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# CORPORATE GOVERNANCE AND CASH CONVERSION CYCLE: EVIDENCE FROM LISTED COMPANIES IN SRI LANKA



Alagathurai  
Ajanthan<sup>1+</sup>  
KGA Udhaya Kumara<sup>2</sup>

<sup>1</sup>Lecturer, Department of Accounting, University of Jaffna Jaffna, Sri Lanka  
Email: [ajanthan198703@gmail.com](mailto:ajanthan198703@gmail.com) Tel: 077-4249084

<sup>2</sup>Lecturer, Faculty of Management Studies, Rajarata University of Sri Lanka Mihintale, Sri Lanka  
Email: [udayakga@gmail.com](mailto:udayakga@gmail.com) Tel: 071-2798758



(+ Corresponding author)

## ABSTRACT

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The purpose of this study is to examine the impact of corporate governance on cash conversion cycle of Sri Lankan listed companies. This study adopted a co-relational research design. A sample of 90 Sri Lankan companies listed on the Colombo Stock Exchange for a period of five years (from 2011/12–2015/16) was used. The findings show that large number of directors and independent directors on the board and more number of meetings in a year shorten the cash conversion cycle (CCC) of Sri Lankan listed companies. The study adds to the literature on the factors that shorten the CCC 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.

**Contribution/ Originality:** This study contributes in the existing literature of how the corporate governance mechanisms influence the efficiency of working capital management in developing economies like Sri Lanka. And also beneficial to the financial managers, investors, financial management consultant and other stakeholders to make different types of decisions.

## 1. INTRODUCTION

This study is primarily interested by the global attention to corporate governance (hereafter CG) and the emphasis on working capital management (hereafter WCM) by scholars that tracked the financial crises all over the world. CG is an essential to the economy of Sri Lanka for successful economic restructuring and long-term growth of the country. So the country requires competent capital market capable of mobilizing domestic savings and channeling them into the most fruitful uses. To establish such a market, good CG is considered essential (WTO,

2004). Developing countries rely on foreign investment and trade for economic growth. The main criteria used by international investors in evaluating the investment potential are legal and accounting infrastructure, fraud risk and corporate governance. Therefore, to increase investor confidence, developing countries need to undertake transformations of corporate governance, financial reporting and related laws (Abhayawansa and Johnson, 2007).

In this connection OECD (2006) indicates that the corporations' working capital was affected by the inclusive financial crises meanwhile these companies confronted growing in their debtors collection period and inventories transformation period due to the falling in the demand for their products, which replicated negatively their working capital and hence their liquidity (Abuzayed, 2012). Particularly, Garcia-Teruel and Martinez-Solano (2007) identify that cash conversion cycle (hereafter CCC), which considered as a key factor in WCM, refers to "the average number of days between the date when the firm must start paying its suppliers and the date when it begins to collect payments from its customers".

WCM has significant role in corporate finance since effective WCM is an important for business going concern and its profitability (Siddiquee and Khan, 2008). In addition, effective WCM will lead a company to respond quickly and favorably to unexpected change in the variables of the market and to obtain competitive advantages over its rivals (Appuhami, 2008). However, inefficient WCM will lead a company to liquidity crisis through reducing the firm's profitability and credibility. Particularly, the WCM requires a tradeoff between risk and return; higher risk and higher return are related with aggressive working capital management while the lower risk and lower return are allied with conservative working capital management (Afza and Nazir, 2007). The people in the corporate board are accountable for formulating different types of policies related to short term as well as long term in the company where weak policies related to working capital components, such as trade receivable, trade payable and inventory management have an adverse effect on the CCC (Gill and Biger, 2013). The conflict of interest between managers and shareholders could have an effect on working capital level (Jensen and Meckling, 1976). As well, weak CG will lead to inefficient working capital management which has an adverse effect on shareholder wealth (Isshaq *et al.*, 2009).

A speedy CCC is necessary for the existence and wealth of the company. The elements of the CCC include trade receivable days, trade payable days and inventory days (Gill and Biger, 2013). Shortening the CCC days plays significant part in firming short solvency by enhancing cash flows of operation; or the ability of the company to satisfy short-term as well as long-term financial obligations. The main decisions by the board that distress solvency of the business include, but are not limited to trade receivable, trade payable and inventory (John and Senbet, 1998).

In Sri Lanka rule based corporate governance system is jointly implemented and directed by Security Exchange Commission of Sri Lanka (hereafter SEC) and Institute of Chartered Accountant of Sri Lanka (CA Sri Lanka) which may have an impact on company board of directors. Because this is mandatory requirements to all listed companies listed on Colombo Stock Exchange (hereafter CSE). In public companies all important decisions are taken by the board, so the strong corporate governance can improve the efficiency of board decisions and serves as a check on the management of the firm's resources. Hence, optimization of working capital balances, in turn, aids curtail working capital requirements (Gill and Biger, 2013). The optimum working capital balances escalate companies' free cash flow (Ganesan, 2007) and consequently, positively affect shareholders' wealth.

Through optimum working capital management, shareholders can get high yield on their invested capital. Poor CG might have an adverse effects for cash management (Harford *et al.*, 2012) trade receivable, inventory, trade payable, and cash conversion. In line with this examination, this study is intended to identify the impact of CG on CCC. So far knowledge concern, no detailed research work has been done related to CG and CCC for Sri Lankan listed companies. Hence the outcomes of this study may assist to financial managers, business analyst, financial controller, operations managers, investors, financial management consultants and other stakeholders and then contribute to an improvement of the CCC of the listed companies.

### 1.1. Statement of the Problem

Well-structured CG is an important especially with the recent global financial crisis in order to ensure sound corporate financial management and to deal with uncertainties that exemplify future business existences. Proficient financial management is an important feature of building competitive advantage and it requires a company to make good decisions about long-term and short-term capital and to maintain solvency and liquidity (CPA Australia, 2010). Optimization of CCC is considered as the most important function of managing a company in relation to the liquidity concept. Therefore, good and better decisions of working capital management are strategic keys in CG.

Sen *et al.* (2011) argue that efficient working capital management which is scaled by the proxy as CCC is a substantial component of improving profitability and competitiveness of firms'. Consequently, improving performance and competitiveness of companies by ensuring efficient management of WC becomes as an important feature of CG. In line with this, Gill and Biger (2013) did a research in United States and conclude that CG advances working capital management efficiency which is calculated by the proxy as CCC. In contrast, a research conducted by Kajanathan and Achchuthan (2013) in Sri Lanka, revealed that CG has no effect on WCM which is measured by the proxy as CCC. Owing to these contradicting results, this study was set out the research question as "what extent CG practices impact on CCC of listed companies in Sri Lanka.

#### Research Objective:

Research objective can be stated as follows:

#### Primary Objective:

- To identify the impact of corporate governance practices on cash conversion cycle of listed companies in Sri Lanka.

#### Secondary Objective:

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

## 2. REVIEW OF LITERATURE AND HYPOTHESES DEVELOPMENT

Impact of board structure on firm behavior has been a discussed issue in the literature (Anderson and Reeb, 2004). The concept of board structure depend on agency theory that emphasis on the function of the board (Jensen and Meckling, 1976; Fama and Jensen, 1983; Hillman and Dalziel, 2003; Arosa *et al.*, 2010). The principal-agent problem takes place in companies because managers, who are supposed to make decisions on behalf of the shareholders, may not always work in the favor of shareholders to maximize their wealth.

CG plays vital role in guiding the management of working capital by formulating rigorous policies (Gill and Biger, 2013). Gill and Biger (2013) also note that good CG play a role in improving working capital management efficiency. Fama and Jensen (1983) also state that focus of decision management and decision control in one individual obstructs boards' efficiency in monitoring top management.

The people in the board are answerable for formulating various policies in a company. Thus, CG play an imperative role in the company and may lead to high volume of accounts receivable; high amount of accounts payable; optimum level of inventory and a fast CCC. Poor policies of trade receivable, trade payable, and stock management have an adverse effect on the CCC. The policy to maintain high cash balances may reflect management's own risk aversion and that may cause an agency problem since the board and the CEO may maintain balances that do not maximize shareholders' value (Gill and Shah, 2012).

The CCC plays a key role in the existence and victory of the company. Although, independent directors are not directly responsible for maximizing shareholders' value, they are knowledgeable people who support managers to

boost their decision-making processes by contributing their experiences. According to stewardship theory of Donaldson and Davis (1991) the key role of the board is to guide and help management rather than to discipline and monitor as agency theory suggests (Hillman and Dalziel, 2003; Pieper *et al.*, 2008).

The role of CEO duality, board size, composition of board, gender diversity and board meetings in working capital management cannot be ignored. Dual role of CEO and number of directors in the board support in maintaining an appropriate level of working capital in the organization (Gill and Shah, 2012). According to Sagner (2007) new mixture of board members help to increase the efficient use of WC and advance the utilization of current assets and liabilities. Such boards and top management teams able to make rigorous working capital related decisions. Usually number of directors in the board increases with the recruitment of experienced board members from different industries and countries. They can play a stewardship role to minimize an agency problem in the particular company and therefore increase the working capital efficiency. The new management may make good working capital management decisions; improve the CCC, cash conversion efficiency, and liquidity of the company.

According to Yermack (1996) and Lipton and Lorsch (1992) a board with small size is more suited to make better decisions than a board with large number of directors. According to Kyereboah (2007) board with few directors should be beneficial for an effective communication and better decision-making. Dahya and Travlos (2000) express 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. Further, the CEO together with the directors formulate different policies related to WC, capital structure etc. Inclusion of independent directors in the board is useful strategy for monitoring the senior managers to cope with the agency problem and to reduce agency costs (Fama and Jensen, 1983; Arosa *et al.*, 2010) in publicly traded firms. This is because independent directors have an attitude to remain autonomous while overseeing operating difficulties, safeguard the firm's assets and hold the managers answerable to the firm's different stakeholders to guarantee the existence and victory of the company (Gabrielsson and Huse, 2005).

According to Afza and Nazir (2007) keeping proper level of liquidity within the organization is essential for smooth operations of a company. The level 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).

Foo and Zain (2010) done a research for the sample of 481 companies listed on the Malaysian Stock Exchange and concluded that more independent and diligent boards are associated with high level of liquidity. This finding clearly indicates that presence of more number of independent directors on the board makes the CCC period shorter.

Gill and Biger (2013) carried-out a research for 180 American listed manufacturing firms listed on New York Stock Exchange (NYSE) for the period of three years from 2009 to 2011 by applying general least square model to identify the effect on working capital management efficiency of corporate governance, which considered board size, CEO tenure, CEO duality and audit committee was the independent variable, and working capital management efficiency, which measured through cash conversion cycle, cash holdings, current ratio and cash conversion efficiency was the dependent variable. Whereas, the sales growth, internationalization of the company, company size and company performance were used as control variables. The results revealed that size of board has a negative relation, CEO duality, CEO tenure and audit committee have a positive association, however all associations were immaterial related to CCC and also found a positive association between size of the firm and accounts payables; size of the firm and cash management; firm performance and cash management; firm performance and current ratio; firm performance and cash conversion efficiency; and an adverse association between size of the firm and current ratio.

Gill *et al.* (2015) tested the association between CG and CCC for a sample of 189 listed American manufacturing firms in New York Stock Exchange (NYSE) for three (03) years period from 2009 to 2013. Independent variable was measured through, board size, independent directors' percentage, audit committee, dual role of CEO and CEO

tenure, and firm size, growth of sales and profit margin ratio were used as control variables. The results showed that CCC is affected adversely by the independent directors and positively by CEO tenure. Whereas, size of board, dual role of CEO, audit committee, firm size, sales growth and profit margin were immaterially related to CCC.

Aghajari *et al.* (2015) examined the influence of CG on WCM efficiency by considered 75 listed companies as their sample for the period of 2009 to 2014 and independent variable was measured through dual role of CEO, institutional shareholders ownership and CEO tenure. Whereas, WCM was measured through CCC, current ratio and cash conversion efficiency and also firm size, sales growth and profit margin ratios are. The findings of the regression analysis showed that CCC is affected positively by CEO duality and negatively by institutional shareholders ownership and by CEO tenure. However, all three control variables such as, sales growth, firm size and profit margin ratio were insignificant related to CCC.

Kamau and Basweti (2013) carried out a research with the intention of examining the association between CG and WCM efficiency of firms in Nairobi for the period of 2006-2012. The dependent variable was measured by using the performance index and the result revealed that there was no significant relationship between independent and dependent variable.

According to Karani (2013) implementation of corporate governance practices plays a key role in enhancing the optimum level of working capital usages in a firm and they found that there is a positive relationship between accounts payable and audit committee. Their finding says that proper implementation of corporate governance practices in a firm, definitely it will minimize the level of trade payable of that firm. Valipour *et al.* (2012) conducted a study for a sample of 83 companies listed on the Tehran Stock Exchange for 10 year period from 2001 to 2010 and found an adverse connection between sales growth and CCC.

In Sri Lanka, Kajanathan and Achchuthan (2013) done a research to test the impact of CG, measured through percentage of independent director, CEO duality, board committee and board meeting on WCM efficiency, measured through CCC and current ratio, for a sample of 25 listed manufacturing firms in CSE during the period from 2007-2011. The results of the regression analysis revealed that all corporate governance mechanisms used in the study were statistically not significant related to CCC.

### 3. THEORETICAL FOUNDATION AND SUMMARY OF LITERATURE REVIEW

#### 3.1. Resource Dependency Theory

The fundamental idea of resource dependence theory is an essential for environmental connections between the company and external resources. In this viewpoint, directors of the company assist to join the company with outside factors by taking and hiring the resources required to survive for a longer period (Salancik and Pfeffer, 1978). As per the resource dependency rule, the company directors bring various resources such as information, skills, key constituents (suppliers, buyers, public policy decision makers, social groups) and lawfulness that will be functioned as supporting evidence to mitigate uncertain situations (Gales and Kesner, 1994). Resource dependence theory evidences the recruitment of more directors to different boards due to their opportunities to collect information and linkages in various ways.

This theory is used in this situation to embrace the intellectual capacity of each and every managers of companies as to make sure effective management of the short-term asset of the company (Alvarez and Busenitz, 2001). This is so means that individual directors have individual-specific resources that assists and make sure the identifications of new opportunities, better way of resource collections, special attention of making payments to payables and recovering of receivables as and when due to ensure effective management of working capital and ultimately the firm's profitability.

### 3.2. Agency Theory

According to Jensen and Meckling (1976) the main reason for conflict of interest between principal and agent is that managerial people in a company work for their own earnings than to maximize the wealth of stakeholders especially shareholders. So increasing the number of outside directors in the board assist to formulate good policies in corporate level that support monitoring these senior level people to cope with the agency conflict and to cut agency cost that is monitoring trade receivables, trade payables and inventory.

The relevance of agency theory to WCM could be seen from the perspective of financial manager, who in most cases is an agent of the owners (principals) of a company and who make all of the key decisions about the current assets and liabilities of a company. He takes charge of decisions about debtors, creditors, inventories /stock and liabilities of a company.

### 3.3. Stewardship Theory

As per the stewardship theory, the interest of personnel should bring into line with the objectives of the companies to pursue the interests of the shareholders. Independent directors in the context of this theory play a role of stewards for the company to provide advice, aid in aligning the self-interest of managers with the companies and support the board in taking key corporate governance decisions to improve the prosperity and survivability of the firm.

When the chief executive officer serves dual role in a company, the destiny and all authority to decide strategy is the responsibility of a one man's hand. So the main emphasis of this theory is on arrangements that help and empower rather than monitor and control (Davis *et al.*, 1997). Then the theory takes a more simplex view of the different role of chairperson and chief executive officer, and evidences positioning of one person for two positions as chairman and CEO and more concentration of professional executive directors rather than non-executive directors (Clarke, 2004).

As far knowledge many scholars have empirically examined the association between different corporate governance variables with profitability or firm value or capital structure but few scholars just have tested the connection between corporate governance practices with working capital. Even in Sri Lanka, only few researchers (Kajananathan and Achchuthan, 2013) tested the association between CG and working capital efficiency for manufacturing companies. Though the results are mixed, both nationally and internationally. So the researcher hopefully believe that there is a remarkable gap exists in the literature, because only few studies are available in relation to corporate governance and working capital area especially for listed companies in developing countries like Sri Lanka.

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

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

## 4. DATA AND METHODOLOGY

### 4.1. Method

This research adopted the quantitative deductive research method. CCC is used as proxy to calculate the working capital and size of the board; board composition; CEO Duality; gender diversity; board meeting; firm size and sales growth used as explanatory variables which are similar to those used by Gill and Biger (2013).

### 4.2. Measurement

In line with prior studies, measures relating to;

- Board size, CEO duality, CCC, sales growth, firm performance, and firm size were adopted from Gill and Biger (2013).

- Board composition, gender diversity and board meeting were adopted from [Kajananathan and Achchuthan \(2013\)](#) and [Velnampy \(2013\)](#).

Table-1. Measurement of Variables

Independent Variables	Measurement
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
Dependent Variable	Measurement
Cash Conversion Cycle(CCC)	No. of days AR + No. of days INV- No. of days AP
Control Variable	Measurement
Firm Size (FS)	Natural logarithm of average assets
Sales Growth (SG)	Current year sales - previous year sales/previous year sales
Net Profit (NP)	Net income after tax/revenue

Source: Adapted from Previous Literature

### 4.3. Model

Regression model used in this study is as follows:

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

### 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](#); [Abed et al., 2012](#); [Chang et al., 2014](#)) and/or intensive use of leverage ([Anderson and Reeb, 2004](#); [Claessens, 2006](#); [Andres, 2008](#); [Estrin et al., 2009](#); [Jiraporn et al., 2009](#); [Al-Fayoumi et al., 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 sector classification.

Table-2. Sample Selection Criteria

	Name of the Sector	No of firms in each Sector	Population Weight / share of Population	Actual Sample
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>

Source: Author's Design

## 5. ANALYSIS AND FINDINGS

### 5.1. Descriptive Statistics

Table 3 shows descriptive statistics of the collected variables. In Table 2 below 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 ([Haniffa and Hudaib, 2006](#); [Elsayed, 2007](#)) 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 et al., 2006](#)). [Brickley et al. \(1997\)](#) 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 were issued in 2013 ([ICASL, 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 (BM) 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, CCC shows the average days of 61.77 with the range of 255.78 (max – min) days and it recorded minimum days of 55.78 days in negative sign.

Table-3. Descriptive Statistics

Variable	Obs	Mean	Min	Max	Range	SD
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	1	12	11	2.08
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
CCC (Days)	450	61.77	-55.78	199.99	255.78	67.15

Source: Results from the panel data analysis



### 5.2. Correlation Analysis

As shown in Table 3, the correlation coefficient value between board composition and CCC is only significant as -0.126 and this is significant at 10 percent significant level. It says that increasing number of independent directors in the company boardroom shorten the conversion cycle and finally this support to maintain the optimum working capital for the day to day operations of the companies.

Table-4. Pairwise Correlation Analysis

Variable	BS	CD	COM	GD	BM	FS	SG	FP	CCC
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	
CCC	-0.067	0.071	<b>-0.126*</b>	0.039	-0.071	0.013	-0.003	-0.060	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 2.7 (f-test=2.03,  $p < 0.1$ ) for the model CCC 1. It means that only 2.7 percent of influence is created by governance variables on CCC without incorporating firm characteristics and firm effect and year effect. Further in this model (CCC 1) board size; board composition and board meeting are significant at 10 percent significant level. Model CCC 2 indicates a margin of increased in adjusted  $r^2$  as 7.2 (f-test=3.46,  $p < 0.01$ ) percent after incorporating firm specific variables such as; firm size; sales growth and firm performance. Here the variable, board size is significant at 10 percent significant level, board composition is significant at 5 percent significant level, board meeting is significant at 1 percent significant level and also only variable firm size is significant at 1 percent significant level. Model CCC 3 illustrates the adjusted  $r^2$  value of 7.7 (f-test=2.45,  $p < 0.01$ ) percent after including year dummy with the independent and control variables.

Table-5. Panel Regression Analysis

Variables	CCC (1) (t-statistics)	CCC (2) (t-statistics)	CCC (3) (t-statistics)	CCC (4) (t-statistics)
BS	-0.0179* (0.011)	-0.018* (0.011)	-0.019* (0.011)	-0.018* (0.019)
CD	-0.023 (0.051)	0.008 (0.051)	0.012 (0.052)	0.000 (0.053)
COM	-0.341* (0.196)	-0.397** (0.197)	-0.407** (0.198)	-0.399** (0.198)
GD	0.377 (0.243)	0.184 (0.250)	0.187 (0.251)	0.211 (0.253)
BM	-0.020* (0.011)	-0.032*** (0.017)	-0.031*** (0.012)	-0.031*** (0.012)
FP	-	-0.001 (0.002)	-0.001 (0.002)	-0.001 (0.002)
FS	-	0.040*** (0.011)	0.039*** (0.011)	0.040*** (0.011)
SG	-	0.000 (0.001)	0.001 (0.001)	0.000 (0.001)
Year effect (YA)	No	No	Yes	Yes
Industry effect (IND)	No	No	No	Yes
<b>Model fits</b>				
Adj.R <sup>2</sup> (%)	2.7	7.2	7.7	8.0
F-test	2.05*	3.46***	2.45***	2.33***
Observations	450	450	450	450

\*\*\*=significant at 0.01 level, \*\*=significant at 0.05 level, \*=significant at 0.10 level

In compare with previous model (CCC 2) changes of .05% (7.7%-7.2%) made due to time variant (Year dummy). In the model CCC 3 same variables which have significant impact on dependent variable in the model CCC1 and CCC 2 have same impact on dependent variable at same significance level. Final model (CCC 4) depicts the adjusted  $r^2$  value of 8.0 (f-test=2.33,  $p < 0.01$ ) percent after including all independent and control variable and year dummy and industry dummy. Further this model explains only 0.03 percent of changes in adjusted  $r^2$  after adding industry effect in the OLS regression model. For the purpose of interpretation model CCC 4 can be interpreted that there is only 8.0 percent of impact is made by these all variables (independent; dependent and year dummy and industry dummy) on CCC as one of the proxy of working capital management efficiency. Remaining 92 percent of impact is made by other variables which are not depicted in the model.

## 6. DISCUSSION

This study explored the effect of CG mechanisms on the CCC of Sri Lankan companies. The results recommend that the existence of more directors and outside directors on the board and more board meetings curtail the CCC which favors Sri Lankan companies because a shorter CCC help the firms to maintain ideal level of WC and consequently, support the firms to become as healthy in term of finance. Thus, this study lends support to the findings of Nadiri (1969); Daily and Dalton (1994); Dittmar *et al.* (2003); Saddour (2006); Drobetz and Gruninger (2007); Kuan *et al.* (2011); Lau and Block (2012); Gill and Shah (2012) and Gill and Biger (2013). There is vast difference in the impact of corporate governance with control variables, it reveals that firm size is the most important firm specific factor in determining working capital policy of the listed firms in Sri Lanka and there is little escalation in the impact of CG with industry effect and year effect. The findings of this research also lend some support to the stewardship theory of Donaldson and Davis (1991) insofar as independent directors play a role of stewards for the corporations to provide advice, help in supporting the interest of managers with the corporations, and support the board in taking important governance decisions to improve the prosperity and survivability of the firm and further support to resource dependency theory of Salancik and Pfeffer (1978) as the directors serve to link the company with outside factors by co-opting the resources required to survive.

## 7. CONCLUSION

The more number of directors, independent directors and meetings of companies reduce the CCC of the listed Sri Lankan companies. The curtail CCC helps the firm to value creation and then maximizing wealth of shareholder. So the presence of more directors and independent directors on the board and more number of meetings are favorable for the Sri Lankan listed companies to set their level of WC in an efficient way. The findings also show negative significant relation between the CCC and number of directors, independent directors and meetings; that, increase in the number of all three variables in company shorten the CCC and then lead to value creation of the companies.

### 7.1. Limitations of the Study

The followings are the limitations of this study:

- The study examines the corporate governance practices of companies listed on the CSE only. Non-listed firms may have corporate governance practices with different characteristics to maintain shorter CCC.
- The study considers corporate governance practices that are recommended by the ICASL (2013) guidelines and previous studies. There may be other corporate governance practices such as board of directors' attitudes, ownership concentration, CEO tenure and cultural differences that influence the level of CCC.
- 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.

## 7.2. Future Research

Future studies may examine the impact of corporate governance practices on CCC by using samples of listed firms from other countries to see if same relationships exist.

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