

The Influence of Corporate Governance Practices on Efficiency of Working Capital Management: Evidence from Leading Emerging Stock Markets of South Asia

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Abstract

The study strives to analyze how corporate governance practices influence management of working capital of non-financial firms in the emerging stock markets of Pakistan and India. Our sample comprised 196 non-financial listed firms of the KSE of Pakistan and the BSE of India between 2008 and 2014. The pooled OLS technique has been employed to analyze the impact of corporate governance practices on the efficiency of working capital management. The findings reveal that corporate governance practices significantly impact working capital management of listed firms of the two countries. The overall results of the control variables are also significant and positive in most cases. According to the findings, it is suggested that the policy makers in the field of corporate governance institute an appropriate corporate governance model that must ensure the solvency, endurance and profitability of firms. This paper contributes to the literature related to emerging markets in terms of the association between governance and management of working capital. The outcomes are also valuable for beneficiaries such as potential investors, corporate financial managers, economic agents, and particularly shareholders.

Key Words: Corporate governance, Working capital management, Profitability, Pooled OLS

Introduction and Background of Study

The presence of good corporate governance practices in a business support the protection of investors and signifies that capital resources are utilized in an efficient manner. Efficiency of working capital management through good corporate governance practices has a positive effect on the liquidity of a firm. The global financial crisis exposed the consequences of instituting robust governance practices within firms at an international level. The efficient supervision of working capital is vital for all firms. In this study, management of working capital refers to the supervision of net short-term resources through corporate governance practices.

Corporate governance mechanism is a process that ensures that the firm is protecting the interests of stakeholders in a way that enhances the wealth of the shareholders and improves organizational financial performance by monitoring the performance of managers (Velnampy, 2013). Management efficiency of working capital presages the management of current assets. Furthermore, efficient financial management decisions regarding capital structure, the protection of short-term capital along with long-term capital and retaining solvency are the major functions of firms (Achchuthan & Rajendran, 2013). Corporate governance is a mechanism of stakeholder protection implemented through accountability of the managers (Graham et al., 2003). This means that corporate governance takes into consideration accountability, directions, and control mechanisms regarding policy implementation towards effective management practices (Gill & Biger, 2013). According to Morin & Jarrell (2000) corporate governance system provides protection to all stakeholders. Moreover, corporate governance

practices are those strategies that may be articulated to achieve a firm's objectives with the interest of stakeholders in mind.

Working capital management is a short-term objective of the firm, and is considered to be one of the major concerns in corporate financial management decision-making, which can influence a firm's profitability and liquidity. In the context of a Canadian firm, Gill & Mathur (2011) found a positive impact of corporate liquidity on sales growth. Saddour (2006) documented that the level of cash is negatively influenced by company size, high leverage and the liquidity of the assets of the companies in France. In this context, the corporate boards have major responsibilities to institute an effective safeguarding system that strengthens a firm's internal control, the veracity of data and risk management; it further sets value standards vis-à-vis appropriate accounting policies and financial regulations. Additionally, working capital management is crucial, particularly in non-financial firms. Since working capital has a direct impact on company performance, therefore if the company does not pay attention to the management of working capital, it may lead to bankruptcy (Raheman et al., 2010). This entails that management of working capital is a significant factor in maintaining a company's liquidity, survival and profitability (Raheman et al., 2010).

According to Keynesian postulates, a firm's cash holding is a demand for transaction and protective intentions. The transaction motive, according to Kim et al., (2011) point of view, plays a vital role in clarifying the factors of cash holdings. Governance practices may result in reduction of excessive cash holding. Generally, theories such as Trade-off Theory (TOT), Pecking Order Theory (POT) and Free Cash Flow Theory (FCFT) account for such cash holding

pattern. In relation to trade-off theory, the firms may fix the level of cash holdings because of the marginal benefits such as, (1) the likely decline in financial distress; (2) during financial constraints agreeing on pursuance of investment policy, and (3) the cost minimization in case of external fund raising (Ferreira & Vilela, 2004). In terms of liquid assets, the opportunity cost of capital invested is the major cost of cash holding. According to Myers (1984) POT proposes that firms should firstly prefer retained earnings (internal equity) to finance investments; if not, then they prefer financial assets through safe debt as well as risky debt. Finally, firms prefer to finance investment with external equity with the intention of minimizing the costs of information asymmetry and other financing costs. In addition, Anjum & Malik (2013) argued that maintaining the right level of liquidity is crucial to a firm's smooth operation. Thus upholding a level of cash within a business organization described working capital policies and desires dividend payments, asset management and corporate investment (Opler et al., 1999).

Within organization, board is accountable for working capital strategies such as, management of cash, accounts receivable management, the purchase of inventory and the maintenance level of accounts payable. Thus, the size of the board plays a significant role in a company's operational activities such as; maintaining a high liquidity position through a high volume of accounts receivable collection and cash conversion period consequently. Weak strategies regarding working capital, such as accounts payable and receivable and inventory management, negatively influence the cash conversion cycle. Maintaining a high cash balance policy may redirect management's own risk aversion, and this in turn may cause an

agency problem, because the board of directors then upholds balances and do not maximize the wealth of shareholders (Gill & Shah, 2012). The maximum return on invested capital can be achieved by shareholders if a company manages its working capital efficiently through good corporate governance practices. There is an adverse impact of weak corporate governance on accounts receivable and management of cash (Harford et al., 2008), as well as on inventory turnover, cash conversion cycle and accounts payable. In the light of above discussion, this paper's objective is to examine the influence of corporate governance on efficient management of working capital.

In existing literature there are only limited studies to gauge the influence of corporate governance on the efficient working capital management of firm operating in Pakistan and India. This study emphasizes the relationship between the various dimensions of corporate governance and components of working capital management. As a consequence, this paper adds empirical evidence to existing theory. Therefore, firms should take steps to develop a better framework of working capital efficiency through appropriate corporate governance practices to accomplish critical goals such as continued existence, liquidity and profitability. To conclude, this study focuses on the influence of corporate governance practices on the management of working capital in the context of emerging markets such as Pakistan and India. The findings may be fruitful as they may be different from other studies. As a result, this gap leads to this study's motivation to obtain the answer to the following research question:

How corporate governance practices influence the efficiency of working capital management?

Objectives of the Study

Good working capital management is vital to a firm's profitability, and consequently the firm's profitability is essential to the payment of short-term obligations and dividends to stockholders. Therefore, this study examines the influence of corporate governance practices on company profitability and efficient management of working capital. Following are the main objectives of the study:

To analyze the corporate governance practices impact on the efficiency of working capital management.

To analyze that how corporate governance help achieve optimal management of short term obligations

To analyze the impact of corporate governance on efficient dividends management

Scope of the Study

This study's findings may benefit the management of non-financial firms to effectively manage their working capital. This study may also offer an understanding of the importance of maintaining an optimal level of working capital, and postulates the existence of a relationship between the existing level of working capital and the level of profits. Several policies on the management of working capital are also addressed in this study. The researchers are also of the view that firms need to adapt to the changing needs of the current business setup and the requirements of various suppliers and providers of services. Therefore, manufacturing firms and other affiliated firms in the countries studied may derive great benefit from this study.

This study contributes in an important way to the literature concerning the association between corporate governance and

working capital management. It is expected that the findings will be valuable to academicians, who may endeavour useful research gaps that may provoke interest in future research.

The remainder of this study is organized thus: section 2 presents the current literature on the influence of corporate governance on working capital management; section 3 describes the variables, the data collection process and the econometric model specification; section 4 discusses the empirical results, and conclusion is provided in section 5.

Literature Review

In corporate finance, the importance of corporate governance has been acknowledged in the last two decades due to global crises such as, regional financial crises and economic reforms (Claessens & Yurtoglu, 2013). Corporate governance plays a significant role in economic growth, and increases the confidence of a company's stakeholders as a protective tool. Good corporate governance practices are essential to enhancing investor confidence and attracting capital by reducing risk and improving performance of firms (Velnampy, 2013).

In general, practitioners describe the corporate governance evolution in ownership and control changes relationship. The notion of corporate governance was rapidly adopted globally, yet with few important differences because conditions vary from country to country (Mulili & Wong, 2011). In this framework, corporate governance can be approached through two main theories: Agency theory and Stewardship theory. In corporate finance literature, there is a collective belief regarding substance of efficiency of working capital (Raheman & Nasr, 2007) because it is considered a major

factor that affects corporate investment decisions (Velnampy, 2013). The working capital management efficiency consists of planning and controlling excessive investments in current assets over current liabilities, and avoiding insufficient current assets (Mehmet & Eda, 2009). Cash conversion cycle is considered as an important proxy to measure the efficiency of working capital management (Mehmet & Eda, 2009). In relation to Harris (2005) the management of capital is a direct mechanism for ensuring a firm's ability to finance the excess of assets over current liabilities. In accordance with Azam & Haider (2011) working capital covers activities of firm related to core products and services. As a result, management of working capital has been identified as one of the major concerns in corporate financial management.

In general, governance practices are associated to shareholder value, firm capital structure and company performance (Kajananthan, 2012; and Heenetigala, & Armstrong (2011). Drobetz & Gruninger (2007) documented the determinants of corporate cash holdings for a comprehensive sample of 156 Swiss non-financial firms from 1995 to 2004, where they found a positive relationship between corporate cash holdings and CEO duality. However, an insignificant association was documented between corporate cash holdings and board size. Gill & Mathur (2011) documented a positive impact of corporate liquidity on sales growth in a Canadian context. Saddour (2006) found that, in France, the level of cash holding is negatively influenced by high leverage, the level of liquidity of assets and the size of the company.

Kuan et al. (2011) studied Taiwan companies' data and found the corporate governance had an impact on the control of the

separation of rights, the pledge ratio of director ownership, ratio of independent directors and the cash policy fluctuations among family-controlled and non-family-controlled firms. Furthermore, they also documented the significant effect of seat separation control and cash flow rights, along with CEO duality on a company's cash policy regarding different cash holdings levels.

Lau & Block (2012) found for a USA firm that the firm's founders hold a substantially higher level of cash than in family firms. Moreover, they documented that the founder's management and cash holdings have a positive influence on the value of the firm, signifying the presence of managerial support to moderate the agency costs of cash holdings.

Gill & Shah (2012) indicate that CEO duality and board size have a positive influence on corporate cash holdings. Moreover, Valipour, Moradi & Farsi (2012) evidence a negative association of sales growth with the cash conversion. In this framework, Kieschnick, Laplante & Moussawi (2006) examined the determinants of working capital and its effects. For this purpose, they selected US public corporations as a study sample between 1990- 2004; they determined that sector practices, company sales growth, firm size, executive compensation, the ratio of outside directors and the ownership of the CEO considerably influences effectiveness of working capital management. Moreover, they highlighted that working capital management is more effective when a large number of outsiders are in board, and the highly compensated CEO's firms working capital management performance is higher.

In a similar context, Harford et al., (2008) found that corporate governance has a significant association with a company's

cash holdings in US; they find that weaker organizations with weaker governance practice have low cash reserves. Once it comes to cash distribution among shareholders, weaker corporate governance firms preferred shares to be repurchased, instead of dividend payments. The firms with excess cash and low shareholder rights have poor productivity (Harford et al., 2008). Cash is the most liquid component of working capital and cash holding is crucial because it is used to pay off current obligations. However, there is a need to accumulate cash reserves as a safeguard; in addition, the schedule of cash movement generally presents an image of positive liquidity. Therefore, the optimal cash holding based on the need of the firm that enables a business to continue. According to Islam (2012) cash holdings allow for optimal investment and have a strong impact on corporate decisions. Furthermore, the results showed that cash holdings have a significant relation with net working capital, volatility of cash and the Tobin's Q of the firm. However, this does not necessarily make good business sense; keeping excessive working capital is not good for the firm, since it has an adverse impact on the wealth of shareholders. Consequently, for the firm, a working capital management policy is essential, and good corporate governance practices are obligatory to generate and maintain rigorous cash holding policies.

The board size and the audit committee play a significant role in framing sound strategies in working capital management. Board size helps to maintain a pertinent amount of working capital within firms (Gill & Shah, 2012), and a long-serving CEO also helps to increase the efficiency of working capital management. In addition to this, Gill & Shah (2012) also explain that the CEO works for the

benefits of the management team and defends the team's position when the company holds too much cash. Moreover, the CEO works with board members and frames the policies for working capital management.

Kyereboah-Coleman (2008) argues that self-regulating reduces agency costs. In relation to Jensen's (1993) point of view, the nonexistence of independent leadership generates trouble for a board. Likewise, Fama & Jensen (1983) argue that the deliberation of power and control in one individual may hinder a board's efficacy in monitoring management. However, Kyereboah-Coleman (2008) points out that the CEO's double role gives the CEO the opportunity to execute decisions without the unnecessary impact of bureaucratic structures.

Nadiri (1969) a pioneering researcher of working capital management, constructed a model to examine the management efficiency of working capital. In this study, Nadiri collected data about the cash holdings of US manufacturing firms between 1948 and 1964 to develop a model which indicated the desired level of real cash balances. The results of this pioneering study revealed that the real cash balances demand can be estimated through output ratio. Dittmar et al., (2003) find that the issue of agency relation is an important determinant of cash holdings. Thus, strong corporate governance practices are necessary to the smooth functioning of firms.

The association between the corporate governance and cash policy of firms has been examined by Kuan et al., (2011). They found differing impacts of corporate governance on family versus non-family-controlled firms, with the separation of control rights and cash

flow rights and the percentage of independent member of board on cash holding policy. In addition, they found that separation control rights and cash flow rights significantly influence a firm's cash policy.

Lau & Block (2012) also found that initiators and family controls had a significant influence on amount of cash holdings. Their results indicate that non family owned firms hold a considerably higher level of cash as compared to family-controlled firms depicting a positive interaction effect between these variables. Moreover, Gill & Mathur (2011) show that sales growth had a positive influence on corporate liquidity.

In current study the concept of corporate governance practices and the management efficiency of working capital are analyzed. Literature gap exists in the studies regarding corporate governance's impact on the management efficiency of working capital. Hence, it is concluded that there exists only a limited body of literature on this topic, and the study of the influence of corporate governance on the management efficiency of working capital is vital in order to fill this gap in the literature in emerging stock markets.

The following hypotheses are developed to fulfill the objectives of this study:

H₁: Corporate governance practices have a significant impact on the cash conversion cycle.

H₂: Corporate governance practices have a significant impact on current liquidity.

H₃: Corporate governance practices have a significant impact on accounts receivable.

H₄: Corporate governance practices have a significant impact on accounts payable.

Research Methodology

In this study, the researchers employed a quantitative research method, because this technique delivers fundamental measurements of the relationships between empirical and mathematical observation. There are various measures that can account for the influence of corporate governance on the efficiency of working capital management. Therefore, we take into account those measures of corporate governance and working capital which are frequently referred to in the literature. To remain consistent with existing literature, working capital management has been taken as a dependent variable which consists of inventory turnover (average conversion period), accounts payable time (average payment period), accounts receivable time (average collection period), the current ratio and the cash conversion period. Corporate governance variables consist of board size, board independence, CEO tenure, CEO duality and ownership concentration as well as board meetings. The definitions and the measurements of all the variables employed in this empirical study are explained in Table 1.

Data regarding all variables were gathered from DataStream, the annual reports of firms and the databases of the KSE and BSE. We obtained the data of 196 non-financial listed firms, selected on the basis of their size and the availability of data. The secondary, panel, data on working capital management and corporate governance practices variables were collected from 2008 to 2014. In addition, the sampled firms which are listed in Pakistan on the KSE and India on the BSE.

With the aim of analyzing the consequences of corporate governance on management of working capital, we employed

working capital as a dependent variable and corporate governance as an independent variable. The performance variable is return on assets (ROA), sales growth and the firm size variable as a control variable in this study.

Table 1. *Proxy variables and their measurements*

Concept /Variable/ Measurement	Authors
<i>Corporate governance practices</i>	
<i>Board size (BODSIZE):</i> Total number of directors on the board	Heenetigala, & Armstrong (2011); Kajanathan (2012)
<i>Board committees (BC):</i> Total number of audit and remuneration committees.	Kyereboah-Coleman (2008).
<i>Board Independence (BIND):</i> % of outsiders on the board	Sautner & Villalonga (2010); Ganiyu & Abiodun (2012); among others
<i>Frequency of Board meetings (FOBM):</i> Total number of board meetings in an accounting year	Lipton & Lorsch (1992) ; Jensen (1993), among others
CEO tenure(CT); Number of years CEO served the firm	Ganiyu & Abiodun (2012); among others
<i>CEO Duality(CD):</i> This is dummy variable, 1 if the CEO is Chairman, otherwise, 0	Ganiyu & Abiodun (2012); among others
<i>Ownership Concentration (OC):</i> This sum of the squared ownerships of shareholders more than 5% of a firm.	Sautner & Villalonga (2010); Ganiyu & Abiodun (2012); among others
<i>Working capital management</i>	
<i>Current ratio (CR);</i> Current assets/current liabilities	Ganesan (2007); Gill & Biger (2013), Valipour et al. (2012), among others.
<i>Cash conversion Cycle (CCC)</i> (No of days AR + No of inventory turnover in days - No of days AP)	Mehmet & Eda (2009); Azam & Haider (2011); Raheman et al., (2010), Valipour et al. (2012), among others.
<i>Accounts receivable (AR)</i> (Accounts receivables*365/sales)	Tryfonidis (2006), Gill & Biger (2013), Raheman et al., (2010), among others
<i>Inventory Turnover(INV)</i> (Accounts payables*365 days /COGS)	Tryfonidis (2006) ; Gill, & Biger (2013), and among others
<i>Accounts Payable (AP)</i> (Accounts payables*365/ purchases)	Tryfonidis (2006), Gill & Biger (2013), Raheman et al., (2010), among others
<i>Sales growth(SG);</i> (Current year sales - previous year sales)/previous year sales	Valipour et al. (2012), Gill & Biger (2013), and among others

<i>Firm size (SIZE):</i> Log of total assets of the firm	Gill & Biger (2013), and among others
<i>Firm performance</i>	
<i>Return on assets (ROA):</i> Net income /Total income	Gill & Biger (2013), and among others

Source: Developed from Literature by authors

The variables are selected from the existing literature related to corporate governance and working capital. In this respect, the working capital variable accounts receivable (AR) turnover is computed as $[365 \times \text{AR}/\text{Sales}]$. This characterizes average collection periods of payments from customers; a lower number is considered good for firms, and it reflects management efficiency. Another working capital variable is the number of days needed to clear the accounts payable (AP), which reveals the average number of days a firm takes to pay accounts payable to their supplier, and it is calculated as $[365 \times \text{AP}/ \text{average net purchases}]$. A higher account payable figure indicates that firms take a relatively longer period to settle their payment commitments with suppliers. Inventory turnover (INV) indicates the average number of days the stock is detained by the firm, and it is computed as $[365 \times \text{net inventory}/\text{net average purchases}]$. A higher inventory conversion period figure signifies a greater investment in inventory for a particular level of operations. By using these three factors jointly, we can calculate the cash conversion cycle (CCC) as $[\text{number of days' accounts receivable} + \text{the number of inventory turnover in days} - \text{number of days' accounts payable}]$. A higher level of cash conversion cycle indicates a high investment in net short-term assets, and hence a greater need for the financing of short-term assets.

Additionally, we employed control variables such as size of the firm (SIZE), which is measured as the logarithm of assets and

sales growth (SG) measured as $(sales_1 - sales_0) / sales_0$). Moreover, the return on assets (ROA) has been taken as a performance variable; it is measured as [net income /total assets], and it is observed that corporate governance has a positive (significant) impact on the performance of a firm. The effect of corporate governance practices on the management efficiency of working capital has been modelled by numerous researchers. In this study, a general model has been adopted that expresses the linkage between corporate governance and the management efficiency of working capital. We employed firm-level (panel) data; hence, the pooled OLS model is suitable for analysis. The independent variables are determinants of working capital and the dependent variables are the dimensions of corporate governance. Here, working capital is expressed as a function of the current ratio, cash cycle, accounts receivable, accounts payable and inventory turnover (INV), while corporate governance is expressed as a function of board size, Board independence, Board committees, Frequency of Board meetings, CEO Duality, ownership concentration and CEO tenure. The ROA, sales growth and Size are employed as control variables in this study. The pooled model can be mathematically expressed as follows:

$$CR_{it} = \alpha + \beta_1 BODSIZE_{it} + \beta_2 FOBM_{it} + \beta_3 BC_{it} + \beta_4 CT_{it} + \beta_5 CD_{it} + \beta_6 OC_{it} + \beta_7 BI_{it} + \beta_8 ROA_{it} + \beta_9 SIZE_{it} + \beta_{10} SG_{it} + \epsilon_{it}$$

$$INV_{it} = \alpha + \beta_1 BODSIZE_{it} + \beta_2 FOBM_{it} + \beta_3 BC_{it} + \beta_4 CT_{it} + \beta_5 CD_{it} + \beta_6 OC_{it} + \beta_7 BI_{it} + \beta_8 ROA_{it} + \beta_9 SIZE_{it} + \beta_{10} SG_{it} + \epsilon_{it}$$

$$AR_{it} = \alpha + \beta_1 BODSIZE_{it} + \beta_2 FOBM_{it} + \beta_3 BC_{it} + \beta_4 CT_{it} + \beta_5 CD_{it} + \beta_6 OC_{it} + \beta_7 BI_{it} + \beta_8 ROA_{it} + \beta_9 SIZE_{it} + \beta_{10} SG_{it} + \epsilon_{it}$$

$$AP_{it} = \alpha + \beta_1 BODSIZE_{it} + \beta_2 FOBM_{it} + \beta_3 BC_{it} + \beta_4 CT_{it} + \beta_5 CD_{it} + \beta_6 OC_{it} + \beta_7 BI_{it} + \beta_8 ROA_{it} + \beta_9 SIZE_{it} + \beta_{10} SG_{it} + \epsilon_{it}$$

$$CCC_{it} = \alpha + \beta_1 BODSIZE_{it} + \beta_2 FOBM_{it} + \beta_3 BC_{it} + \beta_4 CT_{it} + \beta_5 CD_{it} + \beta_6 OC_{it} + \beta_7 BI_{it} + \beta_8 ROA_{it} + \beta_9 SIZE_{it} + \beta_{10} SG_{it} + \varepsilon_{it}$$

Where, CR_{it} = current ratio of firm i in time t ; AR_{it} = Accounts receivables of firm i in time t , SG_{it} = Sales growth of the firm i in time t , INV_{it} = Inventory turnover of the firm i in time t , AP_{it} = Accounts payables of firm i in time t , CCC_{it} = Cash conversion cycle of firm i in time t , $BODSIZE_{it}$ = Board size of the firm i in time t , BC_{it} = Board committee of the firm i in time t , BI_{it} = Board Independence of the firm i in time t , CD_{it} = CEO Duality of the firm i in time t , OC_{it} = ownership concentration of the firm i in time t , and CT_{it} = CEO tenure of the firm i in time t , $SIZE_{it}$ = Size of the firm i in time t , ROA_{it} = Firm performance of the firm i in time t and ε_{it} = error term.

Results and Discussion

Various statistical methods have been employed to examine the impact of corporate governance on the efficiency of working capital management for the firms listed on the KSE and BSE from 2008 to 2014. The descriptive statistics described the characteristics of the sample, and are involved in drawing conclusions about a sample of data. Furthermore, pooled OLS analysis was used to observe the corporate governance practices' impact on the management of working capital. Table 2 presents the descriptive facts of the variables in this study. The description of the descriptive statistics is as follows: the mean values of the cash conversion cycle (CCC) is 71.06 and 65.15 days for Pakistan and Indian firms, respectively, the cash flow of firms increases through the adoption of a good credit policy. In addition, other elements of working capital, such as the current ratio, accounts receivable, accounts payable and

inventory turnover are also within the line of industry standard. However, Indian firms' working capital management efficiency is generally higher than that of Pakistan's firm. In relation to the current ratio, Pakistan firms and India have favorable working capital mechanisms. The overall sales growth of the Pakistani firms is 12.6%, and for the Indian firms 13.1%, while the level of corporate governance practices is better in the Indians firm than the Pakistani firms; thus, the return on assets is also better.

Table 2. *Descriptive statistics of independent, dependent, and control variables*

Variables	Pakistan			India		
	Mean	Median	Std. Deviation	Mean	Median	Std. Deviation
CR	1.194	00.580	1.451	1.851	0.982	00.893
AP	56.982	39.504	21.508	49.602	35.508	16.259
AR	49.451	35.501	15.802	46.251	31.501	10.982
CCC	71.062	42.509	25.107	65.150	52.105	31.506
INV	78.591	45.649	29.89	68.50	54.50	24.701
SG	0.1264	0.121	0.096	0.131	0.105	0.095
BODSIZE	8.202	7.506	2.258	9.456	08.506	1.872
BI	2.508	1.453	3.504	3.109	1.803	2.508
BC	2.404	2.002	01.06	2.658	2.508	0.984
OC	0.8109	0.710	0.830	0.780	0.701	0.980
FOBM	7.504	6.001	01.89	08.2	07.504	1.352
CD	0.3103	0.257	0.762	0.298	0.206	1.038
CT	9.134	7.363	1.928	11.369	9.054	8.128
SIZE	2.108	1.750	0.987	2.358	1.952	1.062
ROA	7.157	6.851	2.804	8.326	7.724	3.896

The Pearson correlation results indicate that accounts payable management and cash conversion efficiency have a positive association with board size and the frequency of board meetings; however, inventory turnover and sales growth efficiency positively correlated with board size, CEO duality and ROA. By contrast, the

current ratio management and accounts payable efficiency are negatively associated with board size and FOBM.

Table 3. *Correlation of Corporate governance and working capital efficiency of Pakistan*

<i>Variables</i>	<i>AR</i>	<i>CR</i>	<i>CCC</i>	<i>SG</i>	<i>AP</i>	<i>INV</i>
BODSIZE	0.274***	-0.097	0.109	-0.147	0.184**	0.189***
BC	0.151**	0.091	-0.069	-0.134	0.171**	0.136
BI	0.034**	0.079	0.109	0.120	0.160	0.098
OC	0.108	0.297	0.089	0.193	0.137	0.068
CD	0.145**	0.190 **	-0.237**	-0.156*	0.138**	-0.309**
CT	0.118	-0.160	-0.109	0.201	0.133**	0.110
FOBM	0.023**	-0.209	0.139**	0.189	0.037*	-0.274
SIZE	0.018	.029**	0.086**	-0.018	0.024**	0.085
ROA	0.120**	.193**	0.114	0.208	0.110	0.024**

*Note: Current ratio(CR); Accounts receivables (AR); Sales growth(SG); Inventory turnover(INV);Accounts payables(AR);Cash conversion cycle(CCC); Board size(BODSIZE); Board committee(BC); Board Independence(BI); CEO Duality(CD); Ownership concentration(OC); CEO tenure (CT); Size of the firm(SIZE); Firm performance(ROA). ***= Significant at 1%, & **= significant at 5 % level of significance.*

Table 4. *Correlation of Corporate governance and working capital efficiency of India*

	<i>AR</i>	<i>CR</i>	<i>CCC</i>	<i>SG</i>	<i>AP</i>	<i>INV</i>
BODSIZE	0.234***	-0.105	-0.109**	-0.147**	0.190*	0.189
BC	0.151	0.089	-0.069	-0.134	0.140	0.136
BI	0.156	0.360	0.135	0.415	0.179	0.168
OC	0.094	0.139	0.192	0.188**	0.064	0.072
CD	0.176**	0.254	0.163	-0.20	0.169	0.290
CT	0.104	0.169	0.370	0.101	0.124	0.097
FOBM	-0.238	-0.109	0.108**	-0.147	-0.194	-0.218
SIZE	-0.031	-0.107	0.061	-0.094**	-0.079**	-0.109
ROA	0.175***	0.189	0.209	0.184	0.165	0.192

*Note: Current ratio(CR); Accounts receivables (AR); Sales growth(SG); Inventory turnover(INV);Accounts payables(AR);Cash conversion cycle(CCC); Board size(BODSIZE); Board committee(BC); Board Independence(BI); CEO Duality(CD); Ownership concentration(OC); CEO tenure (CT); Size of the firm(SIZE); Firm performance(ROA). ***= Significant at 1%, & **= significant at 5 % level of significance.*

We also employ the VIF tests to identify how much multicollinearity (correlation between predictors) exists in an

analysis, because due to this issue the variance of the regression coefficients may be unstable. The results in table 5 indicate that multicollinearity problem does not exist in the models.

Table 5. Variance *Inflation Factors (VIF)* for the Pakistan and India market

Variables	Pakistan	India
BODSIZE	1.869	2.378
BC	2.346	2.486
BI	1.894	1.934
OC	1.679	2.426
CD	2.286	2.584
CT	2.567	2.496
FOBM	2.398	2.107
SIZE	1.806	2.334
ROA	2.547	2.196

The Pooled OLS technique was employed to investigate the impact of corporate governance on working capital management. The variable working capital was employed as a dependent variable (with its each dimension used) and the dimensions of corporate governance practices were used as independent variables. Tables 6 and 7 present the results of the Pooled OLS analysis for the cash conversion cycle and corporate governance practices. The results show that corporate governance practices influence the cash conversion cycle. Corporate governance practices' predictive power of the cash conversion cycle is about 49.7% for Pakistan, and 46.9% for India and most of the corporate governance dimensions are statistically significant. Therefore, the null hypothesis is rejected, and we can conclude that governance practices have a considerable impact on the cash conversion period. Other working capital variables are also significantly influenced by corporate governance variables as shown in the tables.

Table 6. *Pooled OLS Results for Pakistan*

Variables	CCC	CR	AR	AP	INVT
BODSIZE	-0.049***	0.4486**	0.6742**	0.3495***	-0.1560**
FOBM	0.0314**	0.1968**	0.1367**	0.2854**	0.1924
BI	0.0896	0.109**	0.0970**	0.1268	0.1086**
BC	0.3274**	0.206	0.1264**	0.1192	-0.0954
CD	-0.1192**	0.0278**	-0.0864	0.0394**	0.1895**
OC	0.2148**	0.1593	0.1964	0.1280	0.2174
CT	-0.1989	-0.1783**	-0.1468	-0.1249**	0.1694**
SIZE	0.2914**	0.1268**	0.3654**	0.1896*	0.3016
SG	0.1896	0.3619	0.4914	0.5696	-0.4419
ROA	0.1954**	0.1396	0.1268**	0.1094	0.1486**
Ind. Dummy	Yes	Yes	Yes	Yes	Yes
Time Dummy	Yes	Yes	Yes	Yes	Yes
R-Square	0.4976	0.3950	0.3794	0.3619	0.4162
F-value	1.160**	1.350**	1.430**	1.049**	1.290**

Note: Dep; CCC, CR, AR, AP and INVT; ***= Significant at 1%, & * = significant at 5 % level of significance.

Table 7. *Pooled OLS Results for India*

Variables	CCC	CR	AR	AP	INV
BODSIZE	-0.0516***	0.0914***	0.0834**	-0.0926**	0.0195***
FOBM	0.2196**	0.1687**	0.1293**	0.2084**	0.2056
BI	0.1948	0.1642	0.0896	0.0760	0.1562
BC	0.1094**	0.1158	0.1429 **	0.0984	0.1086**
CD	-0.1846**	0.1028**	-0.1089	0.1036**	0.0970**
OC	0.0218**	0.0159**	0.0198	0.0128**	0.1096
CT	-0.0974	-0.1798**	-0.1442**	-0.1284**	0.1847**
SG	0.1096	0.1076	0.0359	0.4397	0.1289
SIZE	0.1784	0.1129**	0.1366**	0.1084**	0.0957
ROA	0.1758	0.0956**	0.1048	0.1187**	0.0996**
Ind. Dummy	Yes	Yes	Yes	Yes	Yes
Time Dummy	Yes	Yes	Yes	Yes	Yes
R-Square	0.469	0.456	0.475	0.398	0.416
F-value	1.163**	1.145**	1.153**	1.174**	1.189**

Note: Dep; CCC, CR, AR, AP and INVT; ***= Significant at 1%, & ** = significant at 5 % level of significance.

Decisions taken regarding the current ratio (current liabilities/current assets) are influenced by corporate governance such as, board size, the board Committee and the frequency of board meetings. However, CEO duality, ownership concentration and CEO

tenure have no impact on decisions regarding the current ratio. This signifies that corporate governance practices have a significant impact on current ratios. Overall, the predictive power of corporate governance practices on the current ratio is about 39.5% for Pakistan, and 45.6% for India.

Decisions regarding the other components of working capital are also affected by corporate governance practices such as board size, board committee, CEO duality, CEO tenure and the frequency of board meetings. According to the model summary results, overall, the predictive power of corporate governance practices on the other components of working capital, such as accounts payable, accounts receivable and inventory turnover is better for India as a compared to Pakistan.

The overall results of the control variables such as firm size, sales growth and the firm performance measure ROA are consistent with those of previous studies. The coefficient of firm size and sales growth are significant and positive in most cases. This confirms that firms listed on the KSE and BSE are likely to grow faster, they generally have extra intangible assets and implement improved corporate governance practices. The accounting measure ROA is positive and significant in most cases. On the whole, the results show that corporate governance has a significant impact on the components of efficient working capital management.

Conclusion

The association of corporate governance with working capital has been widely analyzed in developed financial markets, yet few studies have been conducted on how the dimension of corporate governance influences the working capital of companies in emerging

stock markets. In this study, we fill this gap by examining the association between the dimension of corporate governance and working capital management for Pakistani and Indian firms. To use as indicators of firm-level governance, we employed the following dimensions of corporate governance: board size, board committee, frequency of board meetings, CEO duality, CEO tenure and ownership concentration. We obtained data of 196 non-financial firms actively trading, selected on the basis of their size and the availability of data. The sample comprises more than 65% of the market capitalisation on the KSE and BSE.

The findings conclude that corporate governance practices have a significant influence on the components of working capital management. The major components of working capital decisions, such as the cash conversion cycle, the current ratio, accounts payable and the accounts receivable are influenced by corporate governance practices in Pakistan and India. In this study, we have documented that a single firm may have different effective policies regarding working capital management efficiency, which are formulated through corporate governance practices in Pakistan and India.

Finally, in the context of Pakistan and India, corporate governance practices should be revised. In this framework, the board's standpoint should be espoused regarding corporate governance reforms, according to stakeholder approach in future. Moreover, there is a need to set up an active audit committee, and also for the tenure of the CEO to be enhanced to accomplish the optimality of working capital components. Furthermore, the results suggest that board of directors can create value for their shareholders through the establishment of the appropriate oversight on

management actions. In addition, more independence and power should be fixed to overseeing committees within the organization, especially; the functions and roles of the remuneration and audit committees should have more independence. This may smooth the progress of transparency and accountability within the organization. Corporate financial managers should focus on achieving improved strategic results in their vibrant and spirited environment. At the national level, there is a need to harmonize corporate governance across all firms, since some of the firms had a different nature of corporate governance practices, which therefore leads to differences in performance in the management of working capital.

The future research may explore the generalizations of the findings beyond Indian and Pakistani firms. Also a similar type of study may be conducted on ownership structure because it affects governance practices and having an impact on efficient working capital management.

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