Moderating Effect of Corruption in Relationship of Cash Holding and Corporate Governance with Firm's Performance: Evidence from Pakistan

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Abstract

The main purpose of the study is to check the influence of cash holding and corporate governance on firm's performance, while taking corruption as a moderator. Moreover, leverage (Debt to Equity), firm size and tangibility have been incorporated as control variables. To check the empirical status of the relationship, the data of 70 non-financial firms and for 12 years (2008-2019) have been gathered. After fulfilling, the required assumptions, the descriptive statistics and inferential statistics have been applied. As panel data has been used, so pooled regression has been run to check the empirical status of the hypotheses. The results are depicting that cash hold and corporate governance influence the firm's performance significantly and positively. Corruption also affects the firm's performance. Moreover, the corruption is showing moderating impact in relationship of cash holding and corporate governance with firm's performance. The results of the study are useful for the concerned laws enforce institutions to focus on corruption so that the effect of corporate governance and cash holding on firm performance may be enhanced. Limitations and future directions of the study have also been discussed.

Keywords: cash holding, corporate governance, firm Performance

Introduction

Cash holding may be defined as assets held by the company in shape of cash, as opposed to stocks, bonds, property and so on. Cash and cash equivalents are the mainly liquid category of asset in the balance sheet of companies (Iuliana & Riana, 2015). Firms are required to have cash and cash equivalents perform their daily basis operations. The

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difference among cash inflow and cash outflow are the cash and items of cash equivalents in the balance sheet. According to Gill and Shah (2012), cash holding is described as cash on hand, or the cash readily available for the purpose of investment in physical assets and distribution to investors. Because of the importance of cash and its significance in management of working capital, different approaches are used to establish the factors that affect it. Corruption is defined as abuse of delegated power for personal benefit by Transparency International and the impact on cash value and cash holding in companies operating in economies of emerging market. Bhanu and Kannadhasan (2019) ascertained that cash holdings have a positive relationship with corruption, and that by managing cash holdings to upwards, it is possible to benefit in a corrupt environment by cash trading. In addition, cash holding brings value to businesses. However, it does not matter if the company is operating in a high corrupt environment with low protection of investor. In general, the proof suggests that corruption plays a vital role in shaping companies' cash policies of emerging market. Companies operating in a more corrupt atmosphere have less reserve of cash and lean to issue more dividends. Companies are likely to decrease their reserves of cash when working in a unionized industry to gain advantage in the process of bargaining with unions. Put another way, companies avoid the extraction of the cash by external parties by sending signals that liquidity is low.

Financial constraints such as access to capital markets and debt ratios indicate that there is no association between cash and business performance, but companies with large investment opportunities are highly valued. Rocca et al. (2017) described the palliative role of country-level corruption in the relationship between cash holdings and the company's financial performance and resulted that cash holding has a negative effect on firm performance if there is a high level of corruption in the country.

Myint (2000) explained that corruption is too old as human civilization and also is global. It exists not only in developed countries but also in poor nations, the public and private sectors, non-profits and even in institutions which are charitable. Corruption is a major obstacle to good governance. Banerjee et al. (2012) stated that as a result, anti-corruption policy has been central to growth approaches in many nations and the World Bank has supported more than six hundred programs of anti-corruption since 1996. The purpose of cash stocking is to create financial flexibility for the company. Rocca et al. (2017) explained that on the other hand, holding of cash may decrease the costs of transaction of dealing with foreign capital markets, and at

the same time it is difficult to access credit, it may be employed as a financial buffer available to the company. On the other hand, cash preparation can lead to opportunistic behavior on the management part.

Rocca et al. (2017) observed that the utilization of cash stock, especially in certain circumstances, may be used in an indistinct manner due to misconduct like bribes, donations, or wages has given to certain economic agents and to promote personal benefits. Khan (1996) described that economy of Pakistan has been consistently grouped with the world's corrupt countries. Pakistan's corruption is close to 10% of GDP, according to World Bank estimates in 1998. Therefore, the elements of corruption in Pakistan need to be studied. Consequently, this study will investigate the moderating impact of corruption on the relationship between cash holding and corporate governance and performance.

The main purpose of the study is to check the influence of cash holding and corporate governance on firm's performance, while taking corruption as a moderator. Moreover, leverage (Debt to Equity), firm size and tangibility have been incorporated as control variables.

Rocca et al. (2017) observed that in the past, the researchers have done research pointing out the mitigation of the impact of corruption in the correlation between cash holdings and corporate performance in the Italian context. However, the study on mitigating the impact of corruption in the association between corporate governance and corporate performance is quiet. Therefore, this survey seeks to determine the mitigation impact of corruption in the impact that holding of cash and corporate governance have on business performance.

Literature Review

According to Melgar et al. (2009), it is important to define corruption as without deep insights into the topic, this can be impossible to develop strategies of anti-corruption. The definition of corruption was created by taking into account the different characteristic of corruption that include moral, political, social, economic, scholars, writers, intellectuals, and multi organizations. However, the main extensively used description is that the corruption is the mistreatment of public power for personal or private gain or benefit. Ahmad and Aziz (2001) includes the Corruption Perception Index of Transparency International, the worldwide competitiveness index of the Forum of World Economic, its Global Competitiveness

Report, the global Country Risk Group index by the Group of Political Risk Services, and the globe the governance indicators, created by virtually all the World Bank (WB), use the similar explanation of public abuse for private gain. All these indices expose the behavior of all official holders, including politicians as well as government officials. Although these indexes tentatively define fraud in a similar manner, there is still no assurance that the positions they generate are constant. Khan (1996) classifies corruption as deviation of behavior from the formal code of conducts that oversee public officials' behavior.

Andvig et al. (2001) describes several major forms of corruption that includes embezzlement, bribery, and coercion and fraud. Ahmad and Aziz (2001) looks at four special corruption indexes, and these indices of corruption generate same results, and they also believe that the results show consistency over the time.

There are several researches that have investigated the impact of excess cash on corporate value. Much of the theory also relates to the effect of corporate governance and excess cash on the value of a company. Many studies propose that surplus cash holding has an optimistic impact on improving corporate value. After findings from around the world, a Chinese researcher, Peng (2006) researched listed company data empirically and obtained same results. The researchers worked on research on surplus cash and its impact on corporate value. Their finding was like to others in that surplus cash holding had a positive impact on the company's performance.

Two other researchers who are Yang and Zhang (2009) research the impact of company governance on holdings of cash in terms of clashes of interest among controlling as well as other shareholders. In this way, they got that cash holdings and company values are positively associated at a significant level of 1%, and can improve the market value of cash holdings by improving the corporate governance. Yanyan, Jinwei, and Hanming (2013) proved from their research that surplus cash could value companies in terms of financial constraints. As well, the worth of surplus cash held by private companies is much higher than that of state-owned enterprises.

Faulkender (2006) observed excess stock returns to establish the difference in limits brought about by various monetary policies and the affect of capital limitations on cash value. As a result, it was shown that the marginal cash value increases according to the level of cash holding ratio and monetary leverage. On the other hands, cash employed to pay dividends, will reduce the cash limit when compared to a share repurchase.

The extensive literature of corporate governance illustrates that corporate governance has had a significant effect on business performance in the disaster by affecting the firm's risk taking and funding policies. Hermalin and Weisbach (2003) explains that it is a noteworthy finding in the literature that there is no considerable correlation between the composition of the board (such as independence of the board) and the business performance. Bhattacharyya and Hodler (2010) recommended the corruption's theoretical model to produce a theoretical model which imitates Slovenia institutional settings.

Anderson, Mansi, and Reeb (2004) represents another explanation of why companies with more boards of independent experienced stock price deterioration during the crisis, encouraged independent members of board to raise capital during the crisis period. Kashyap, Rajan, and Stein (2008) explained that it is very expensive to raise capital during a crisis. It may have led to deterioration in the price earnings ratio during the crisis as it has reasoned asset movements from existing shareholders to debtors.

One of the recent areas of study on the correlation between holdings of cash and corporate performance concentrates on the part of the institutional background in which a company operates a business. Frésard (2010) in an institutional context eases this relationship during numerous features like right of entry to capital markets, cost of capital debt, GDP growth, and growth of the financial system. As for the modest role of corruption, as Chen (2011) recently confirmed, in financially undersized situations with low protection of investor and high levels corruption, cash reserves are highly inefficient and reduce the company's performance. Chen believes that organization will hold cash to attain private gains and pursue their own profit. Rocca et al. (2017) recommends for companies operating in nations that act according to the rules but are more likely to encounter fraud, their performance is affected by a potentially damaging and corrupt system.

Corruption is a significant aspect of the environment of an institutional, which damages market competition and creates distorted political and business associations. Corruption plays a crucial role in establishing corporate governance as well as organizational behavior (La Rocca, Cambrea, & Cariola, 2017). Kalcheva and Lins (2016) studies the affect of office corruption on firms' monetary policy and reveals that the corruption encourages firms to protect their liquid assets. Cash is the mainly valuable asset, and allocation of cash directly affects the company's performance. Second, the impact of

corruption on firms' cash holdings is contentious. Some researchers argue that corruption harms rules based on market and institutional control, directing to poor corporate governance and severe governmental conflicts.

Abiola and Olausi (2014) observed that companies with poor governance desire to unmonitored cash to bank lending to avoid inspection from the market. Azmat (2014) evaluate and observed cash holdings in public and private enterprises. This result showed that after controlling significant common factors, the trend of private enterprises is to hold low cash than public enterprises.

Hypothesis

H1: Corruption has significance influence on firm's performance.
H2: Cash holding has significance influence on firm's performance.
H3: Corporate Governance has significant influence on firm's performance.
H4: Corruption has moderating effect in influence of cash holding on firm's performance.
H5: Corruption has moderating effect in influence of corporate governance on firm's performance.

Research Methodology

The study is quantitative and role of corruption in valuation of firm's performance is checked numerically. The Secondary data of firm-based variables have been collected from website of SBP and annual reports of firms. However, the data for Corruption control will be taken into account from site of WGI (Control of Corruption). The data for period of ten (11) years has been collected and seventy (70) non-financial firms from different industries have been taken into account. So, the panel data is used to check the numerical status of hypothesis.

The following regression equations were applied.

- Moderating effect of Corruption in relationship of cash holding and Performance

$$FPF_{it} = \beta + \beta_1 Cash_{it} + \beta_2 CP_{it} + \beta_3 Cash_{it} X\ CP_t + \beta_4 Lvg_{it}$$
$$+ \beta_5 Size_{it} + \beta_6 Tang_{it} + \beta_7 Growth_{it} + \beta_7 Crisis_{it}$$
$$+ \varepsilon_{it}$$

- Moderating effect of Corruption in relationship of Corporate Governance and Performance

$$FPF_{it} = \alpha + \alpha_1 Cash_{it} + \alpha_2 CG_{it} + \alpha_3 CG_{it} X\ CP_t + \alpha_4 Lvg_{it}$$
$$+ \alpha_5 Size_{it} + \alpha_6 Tang_{it} + \alpha_7 Growth_{it} + \alpha_7 Crisis_{it}$$
$$+ \mu_{it}$$

Table 1: Description of the variables

S. No	Variables	Description
1	FPF	Performance (ROA and ROE)
2	Cash	Cash Holding (Cash and cash equivalent/Total assets)
3	CP	Corruption (Index from WGI)
4	CG	Corporate Governance (Board size)
5	Size	Natural log (Total size)
6	Tang	Tangibility (Fixed assets/Total assets)
7	Leverage	Debt to equity ratio

After collecting the data, it has been arranged accordingly. The arranged data is punched in Software (E-views) for further analysis and the following techniques has been applied.

In this statistic, the correlation analysis and regression analysis (Pooled Regression) is carried out. Before application of regression analysis, the stationary of the data has been verified by using Unit root test (ADF). Furthermore, all other assumptions (Multi-co-linearity, Auto-correlation and Heteroskedasticity) have also been fulfilled. The pooled Regression has been applied to determine the empirical results of the study.

Results and Discussion

Table 2: Descriptive Statistics

	CASH	CP	LVG	ROA	ROE	SIZE	TANG
Mean	0.05	28.00	2.10	0.11	0.38	17.16	0.55
Median	0.02	28.00	0.43	0.08	0.21	17.18	0.58
Maximum	0.58	32.00	290.82	0.79	29.80	20.22	4.00
Minimum	0.00	23.00	0.00	-0.33	-5.09	12.73	0.00
Std. Dev.	0.08	3.07	12.65	0.12	1.32	1.21	0.27
Skewness	2.85	0.12	19.00	1.82	16.37	-0.08	3.28
Kurtosis	13.09	1.68	408.99	9.19	358.74	3.15	40.60

The Table 2 is showing the results for descriptive statistics, in which the average value, minimum and maximum values, variation in data and the skewness of the data has been elucidated in detail.

Correlation Analysis

Table 3: Correlation Analysis

	CASH	CP	LVG	ROA	ROE	SIZE	TANG
CASH	1						
CP	-0.05	1					
LVG	-0.02	-0.05	1				
ROA	0.12	0.15	-0.08	1			

ROE	0.05	0.01	0.72	0.27	1	
SIZE	-0.17	0.19	0.03	-0.09	-0.08	1
TANG	-0.23	-0.03	-0.08	-0.06	-0.04	-0.19	1

The table 3 shows the correlation between variables of the study. The results indicate that ther is no high correlation between variables which means there is no serious problem of multi-co-linearity and can be used for further analysis.

Regression Analysis

Table 4: Regression analysis

	Dependent Variable: ROA				Dependent Variable: ROE			
Variable	Coefficient	S.E	t-Statistic	Prob.	Coefficient	S.E	t-Statistic	Prob.
C	0.37	0.05	7.80	0.00	0.40	0.10	4.02	0.00
CASH	0.60	0.18	3.26	0.00	2.86	0.84	3.39	0.00
CP	0.01	0.00	5.41	0.00	0.01	0.00	5.44	0.00
CPCASH	-0.02	0.01	-2.61	0.01	-0.08	0.03	-2.66	0.01
LVG	0.00	0.00	-1.91	0.06	0.08	0.00	19.97	0.00
SIZE	-0.02	0.00	-9.97	0.00	-0.02	0.01	-4.83	0.00
TANG	-0.06	0.01	-5.69	0.00	-0.25	0.03	-9.65	0.00
R^2	0.27		F-statistic	42.76	R^2	0.49	F-statistic	113.20

					Prob(F- statist ic)	0.00
0.26						
	Prob (F- statistic)	0.0 0		0.4 8		
Adj R^2			Adj R^2			

The table 4 is showing the results of regression analysis, while firm performance is measured by ROA and ROE. The values of R-square and Adj R-square are 0.27 and 0.49 respectively. The value of F-statistic is 42.76 with Probability less than 0.05, which is showing that ROA model is significant and F-stat 113.20 with probability 0.00 is also showing significant model of ROE.

The above table results are also showing that all independent variable and control variables have significant impact on ROA except LVG (Leverage) p>0.05, however the results of independent and control variables are showing significant impact on ROE. The co-efficient of corruption is also positive with p-value less than 0.05, which means corruption and ROA and ROE are directly related. As with the passage of time corruption index in Pakistan scenario has increasing trend and on other hand profitability ratios of companies are also increasing with the passage of time.

Conclusion
These results are indicating that the effect of cash holding on firm performance (ROA) is positive and significant. As with the passage of time corruption index in Pakistan scenario has increasing trend and on other hand profitability ratios of companies are also increasing with the passage of time. These results are showing that corruption has moderating effect in relationship of cash holding with firm performance (ROA). However, because of corruption the relationship of cash holding with firm performance (ROA) is weaker. So, in case of increase in corruption the holding of more cash will have negative effect on firm performance (ROA). The control variables firm size, leverage and tangibility are also showing significant impact on firm performance.

In this study leverage, firm size and tangibility have been taken into account as control variables. The results are showing that leverage has positive and significant impact on firm performance (ROE). The results follow pecking order theory, which demonstrate that company follows a specific order while constructing its capital structure. First

of all, company make financing from internal sources i.e. retained earnings, which means when profitability is decreased then retained earnings are decreased due to which equity portion decreased so firm performance (ROE) is decreased. The results are showing that if portion of fixed assets are increased then profitability (ROE) is decreased, it is as due to increase of fixed assets are used efficiently, which increase the retained earning so return on equity is decreased.

In future the same study may be carried out by increasing sample size and data may also be taken from other countries. The results in scenario of different countries may be compared. The results obtained by applying statistical model on different industries may also be compared. Other explanatory variables may also be included in the model in future study. Moreover, other dimensions of the corporate governance may also be taken into account.

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