000000	1.266308

Source : Data processed using E-views 9

##### 4.2 Data Panel Regression Analysis

There are stages in testing the regression model in this study which are described as follows:

###### 4.2.1 Test Specification Models

The Chow test produces a chi-square cross-sectional probability value of  $0.0000 < 0.05$ , meaning that the most appropriate model is the fixed effect. Determination of the fixed effect requires a follow-up test, namely the Hausman test.

The Hausman test produces a random cross-sectional probability value of  $0.1559 > 0.05$ , meaning that the most appropriate model is the random effect. Determination of random effect requires a follow-up test, namely the LM test.

The LM test produces a Breusch-pagan cross-sectional probability value of  $0.0000 < 0.05$ , meaning that the most appropriate model is the random effect.

###### 4.2.2 Goodness of Fit Test ( $R^2$ )

Based on the results of the goodness of fit test, the adjusted R-squared value was 0.081535. This means that the independent variables namely board size, board independence, and board gender are able to explain cash ownership of 8.1535% and the remaining 91.8465% explain that cash ownership can be influenced by other factors that are not present in this model. Thus, the effect of board size, board independence, and board gender is very weak.

###### 4.2.3 F-Test

Based on the simultaneous test results, it can be seen that the probability of the F-statistic produces a value of  $0.010811 < 0.05$ . This means that board size, board independence, and board gender have an influence on cash holdings so that the regression model is appropriate to use in this study.

##### 4.3 Regression Analysis

Table 3 presents the results of the estimation of the influence model of each independent variable, namely board size, board independence, and board gender on the dependent variable, namely cash holding, as follows:

Table 3. Individual Test Result (T-Test)

Variabel Independen	Variabel Dependen		
	CASH		
	Koefisien	Profitabilitas	Kesimpulan
Konstanta	0.071366	0.1096	-
BFSIZE	0.004656	0.5766	Tidak Signifikan
BIND	-0.133083	0.0804*	Negative Signifikan
BGEN	0.026715	0.0436**	Positif Signifikan

Source : Data processed using E-views 9

\*Signifikan 10% ; \*\*Signifikan 5%

The panel data regression model can be written as follows:

$$CASH = 0.071366 + 0.004656BFSIZE - 0.133083BIND + 0.026715BGEN$$

Where :

*CASH* = Cash Holding

*BFSIZE* = Board gender

*BIND* = Board independence

*BGEN* = Board gender

#### 4.3.1 Board size has an effect on cash holding

Based on table 3, board size has a probability value of 0.5766 > 0.05 which shows no significant effect. The results of this study concluded that there was no significant effect between board size on cash holdings. The results of this study are in line with the research of Verotera Mulia & Yuniarwati, (2022) and Romadhoni et al., (2017) which state that board size has no significant effect on cash holdings. This is because the large or small number of the board of directors does not affect the strict supervision of cash holdings. This research is not in line with Khalifah Aizyadat, (2022) who states that board size has a negative effect on cash holdings.

#### 4.3.2 Board independence has an effect on cash holding

Based on table 3, board independence has a probability value of 0.0804 < 0.1 which shows a significant effect. The magnitude of the coefficient is -0.133083. These results conclude that there is a negative and significant effect of board independence on cash holdings. The results of this study are in line with the results of the studies of Kusumawardani et al., (2021) and Mengyun et al., (2021) which obtained a negative and significant effect of board independence on cash holdings. Less information asymmetry results from greater board independence, and firms are able to obtain external financing as external finance providers are attracted to greater board independence, thereby reducing the need for cash. This research is not in line with Khalifah Aizyadat, (2022) who states that board independence has a positive effect on cash holdings.

#### 4.3.3 Board gender has an effect on cash holding

Based on table 3, the gender board has a probability value of 0.0436 < 0.05 which shows a significant effect. The magnitude of the coefficient is 0.026715. The results of this study conclude that there is a positive and significant effect between board gender on cash holdings. The results of this study are in line with the results of Khalifah Aizyadat, (2022); Mengyun et al., (2021) and Yousef Alghadi et al., (2019). Board gender contributes to corporate governance to avoid problems that arise so as to increase board effectiveness (Yousef Alghadi et al., 2019). According to the tradeoff theory, companies with more women on the board tend to hold more optimal amounts of money (Khalifah Aizyadat, 2022).

## V. CONCLUSION

Based on the results of the tests performed, it can be concluded as follows:

1. The characteristics of the directors as measured by board size have no significant effect on cash holdings.
2. The characteristics of the directors as measured through board independence have a negative and significant influence of cash holdings.
3. The characteristics of the directors as measured through the gender board have a positive and significant influence on cash holdings.



## VI. IMPLICATION

Based on the results of a survey conducted, there are benefits for financial managers and investors that can be considered in making decisions. Some of the results obtained are:

### a. For financial managers

Finance managers should limit independent boards by electing competent board members so that boards of directors are more effective in supervising managers to serve the best interests of owners and finance managers can increase the number of women board directors because women are always careful in making decisions that minimize risk.

### b. For investors

Investors may view companies with low independent boards as associated with high cash holdings and high female directors as associated with high cash holdings. Therefore, an optimal proportion of independent boards can increase the efficiency of the board of directors and the company's cash can be managed properly. A high proportion of female directors on the board in the company can minimize the problems that arise so as to increase the effectiveness of the board and hold the optimal amount of cash.

## VII. LIMITATION AND SUGGESTIONS

Based on the results of the research that has been done, this study has several drawbacks, namely the independent variables in this study are only limited to board size, board independence, and board gender. Future studies are expected to find novelty in measuring independent variables or adding variables, so that the data used to explain Cash holdings become more complex. The variable that can be added is leverage (Verotera Mulia & Yuniarwati, 2022)

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