

# Corporate Governance and Cash Holdings: Empirical Evidence from an Emerging Country, Sri Lanka

Alagathurai Ajanthan (Corresponding author)

Lecturer, Department of Accounting, University of Jaffna

Jaffna, Sri Lanka

E-mail: [ajanthan198703@gmail.com](mailto:ajanthan198703@gmail.com)

KGA Udhaya Kumara

Faculty of Management Studies, Rajarata University of Sri Lanka

Mihintale, Sri Lanka

Received: September 25, 2017 Accepted: October 14, 2017 Published: November 12, 2017

doi:10.5296/ijafr.v7i2.12137

URL: <https://doi.org/10.5296/ijafr.v7i2.12137>

## **Abstract**

This study examines the influence of corporate governance practices on cash holdings of Sri Lankan listed companies. It develops hypotheses about the relationship between cash holding and corporate governance practices such as size, frequency of meetings, independence, independent chair and gender diversity. Using multiple regression analysis on data collected from the corporate annual reports of 90 listed companies, the study finds that corporate governance practices such as board size and gender diversity have a significant negative influence on cash holdings as well as independent chair has a significant positive influence on cash holdings. However, there is no evidence that board meetings affect cash holding in Sri Lankan companies. The study contributes to the literature on the factors that make variation in the amount of cash holding of the listed company and it may be useful for financial managers, business analyst, financial controller, operations managers, investors, financial management consultants and other stakeholders.

**Keywords:** corporate governance, cash holding, colombo stock exchange

## 1. Introduction

Cash is the most liquid asset and is a measure of a corporation's ability to pay its bills on time. Although holding of cash is important to pay off obligations, idle cash does not earn anything. However, firms need to build up cash reserves by ensuring that the timing of cash movements creates an overall positive cash flow situation. Thus, an optimal level of cash based on the firm's needs is the essential ingredient that enables a business to survive and prosper (Gill and Shah, 2012).

It has always been a critical problem in a company to decide an appropriate amount of cash for day-to-day operation of the business. Cash provides liquidity to firms and is an important component of a firm's current assets. Firms have the enticement to hold cash to ensure the operations, meet short term obligations and pick the good investment opportunities. Cash also acts as a buffer to stop high opportunity costs during cash shortage (Opler, Pinkowitz, Stulz and Williamson, 1999 and Ozkan & Ozkan, 2004). Opler et al., (1999) identify that companies with good investment opportunities and high cash flow risks tend to hold more cash. The huge amount of cash holding (hereafter CH), however, may result in agency problems of free cash flow as managers can get private benefits easily (Jensen, 1986). Weak governance mechanism further triggers managers to hold more cash, which may cause imprudent overinvestment like expensive acquisitions, and subsequently have negative effect on the shareholders' wealth (Dittmar, Mahrt-Smith & Servaes, 2003 and Jensen, 1986).

Cash is one of the most susceptible to malicious behavior by management (Isshaq, Bokpin and Onumah, 2009). CHs are funds readily available for investment in physical assets and for distribution to investors. According to Keynesian theories of the demand for money, firms hold cash for precautionary, speculative, and transactional motives. Transaction motive refers to cash which is held for day to day transactions to pay for goods or services. Precautionary motive states to cash held for safety reasons to protect the firm from for unexpected fluctuations. The speculation motive says firms' desire to hold cash balance in order to take benefits of any bargain purchases that may arise (Besley and Brigham, 2005 and Gill and Shah, 2012). Excessive cash in corporate accounts is not necessarily in favor of the firm and this needless cash may be built up because of weak corporate governance (hereafter CG). Tradeoff theory, pecking order theory, and free cash flow theory usually explain the pattern of cash holdings. Firms, according to tradeoff theory, set their optimal level of cash holdings by weighting the marginal costs and marginal benefits of holding cash (Afza & Adnan, 2007). The advantages of cash holding are, reduction in the possibility of financial distress, allowing the pursuance of investment policy when financial restraints are met and minimization of the costs of raising external funds or liquidating existing assets (Ferreira & Vilela, 2004).

The cost of having more cash as reserve is the opportunity cost of the amount invested in short-term investments. According to Myers (1984) theory of pecking order, a firms first prefer to finance investments with retained earnings or internal fund (i.e. cash available), then with different debts and finally with external equity in order to minimize asymmetric information costs and other financing costs. According to Afza and Adnan (2007), maintaining an appropriate level of liquidity within the organization is vital for smooth

operations of a company. The amount of cash a firm maintains is characterized by its policies regarding working capital requirements, cash flow management, dividend payments, investment, and asset management (Opler et al., 1999). The board of directors and the chief executive officer are responsible person and also play key role in formulating different policies related to cash, dividend, inventory, investment etc. The policy to maintain huge amount of cash as reserve in a firm may reflect management's own risk aversion and it may cause an agency problem of not maximize shareholders' wealth (Gill and Shah, 2012). By managing cash effectively, shareholders can maximum their yield on their investment. Poor corporate governance might have adverse consequences for cash management (Harford, Mansi and Maxwell, 2008).

In line with above statement, the purpose of this study is to empirically examine the impact of corporate governance practices (hereafter CGPs) on companies' cash holdings by using a sample of publicly listed companies in Sri Lanka for the time period of five years from 2011/12 to 2015/16. So far knowledge concern, there are a very few studies that investigated the impact of CGPs on firms CH. Drobetz and Gruninger (2007) tested the relationships between board size, CEO duality, and cash holdings by collecting data from Switzerland. Gill and Mathur (2011) and Gill and Shah (2012) investigated the impact of CEO duality and board size on cash holdings and corporate liquidity by collecting data from Canadian firms. Gill and Biger (2013) examined the impact of CEO duality, board size, CEO tenure and audit committee on CH by using data from American manufacturing firms, yet not detailed research work has been done especially among SARC countries firms. Following Gill and Biger (2013), this study used board size, board independence, CEO duality, gender diversity and board meetings as the CGPs. The data was obtained from annual report of each company listed at Colombo Stock Exchange (CSE), Sri Lanka.

### *1.1 Statement of the Problem*

Strong CG is an important especially with the recent global financial crisis in order to ensure sound financial management and to deal with uncertainties that characterize future business incidents. Efficient financial management is very crucial for creating competitive advantage and it requires a company to make good decisions regarding long-term and short-term capital and to maintain solvency and liquidity (CPA Australia, 2010).

The determination of amount of CH is very crucial management decision for a company and the level of CH is usually linked with growth opportunities, investment levels, cash flow, research and development expenditure, company size, leverage, working capitals, and dividend distribution (Kusnadi, 2011). According to Keynes (1934), companies' main motive to hold cash in order to reduce the transaction costs of financing, avoid disposal of assets due to a sudden need of cash and to ensure companies to have profitable investment opportunities, instead of dropping investment interests due to the deficiency of cash holdings. Inefficient investment is resulted from insufficient liquidity.

In a developed market, there is no reason for companies to hold huge amount of cash as reserve, because in such a developed market they can easily transfer assets to cash or get funded at a fair cost immediately when they need cash. However, the under developed market

because of transaction costs and asymmetric information provides rationale for companies to hold cash as reserve (Couderc, 2006).

Despite, holding large amount of cash may cause conflict of interest between management and shareholders of a firm (Jensen and Meckling, 1976). The agency theory indicates that company directors prefer to reserve cash rather than distribute dividends to shareholders as turning cash into personal benefits is relatively easier than getting benefit from other less liquid assets to managers (Myers and Rajan, 1998). As we all know, the ultimate goal of a business is to maximizing shareholders wealth and act in the best interest of all stakeholders. In order to achieve that goal, the CG system is used to make sure that the management of the company can run the company in the best interest of all stakeholders. Because shareholders are part of stakeholder, therefore the good CG system can minimize cost of self-interest and also reduce the agency problem of managers and shareholders of the company. On the other hand poor CG may lead to hold excessive cash as reserve in a firm.

Even though larger cash holdings increases internal financial flexibility by reducing the costs associated with external financing, managers may pursue private benefits of control by holding excessive cash and overspending cash on value destroying projects (Jensen, 1986). It is found that there was tendency of corporate managers in mature companies to retain excess cash instead of paying it out to shareholders and waste it on value reducing projects such as diversifying acquisitions or other low return expenditure. For example, Harford, Mansi and Maxwell (2008) found evidence that firms with high cash levels and worse expected governance spend their cash more quickly, primarily on acquisitions.

Harford et al. (2008) argue that companies with poor corporate governance are relatively have small amount of cash due to managers spend cash quickly in unnecessary purchase or investment to advantage themselves in a short term. In light of these inconclusive results from controversial arguments, this study intended to answer the research question of “Do corporate governance practices impact on cash holdings of listed Sri Lankan companies”

### *1.2 Research Objectives*

Research objective can be stated as follows:

#### **Primary Objective:**

- To examine the impact of corporate governance practices on cash holdings of listed companies in Sri Lanka.

#### **Secondary Objective:**

- To identify the relationship between corporate governance practices and cash holdings of listed companies in Sri Lanka.

## **2. Literature Review and Hypotheses Development**

According to Cossin and Hricko (2004), CHs allow for optimal timing of an investment and avoids the underpricing issue. However, holding excessive cash does not necessarily make good business sense. Therefore, strong CG is necessary to create and maintain sound CH

policies. The holding and increasing of net working capital tie up money used for financing net working capital. If net working capital increases, the firm must utilize and tie up more money, and this decreases free cash flows. Production level growth necessitates increased levels of cash, inventories and accounts receivable (Michalski, 2008). Although having some cousin of cash and inventory help firms' smoothing operations, building unnecessary working capital backfires. Paying accounts payable after the due date also hurts the firm because of the penalty charged by suppliers. Building unnecessary working capital is also not in favor of the firm because it has a negative impact on shareholders' wealth. Therefore, an optimal working capital management policy is necessary for the firm.

Dittmar, Mahrt-Smith & Servaes (2003) collected a sample of more than 11,000 firms from 45 countries and found that corporations in countries where shareholders' rights are not well protected hold up to twice as much cash as corporations in countries with good shareholder protection. They also found that when shareholder protection is poor, factors that generally drive the need for cash holdings, such as investment opportunities and asymmetric information, actually become less important. In addition, the study found that firms hold larger cash balances when access to funds is easier and further stated that agency problems are important determinants of corporate cash holdings. Therefore, strong CG is necessary.

Drobetz and Gruninger (2007) investigated the determinants of cash holdings for a comprehensive sample of 156 Swiss non-financial firms between 1995 and 2004 and they found a positive relationship between CEO duality and corporate cash holdings and a non-significant relationship between board size and corporate cash holdings. That is, CEO duality leads to significantly higher cash holdings and larger board size has no impact on corporate cash holdings.

Kuan, Li and Chu (2011) examined the association between CG and cash policy of family-controlled firms. The authors found that the impact of CG, with its separation of control rights and cash flow rights, director-ownership-in-pledge ratio and proportion of independent directors on cash policy, differs between family-controlled and nonfamily-controlled firms. The authors also found that the separation of seat control rights and cash flow rights, as well as chair duality, significantly affects the cash policy within different levels of CHs in firms.

Gill and Shah (2012) sampled Canadian firms from 2009 to 2011 and found that CEO duality and board size positively impact corporate cash holdings. Hence, the board of directors and the CEO are responsible for formulating policies regarding cash management, accounts receivable, inventory purchases and maintenance, accounts payable, and all other policies in the organization. Thus, board size and CEO duality play an important role in the organization and may lead to, high cash balances; high volume of accounts receivable; high amount of accounts payable; and a fast cash conversion cycle.

The optimization of working capital balances helps minimize working capital requirements, which in turn, increase firms' free cash flow (Ganesan, 2007). Inefficient working capital management policy, induced by poor corporate governance, has a negative impact on

shareholders' wealth. Effective CG serves as a check on the management of the firm's resources.

The financing hierarchy view suggests that there is no optimal level of cash, just as there is no optimal level of debt. Cash balance are simply the outcome of the investment and financing decision made by the firm as suggested by the pecking order theory of financing (Dittmar et al., 2003). However, Myers and Majluf (1984) suggest that firms will use internal fund before resorting to external fund because acquiring external fund incur cost such as transaction cost as well as those arising from information asymmetric. Therefore, firms with access cash flow might accumulate cash while firms that invest heavily will deplete the cash level.

Dittmar and Mahrt-Smith (2007) examined how CG impacts a firm's value by comparing the firm's value and their use of CH between poorly governed and well-governed firms. They discovered that corporate governance has a substantial impact on firm value through its impact on cash holdings. Poorly governed firms dispel cash quickly, and it eventually reduces operating performance. However, well-governed firms who dispel larger cash holdings eliminate the negative impact on operating performance.

Pinkowitz, Stulz & Williamson (2006) found that companies in 35 countries with limited protection for minority shareholders tend to have higher ratios of cash-to-total assets than comparable companies in more protective regimes. Pinkowitz et al. (2006)'s findings also support Michael Jensen's "free cash flow" theory – the tendency of corporate managers in mature companies to retain and then waste excess cash on low-return projects. Pinkowitz et al. (2006) also suggested that in companies facing significant agency costs of free cash flow, cash holdings should be discounted since they are expected to be spent partly on projects designed to increase the welfare of those who control the firm rather than to maximize the wealth of all investors. Harford (1999) shows that regardless of a firm's level of CG, firms with large cash reserves spend more on acquisitions. Harford et al. (2008) build on this finding and show that poorly governed firms dissipate cash through acquisitions.

Dittmar et al. (2003) found that CG affects the level of cash holding using evidences from 45 countries. Specifically, manager prefers to hold more cash in countries with poor shareholder protection. In contrast, Harford et al. (2008) suggested that poor governance results in less cash holdings. However, early literatures found that the relationship between cash holdings and firm-level CG is not significant (Harford, 1999 and Opler et al., 1999). Furthermore, Bates, Kahle & Stulz (2009) also concluded that high cash holdings are resulted from preventing high risks of cash shortage, so that governance plays almost no roles in accumulating cash reserves.

Gill and Shah (2012) studied 166 Canadian listed companies from 2008 to 2010. They found that cash holding is positively affected by CEO duality. One possible reason is that the CEO/Chairman does not act for the best interests of shareholders. Research from Drobetz and Gruninger (2007) investigating 156 Swiss non-financial firms from 1995 to 2004 also concluded the similar result. In contrast, study documented that duality leads to insider dominance that is similar to family control (Chen, Cheung, Stouraitis & Wong, 2005). Under



agency theory, ineffective monitoring of board is one of the reasons for poor governance since there is little monitoring on managers and it is hard to fire poor performance directors (Carver, 2006). Prior literatures suggest CEO duality seems to be less effective in CG. Corporate with poor governance hold less cash as directors spend cash quickly (Harford, 1999). The underlying reason is found in Dittmar and Mahrt-Smith (2007)'s study that excess CH decrease the incentive to control cost or improve profit margins, and results in overinvestment in low margin projects.

According to agency theory, it is expected that non-executive director dominate board are likely to reduce agency cost and hence hold less amount of cash (Ozkan and Ozkan, 2004). However, Chen and Chuang (2009) found a positive relation between outside director and cash holdings since the nature of high-tech firms requires them to hold more cash for future investment.

According to Gill and Shah (2012), CG plays an important role in controlling the management of working capital by formulating sound policies and further added that CEO duality and board size help in maintaining an appropriate level of working capital in the organization (Gill and Shah, 2012). Dahya and Travlos (2000) describe that with dual-responsibility, CEOs serve the interests of the management team and one way to protect the team's position is to hold excessive corporate liquidity.

The policy to maintain high cash balances may reflect management's own risk aversion and that may cause an agency problem because the board of directors and the CEO may maintain balances that do not maximize shareholders' wealth (Gill and Shah, 2012). By managing working capital effectively, shareholders can get maximum return on their invested capital. Weak corporate governance might have adverse consequences for cash management (Harford et al., 2008).

CG can give impact on the decision of holding cash by firms. Shareholders may be willing to accept high levels of cash holdings for capital investment if effective CG can protect their interest. In recent research made by Harford et al (2008) found that firms with higher insider ownership have higher CHs, while firms with weaker shareholders rights (higher GIndex) have lower cash holdings. Furthermore, firms with weaker shareholders rights and low insider ownership have lower cash reserve than those with stronger shareholders rights (low GIndex) and high insider ownership.

It also showed that poor governance leads managers choosing to distribute some of the cash to do so in the way that established the least commitment. Furthermore, it is also found that firms with weaker corporate governance structure actually have smaller cash reserve. When distributing cash to shareholders, firms with weaker governance structure choose to repurchase instead of increasing dividends, avoiding future payout commitments. The combination of excess cash and weak shareholder rights lead to increases in capital expenditures and acquisition (Harford et al., 2008).

### **3. Hypotheses of the Study**

The following hypotheses are formulated by the researcher based on the discussed literature:

H<sub>1</sub>: There is a significant impact of corporate governance practices on cash holdings

H<sub>2</sub>: There is a significant relationship between corporate governance practices and cash holdings

#### 4. Data and Methodology

##### 4.1 Method

This research adopted the quantitative deductive research method. CH is used as proxy to calculate the amount of cash and size of the board; board composition; CEO duality; gender diversity; board meetings are explanatory variable as a proxy of CHPs and firm size; sales growth and firm performance are used as explanatory variables which are similar to those used by Gill and Biger (2013); Velnampy (2013) and Kajanathan and Achchuthan (2013).

##### 4.2 Measurement

In line with prior studies, measures relating to;

Table 1. Measurement of variables

<b>Independent Variables</b>	<b>Measurement</b>
Board Size (BS)	Number of directors represent the board
Board Composition (COM)	Number of independent directors to total directors
CEO Duality (CD)	Assigned value “1” if same person occupied the post of the chairperson and the CEO and “0” for otherwise
Gender Diversity (GD)	Number of female directors represent the board
Board Meeting (BM)	Number of meetings held during the financial year.
<b>Dependent Variables</b>	<b>Measurement</b>
Cash Holdings (CH)	Log of average cash
<b>Control Variables</b>	<b>Measurement</b>
Firm Size (FS)	Log of average assets
Sales Growth (SG)	Current year sales - previous year sales/previous year sales
Net Profit (NP)	Net income after tax/revenue

##### 4.3 Model

Regression model used in this study is as follows:

$$CH = \beta_0 + \beta_1 BS + \beta_2 CD + \beta_3 COM + \beta_4 BM + \beta_5 GD + \beta_6 FS + \beta_8 SG + \beta_9 NP + \emptyset IND + \delta_{yr} + \epsilon_i$$



#### 4.4 Sample Selection

The population of interest in this study is (initially) the 289 public companies which are listed on the CSE, as at August 2016. In selecting the population, this study excludes Banking & Finance and investment trusts; information technology; land and property sector companies as their unique financial attributes, intensity of regulation (Deloof, 2003; Chang, Chou, & Huang, 2014 & Abed, Al-Attar & Suwaidan, 2012) and/or intensive use of leverage (Anderson and Reebet, 2003; Claessens, 2006; Andres, 2008; Estrin, Hanousek, Kocenda & Svejnar, 2009; Jiraporn, Singh & Lee, 2009 and Al-Fayoumi, Abuzayed & Alexander, 2010) are likely to confound the outcomes being studied. Also, the risk of missing data was minimized by precluding companies that were not listed throughout the review period. After the eliminations, 193 Sri Lankan public companies remained in the population. The 90 companies have drawn as sample randomly from CSE. Table below classifies the participating companies via the CSE industry classification.

Table 2. Sample Selection Criteria

	<b>Name of the Industry</b>	<b>No of firms in each industry</b>	<b>Population Weight / share of population</b>	<b>Actual Sample</b>
01	Beverage Food Tobacco	22	0.114	10
02	Chemicals and Pharmaceuticals	10	0.052	5
03	Construction and Engineering	4	0.021	2
04	Diversified holding	16	0.082	7
05	Footwear	3	0.016	1
06	Healthcare	6	0.031	3
07	Hotels and Travels	36	0.187	17
08	Manufacturing	37	0.192	17
09	Motors	6	0.031	3
10	Oil Palms	5	0.026	2
11	Plantations	18	0.093	9
12	Power and Energy	8	0.041	4
13	Services	8	0.041	4
14	Stores and supply	4	0.021	2
15	Trading	8	0.041	4
16	Telecommunication	2	0.010	1
		<b>193</b>	<b>1</b>	<b>90</b>

## 5. Analysis and Findings

### 5.1 Descriptive Statistics

Table 3 shows descriptive statistics of the collected variables. The statistics for board size show that in general the mean board size is eight directors, with a minimum of five and a maximum of fifteen for the whole sample of the 90 listed Sri Lankan companies. This confirms that the listed companies in Sri Lanka, on average, have fulfilled the requirements of the Code of Best Practice on Corporate Governance, 2013 commensurate with the recommendations of Lipton and Lorsch (1992). They recommended eight or nine directors, and specified that ten should be the maximum number. This relatively small size is owing to the effect of more people inhibiting the process of making decisions (i.e. causing indecisiveness or incoherent decisions due to the fissiparous decision making process among many parties). Interestingly, it has been found that companies in emerging countries typically have smaller board sizes. The average board size similar in Egypt and Malaysia is eight directors (Elsayed, 2007; Haniffa and Hudaib, 2006), while the average board size in the US is 12.25 (Yermack, 1996). However, the board size is significantly smaller in Australia, averaging 6.6 (Kiel and Nicholson, 2003).

An average of 37% of board members are independent directors, ranging from 11% to 70%. Prior researches have shown that the more number of independent directors are present on a board, the more independent the board is, with correspondingly reduced information asymmetry between shareholders and managers (Black, Jnag & Kim, 2006). Brickley, Coles & Jarrell (1997) found that boards tend to perform better with the monitoring and advisory function of independent directors on behalf of shareholders. The percentage of independent directors in Sri Lankan boards is relatively small (e.g. compared to other countries: the US mean = 54%, Yermack, 1996; Malaysia mean = 50%, Haniffa and Hudaib, 2006). Thus, the average composition of boards having 37% of independent directors comply with Code of Best Practice on Corporate Governance (2013).

Analysis of the leadership structure for Sri Lankan companies (Table 3) reports that 73% of the firms separated the leadership roles and it identifies the importance of separating the position of chairman and CEO and also comply with the code of best practice recommendations issued in 2013 by ICASL and SEC. Less than 30% of firms are still combining the posts of CEO and the chairman. Gender diversity has the lowest mean value of 0.059 with the range of 0.44, this shows the positive trend of Sri Lankan companies taking participation of women in governing body as well as board meeting shows the maximum value of 12 with the average of 4.95 for the selected Sri Lankan companies.

It can be observed that the mean firm size is Rs 479,700 billion, with a minimum of Rs 189,700 billion and a maximum of Rs 964,100 billion. Net profit has a mean of 8.91 percent and the greatest variation, ranging from a minimum of -5.11 percent to a maximum of 31.60 percent. There appears to be variation between the maximum and minimum tests among most of the companies' net profit. Sales growth has a mean value of 9.23 percent and this also indicates the greatest variation of 70.83 percent of range. This result is expected, reflecting the effect of examining a wide range of companies of different sizes. Further, CH shows the

average amount of cash for Sri Lankan listed companies is Rs.15, 330 Bn with standard deviation of Rs. 27,8101Bn. This result is relatively low as compared to studies on US firms, Japanese firms and Taiwan firms which recorded mean above 15 percent. This clearly indicates the better cash management of Sri Lankan listed companies.

Table 3. Descriptive statistics of independent and control variables

Variables	Obs	Mean	Min	Max	Range	SD
<b>Independent variables</b>						
BS	450	8.44	5	15	10	2.06
CD (%)	450	.27	0	10	10	.44
COM (%)	450	.37	.11	.70	.59	.11
GD (%)	450	.059	0	.44	.44	.01
BM	450	4.95	10	12	11	2.08
<b>Control variables</b>						
Sales growth (SG) %	450	9.23	-27.32	43.51	70.83	16.75
Net profit (FP) %	450	8.91	-5.11	31.60	39.71	10.16
Total assets (FS) in “Bn”	450	479700	189700	964100	774400	527670
<b>Dependent variable</b>						
CH in “Bn”	450	15330	30	108000	107970	27810

## 5.2 Correlation Analysis

Table 4 presents the results of correlation coefficient value between independent and dependent variables of the study. Board size shows a significant negative correlation with CH ( $r=-0.126$ ;  $p < 0.1$ ) at the same time gender diversity ( $r=0.120$ ;  $p < 0.1$ ) and board meetings ( $r=0.207$ ;  $p < 0.1$ ) show significant positive correlation with CH. All correlation coefficient values are statistically significant at 10 percent level of significance. It says that increasing the number of total directors in the company board room reduces the amount of cash holdings of the company as well as increasing the number of female directors and meetings of the company increasing the amount of cash holding of the Sri Lankan listed companies.

Table 4. Pairwise Correlation Analysis

Variables	BS	CD	COM	GD	BM	FS	SG	FP	CH
BS	1								
CD	-0.023	1							
COM	-0.032	0.008	1						
GD	-0.089	0.019	0.061	1					
BM	-0.003	-0.053	0.057	0.019	1				
FS	-0.050	-0.075	-0.030	0.205	0.136	1			
SG	0.049	-0.062	0.066	-0.071	0.017	0.034	1		
FP	-0.015	-0.093	-0.022	-0.121	-0.067	0.001	0.007	1	
CH	<b>-0.126*</b>	-0.032	0.012	<b>0.120*</b>	<b>0.207*</b>	0.066	0.020	0.010	1

Note. \*  $p < 0.10$ , \*\*  $p < 0.05$ , and \*\*\*  $p < 0.01$ .

### 5.3 Regression Analysis

Table 5 shows the adjusted  $r^2$  value of 9.12 (f-test=9.29,  $p < 0.1$ ) for the model CH 1. It means that only 9.12 percentage of influence is created by independent variables (CGP) on CH without incorporating firm characteristics, firm effect and year effect. Further in this model (CH 1) CD, GD and BM are significant at 10 and 1 percent significant level respectively. Model CH2 indicates a significant dropped in adjusted  $r^2$  as 8.43 (f-test=26.48,  $p < 0.01$ ) percent after incorporating control variables such as; firm size; sales growth and firm performance. Here only the control variable firm size is significant at 1 percent significant level (co-efficient is 0.951;  $p = 0.022$ ;  $p < 0.01$ ). It means that the whole impact of 8.43 percent is dominated by only one control variable is firm size than other explanatory (CGP) variable and control variables such as firm performance and sales growth. Model CH3 illustrates the adjusted  $r^2$  value of 8.38 (f-test=17.54,  $p < 0.01$ ) percent after including year dummy with the independent and control variables. Further this model shows again that CH as one of the proxy of working capital management efficiency is only affected by firm size (co-efficient is 0.948;  $p = 0.022$ ;  $p < 0.01$ ). Final model CH 4 depicts the adjusted  $r^2$  value of 8.42 (f-test=16.63,  $p < 0.01$ ) percent after including all independent variable, control variable, year dummy and industry dummy. Further this model explains that BS; CD and GD are the variable significantly impact ( $p < 0.1$ ) on CH with the control variable of FS ( $P < 0.01$ ). Remaining 91.58 percent of impact is made by other variables which are not depicted in the model.

Table 5. Corporate Governance Practices (CGPs) and Cash Holdings (CH)

Variables	CH (1) (t-statistics)	CH (2) (t-statistics)	CH (3) (t-statistics)	CH (4) (t-statistics)
BS	-0.067 (0.050)	-0.0337 (0.021)	-0.0342 (0.021)	-0.0375* (0.020)
CD	-0.417* (0.236)	0.087 (0.099)	0.092 (0.099)	0.169* (0.101)
COM	-0.384 (0.926)	-0.183 (0.386)	-0.186 (0.388)	-0.212 (0.384)
GD	3.280*** (1.084)	-0.679 (0.465)	-0.679 (0.467)	-0.767* (0.463)
BM	0.252*** (0.049)	0.022 (0.022)	0.023 (0.021)	0.018 (0.021)
FP	-	0.000 (0.004)	0.000 (0.004)	0.002 (0.004)
FS	-	0.951*** (0.022)	0.948*** (0.022)	0.943*** (0.022)
SG	-	0.002 (0.002)	0.002 (0.002)	0.001 (0.002)
Year Effect (YA)	No	No	Yes	Yes
Industry Effect (IND)	No	No	No	Yes
<b>Model fits</b>				
Adj.R <sup>2</sup> (%)	9.12	8.43	8.38	8.42
F-test	9.29***	26.48***	17.54***	16.63***
Observations	450	450	450	450

\*\*\*=significantat 0.01level, \*\*=significantat 0.05level, \*=significantat 0.10level

## 6. Summary and Concluding Remarks

This purpose of the study is to empirically investigate the impact of CGPs on CH among listed companies in Sri Lanka. From this study, it is found that there is a significant negative impact of board size and gender diversity on CH as well as significant positive impact of CEO duality on CH. The results recommend that the existence of more number of directors and female directors on the board reduce the amount of CH as well as dual role of CEO increase the amount of CH of the listed Sri Lankan companies. On the other hand, this study found that none of the board composition and board meetings have significant impact on CH. It indicates that there is no evidence to prove CHs are influenced by board independence and board meetings. The findings of this study lend some support to the findings of Nadiri (1969), Dittmar et al. (2003), Saddour (2006), Drobetz and Gruninger (2007), Kuan et al. (2011), Lau

and Block (2012) and Gill and Shah (2012), Chen and Chuang (2009). Further, there is a significant impact of FS as control variable on CH, it reveals that FS is the most important firm specific factor in determining the amount of CH of the listed companies in Sri Lanka and also there is a little increase in the impact of CGPs with industry effect and year effect.

The findings may be of interest to policy makers and regulators in making amendments to the CG in relation to internal and external governance practices. In particular, the study notes that the current Code of Best Practice on Corporate governance (2013) guidelines for gender diversity, which is shown to have a significant effect on CH in the study, are vague and doesn't provide specific recommendations to industry participants. The evidence points to the practical implication that the impact of CGPs on CH may not necessarily be the same across different countries because each country has their own unique governance structure.

### 6.1 Conclusion

The present study found that CGPs improve the amount of CHs of listed companies in Sri Lanka. Large proportion of independent directors and more number of board meetings may not be in favor of Sri Lankan listed companies because it does not change the level of CH. In conclusion, our results suggest that effective CGPs have significant effect on CH in listed Sri Lankan companies. Further researches need to be done in order to examine the effects of different (internal and external) CGPs on CHs associate with companies in different sizes.

### 6.2 Limitations of the Study

There are some limitations that need to be considered in interpreting the findings of the study.

- The study examines the CGPs of companies listed on the CSE only. Non-listed firms may have CGPs with different characteristics to maintain optimum amount cash.
- The study considers CGPs that are recommended by the Code of Best Practice on Corporate Governance (2013) guidelines and previous studies. There may be other CGPs such as board of directors' attitudes, ownership concentration, CEO tenure and cultural differences that influence the level of CH.
- One should not ignore the practical implementation challenges of the findings. For instance, the number of directors or independent directors or female directors on the board or number of meetings may not be effective in every company.

### 6.3 Future Research

Future studies may examine the impact of CGPs on CH by using samples of listed firms from other developed and developing countries to see if same relationships exist.

## References

- Abed, S., Al-Attar, A., & Suwaidan, M. (2012). Corporate governance and earnings management: Jordanian evidence. *International Business Research*, 5(1), 216.
- Afza, T., & Adnan, S. M. (2007, August). Determinants of corporate cash holdings: A case study of Pakistan. In *Proceedings of Singapore Economic Review Conference (SERC)*.



- Al-Fayoumi, N., Abuzayed, B., & Alexander, D. (2010). Ownership structure and earnings management in emerging markets: The case of Jordan. *International Research Journal of Finance and Economics*, 38(1), 28-47.
- Anderson, R. C., Mansi, S. A., & Reeb, D. M. (2004). Board characteristics, accounting report integrity, and the cost of debt. *Journal of accounting and economics*, 37(3), 315-342.
- Andres, C. (2008). Large shareholders and firm performance-An empirical examination of founding-family ownership. *Journal of Corporate Finance*, 14(4), 431-445.
- Bates, T. W., Kahle, K. M., & Stulz, R. M. (2009). Why do US firms hold so much more cash than they used to?. *The Journal of Finance*, 64(5), 1985-2021.
- Besley, S., & Brigham, E.F. (2005). *Essential of Managerial Finance* (13th ed.). Thomson South-Western, Mason, OH.
- Carver, J. (2011). *Boards that make a difference: A new design for leadership in nonprofit and public organizations*, Vol. 6. John Wiley & Sons.
- Chang, Y. K., Chou, R. K., & Huang, T. H. (2014). Corporate governance and the dynamics of capital structure: New evidence. *Journal of Banking & Finance*, 48, 374-385.
- Chen, Y. R., & Chuang, W. T. (2009). Alignment or entrenchment? Corporate governance and cash holdings in growing firms. *Journal of Business Research*, 62(11), 1200-1206.
- Chen, Z., Cheung, Y. L., Stouraitis, A., & Wong, A. W. (2005). Ownership concentration, firm performance, and dividend policy in Hong Kong. *Pacific-Basin Finance Journal*, 13(4), 431-449.
- Claessens, S. (2006). Corporate governance and development. *The World Bank Research Observer*, 21(1), 91-122.
- Cossin, D., & Hricko, T. (2004). The benefits of holding cash: a real options approach. *Managerial Finance*, 30(5), 29-43.
- Couderc, N. (2006). La détention d'actifs liquides par les entreprises. *Revue économique*, 57(3), 485-495.
- Dahya, J., & Travlos, N. (2000). Does the one man show pay? Theory and evidence on the dual CEO revisited. *European Financial Management*, 6(1), 85-98.
- Deloof, M. (2003). Does working capital management affect profitability of Belgian firms?. *Journal of business finance & accounting*, 30(3-4), 573-588.
- Dittmar, A., & Mahrt-Smith, J. (2007). Corporate governance and the value of cash holdings. *Journal of Financial Economics*, 83(3), 599-634.
- Dittmar, A., Mahrt-Smith, J., & Servaes, H. (2003). International corporate governance and corporate cash holdings. *Journal of Financial and Quantitative Analysis*, 38(1), 111-133.

- Dittmar, A., & Mahrt-Smith, J. (2007). Corporate governance and the value of cash holdings. *Journal of financial economics*, 83(3), 599-634.
- Drobetz, W., & Gruninger, M. C. (2007). Corporate cash holdings: Evidence from Switzerland. *Financial Markets and Portfolio Management*, 21(3), 293-324.
- Ferreira, M. A., & Vilela, A. S. (2004). Why do firms hold cash? Evidence from EMU countries. *European Financial Management*, 10(2), 295-319.
- Ganesan, V. (2007). An analysis of working capital management efficiency in telecommunication equipment industry. *River Academic Journal*, 3(2), 1-10.
- Gill, A. S., & Biger, N. (2013). The impact of corporate governance on working capital management efficiency of American manufacturing firms. *Managerial Finance*, 39(2), 116-132.
- Gill, A., & Mathur, N. (2011). The impact of board size, CEO duality, and corporate liquidity on the profitability of Canadian service firms. *Journal of Applied Finance and Banking*, 1(3), 83-95.
- Gill, A., & Shah, C. (2012). Determinants of corporate cash holdings: evidence from Canada. *International Journal of Economics and Finance*, 4(1), 70-9.
- Hanousek, J., Kocenda, E., Estrin, S., & Svejnar, J. (2009). Effects of privatization and ownership in transition economies.
- Harford, J. (1999). Corporate cash reserves and acquisitions. *Journal of Finance*, 54(6), 1969-1997.
- Harford, J., Mansi, S.A., & Maxwell, W.F. (2008). Corporate governance and firm cash holdings in the US. *Journal of Financial Economics*, 87(3), 535-55.
- Isshaq, Z., Bokpin, G.A., & Onumah, J.M. (2009). Corporate governance, ownership structure, cash holdings, and firm value on the Ghana Stock Exchange. *The Journal of Risk Finance*, 10(5), 488-99.
- Jensen, M. C. (1986). Agency costs of free cash flow, corporate finance, and takeovers. *The American Economic Review*, 76(2), 323-323
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305-360.
- Jiraporn, P., Singh, M., & Lee, C. I. (2009). Ineffective corporate governance: Director business and board committee memberships. *Journal of Banking & Finance*, 33(5), 819-828.
- Kajananthan, R., & Achchuthan, S. (2013). Marketing Challenges in Dairy and Paddy sector Development. Individual Farmers Perspective: Evidence from Sri Lanka.
- Keynes, J. M. (1934). *The applied theory of money*, Vol. 2. Macmillan and Co..

- Kuan, T. H., Li, C. S., & Chu, S. H. (2011). Cash holdings and corporate governance in family-controlled firms. *Journal of Business Research*, 64(7), 757-764.
- Kusnadi, Y. (2011). Do corporate governance mechanisms matter for cash holdings and firm value?. *Pacific-Basin Finance Journal*, 19(5), 554-570.
- Michalski, G. (2008). Determinants of Accounts Receivable Level: Portfolio Approach in Firm's Trade Credit Policy. *Acta Oeconomica Pragensia*, 16(5), 47-56.
- Myers, S. C. (1984). The capital structure puzzle. *The journal of finance*, 39(3), 574-592.
- Myers, S. C., & Rajan, R. G. (1998). The paradox of liquidity. *The Quarterly Journal of Economics*, 113(3), 733-771.
- Myers, S. C., & Majluf, N. S. (1984). Corporate financing and investment decisions when firms have information that investors do not have. *Journal of financial economics*, 13(2), 187-221.
- Opler, T., Pinkowitz, L., Stulz, R., & Williamson, R. (1999). The determinants and implications of corporate cash holdings. *Journal of financial economics*, 52(1), 3-46.
- Ozkan, A., & Ozkan, N. (2004). Corporate cash holdings: An empirical investigation of UK companies. *Journal of Banking & Finance*, 28(9), 2103-2134.
- Pinkowitz, L., Stulz, R., & Williamson, R. (2006). Does the contribution of corporate cash holdings and dividends to firm value depend on governance? A cross-country analysis. *The Journal of Finance*, 61(6), 2725-2751.
- Velampy, (2013) Corporate Governance and Firm Performance: A Study of Sri Lankan Manufacturing Companies. *Journal of Economics and Sustainable Development* 4(3), 228-236.

### Copyright Disclaimer

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/4.0/>)