Corporate Governance and Earnings Manipulation: Empirical Analysis of Non-Financial Listed Firm of Pakistan

Muhammad Ilyas[*], Ihtisham Khan[†], Muhammad Nisar Khan[‡]and Muhammad Tahir Khan[§]

Abstract

After the failure of largest businesses around the globe, the research reveals that due to weak corporate governance (CG) system or the implementations of governance rules management indulge in the manipulation practices of their earnings information. Therefore, to detect the earnings manipulation (EM) practices of management developed and tested a number of models. In this context in current study investigated that can the implementations of CG practices of Pakistan control the practices of management to avoid the EM. For this purpose, a sample of 144 non-financial listed firms of Pakistan stock exchange is used during 2007-2016. Other control variables are used to empirically demonstrate the clear picture of impact of CG on EM. The results reveal that strong CG system controls management activities to manipulate earnings information. Hence, implementation of CG system is most important for the efficient utilization of resources to reduce the level of firms' failure.

Keywords: Earnings Management, discretionary accruals, Corporate Governance, Corporate Governance Index.

Introduction

A number of businesses are collapsed around the globe such as Health International Holdings, Parmalat, Global Crossing Limited and Enron (Teoh, Yang, & Zhang, 2008). Such scandals reduce the confidence of investors on the financial reporting quality of firms (Gul & Tsui, 2001). Further, reported that management involves in masking the true financial performance of firms through earnings manipulation. In addition, they reported that management also tends to hide their private benefits

[*] Dr. Muhammad Ilyas, Lecturer, IBL, Abdul Wali Khan University Mardan. Email: milyas_85@awkum.edu.pk

[†] Dr. Ihtisham Khan, Assistant professor, IBL, Abdul Wali Khan University Mardan.

[‡] Muhammad Nisar Khan, Lecturer, management sciences, Bacha Khan University Charsadda

[§] Muhammad Tahir Khan, Lecturer, IBL, Abdul Wali Khan University Mardan

through the activities of EM. Therefore, after these scandals researchers conclude that financial information disclosures to stakeholders are necessary to be reliable as well as accurate (Leuz, Nanda, & Wysocki, 2003). The previous literature demonstrates that practices of EM expropriate the investors' funds and ultimately these practices encourage an imbalance in financial system of capital markets. Finally, such activities resulted in corporate collapses/failures (Habbash, 2010). Moreover, Khan (2016) finds that these collapses shook the confidence of investors on the information of capital markets. The literature reveals that these collapses affected developed as well developing economies.
Moreover, Ohnesorge (2007) demonstrates that during the credit crunch phase global financial crisis (GFC) affected the developed as well as developing economies. Further, reported that a major reason for GFC were two fold; weak governance and reporting of financial information systems, and the nondisclosure of information (Caramssi, Gros, & Micossi, 2009). Furthermore, Johnson et al. (2000) demonstrate that behavior of managers about disclosures of information increase the information asymmetry (IA) which in turn, shatter the investors' confidence level. However, Healey and Palepu (2003) report that the strong system of governance improve the disclosures and on the other hand ensure efficient utilization of resources. Similarly, La Porta, Lopez-de-Silanes, Shleifer and Vishny (1998) conclude that countries having strong governance mechanisms, they tend to have developed capital markets, the dispersed ownership and strong disclosure environment. In the similar vein, Hail and Luez (2006) find that in countries where capital markets are developed they follows standards and regulations, therefore firms disclose their firm fundamentals information and ultimately the value relevance increases and EM are reduced.

For this purpose, to restore the investors' confidence, a number of countries initiated or revised changes in the regulatory environment. Such as United State passed the Sarbanes-Oxley Act 2002, similarly the Malaysian government revised governance system and Central Bank's prudential regulations, United Kingdom also initiated or revised different committees' reports. In this regard, Pakistan also initiated code of CG in 2002. Therefore, to strengthen the countries governance system World Bank and Organization for Economic Co-operation and Development helped the legislative activities and strengthening the regulatory environment in developing world (Organization for Economic Co-operation and Development, 1999). Similarly, Bartov, Goldberg and Kim (2001) conclude that a strong governance system helps in improvement of financial information quality, confidence of stakeholders are restored and also improve the disclosure of firm fundamentals information. The

strong investors protection system and detail disclosure of information help management to reduce the level of IA among insiders and outsiders. Alternatively, this reduces the EM of firms around the globe. Finally, demonstrates that EM practices are the main reason of businesses failure in developed and developing economies. Moreover, reported that high level of transparency in information reporting process reduces the level of EM (Hunton, Libby, & Mazza, 2006). Similarly, reported that good governance system regulating the quality financial reporting process. The governance system plays an important role to in the solution of conflicts of interests as well as to allocate the available resources in an efficient way (Shah, Butt, & Hassan, 2009). In addition, in developing countries find higher expropriation of minority investors' funds than the developed countries (La Porta et al., 1997). Therefore, in this study investigates corporate governance and earnings manipulation practices in the context of Pakistan as a developing economy to reveals the important role of governance system at firm level.

Literature Review

Theoretical Review of the Study

Theory plays an important role in research; theoretical concepts are more perfectly as well efficiently explain the association between or among variables. Neuman (2004) reported that association of concepts is tested through research. Therefore, in this study the theoretical and empirical literature are reported. Moreover, in this study reported four theories of CG such as Agency, stakeholder and stewardship theories. Agency theory is the basic theory of CG research (Yusoff & Alhaji, 2012). This theory shows owners and management are separate (Klein, 2002). Agency theory postulates that managers act for their own personal interests instead of shareholders interests. Therefore, the separation of management and owners welcome to the agency theory in business world (Habbash, 2010). Another theory of CG is the stakeholder theory. Schilling (2000) argues that the stakeholder theory is based on the interests of stakeholders (Freeman, Wicks, & Parmar, 2004). Consequently, management can easily manipulate firm financial information and on the other hand, the theory acts to control management discretionary power of information manipulation. Moreover, the third important theory of CG is stewardship theory. Managers act as stewards because they interested in the interests of shareholders (Donaldson & Davis, 1991). This theory develops strong coordination within the organization through CG. Ultimately, management acts as a steward for the maximization of shareholders' wealth (Habbash, 2010).

Empirical Literature

The issue of EM is defined in literature from different aspects but the most common definition is of Healy and Wahlan (1999) "M*anagers use judgment in financial reporting and in structuring transactions to alter financial reports to either mislead some stakeholders about the underlying economic performance of the company, or to influence contractual outcomes that depend on reported accounting numbers" (p.368).*

To control such behaviors of management, regulators and researches are concentrated specifically on the CG system and its implementation. Moreover, various regulatory agencies, authorities and researchers explain the CG system from different angles but the most common definition is of La Porta, Lopez-de-Silanes, Shleifer and Vishny (2000): *"Corporate governance is, to a large extent, a set of mechanisms through which outside investors protect themselves against expropriation by the insiders" (p.2).*

In recent years' academicians, regulators and market participants are attracted by the issues of CG and EM (Uadiale, 2012). A number of firms around the globe are involved in the accounting scandals and such actions lead these firms towards failure. Such failures either resulted from accounting manipulation or were due to inefficient and ineffective mechanisms of CG because the existing mechanisms of CG failed to control such opportunistic behaviors of management. Therefore, issues are raised by investors about the effectiveness of monitoring devices to protect their interests (Khalil, 2010). Management achieves their desired results in the form of increasing their compensation and bonuses (Alghamdi, 2010; Basiruddin, 2011). Hence, reveals that they indulge in the manipulation of earnings information. Awareness is increasing about the importance of CG practices that play its role to prevent the activities of EM (Kelimeler & Sınıflandırmasi, 2016). However, reported that the weak CG mechanisms enhance management towards the manipulation of firms' earnings information (Jiraporn et al., 2008; Rezaei & Roshani, 2012). In addition, Ikechukwu (2013) examines the relationship of EM and CG practices; they used internal and external mechanism of CG. The results demonstrate mix findings that due internal mechanisms such as high level of ownership concentration and smaller board size managers manage earnings more explicitly. However, if implemented, external mechanisms of CG then EM activities are reduced. Similarly, others study the effect of CG on practices of EM and they reported that CG is negatively associated with EM practices (Iraya et al., 2015). Additionally, consistency and reliability of financial statements become effective, thus the trust of shareholders increased on CG mechanisms and

their implementations, because these mechanisms play an important role in controlling of EM (Turegun & Kaya, 2016). Similarly, Lakhal (2015) examines 170 French firms and finds that CG practices improve the disclosure of financial information and this leads to a reduction in EM. In the similar vein, Patrick et al. (2015) examined CG and EM in Nigerian listed firms during 2011-2014. They find that CG significantly affects EM activities. Moreover, Habbash (2010) demonstrates that CG is a monitoring mechanism to control the activities of EM. Shen and Chih (2007) study the Asian economies to empirically examine the effect of CG on EM. The results show that firms which follow good CG system in their respective country are less engaged in EM than weak CG countries. In the similar vein, Leuz et al. (2003) examine the EM systematic differences in a sample of 31 countries. The results find that insiders try to protect their private benefits through EM. Therefore, they do not show a true picture of firm performance to outsiders.

However, others report that CG either affects EM or not, such as Azzoz and Khamees (2015) investigate the impact of CG on EM and earnings quality in a sample of 73 listed firms during 2007-2012. The analyses of this study reveal mix results. In addition, Waweru and Riro (2013) investigated CG attributes and EM in a sample of 37 listed firms. The analyses reveal that board composition and ownership structure significantly affect EM. However, Keshteli and Fathi (2015) investigate CG mechanisms and EM in a sample of 10 banks during 2009-2013. The results show that CG insignificantly affects EM.

In addition, in the context of Pakistan as a developing country the investigation of CG and EM are largely missing. However, Kamran and Shah (2014) find that EM practices are increased CG code implementation in Pakistan; hence such results are controversial in the context of Pakistan. Similarly, Shah et al. (2009) conclude the positive relationship of CG and EM. They argue that this association is due to the transitional stage of the CG implementations in Pakistan. Moreover, Latif and Abdullah (2015) reported a negative association of independent audit committee and EM, and find positive association of CEO duality and institutional shareholding with EM. Others reported the inclusive and mix results (Iqbal, Zhang, & Jebran, 2015; Younis, Hashmi, Khalid, & Nazir, 2016). Recently instead of controversial and mix results in the context of Pakistan, Ilyas, Ahmad, Khan and Khan (2018) demonstrate that CG system significantly and negatively affect the EM practices of listed firms on Pakistan stock exchange. They used CGI instead of individual factors of CG and also used discretionary revenue model instead of accruals based model of the EM.

Theoretical Framework of the Study

Independent variable Dependent Variable

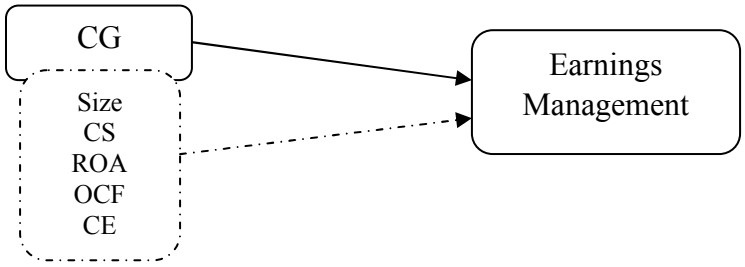

Figure 1: Theoretical Framework

Control Variables

On the basis of above discussion of CG theories and empirical literature, the above theoretical framework is developed for the current study. The independent variable CG and control variables theoretically and empirically affect the EM practices. All theories focus to avoid the management behavior of earnings manipulation such as agency theory focuses agent and principal relationship, stakeholder theory focuses on the interests of all stakeholders and the theory of stewardship direct management to acts as steward. Therefore, conclude if management implement the governance practices then the EM practices are either minimizing or eliminated.

Research Methodology

In this study used the quantitative and deductive approach. Moreover, previous studies reported that quantitative methods are more accurate to investigate a large sample size as well as to test the relevant theories (Pornupatham, 2006).

In this study examined CG and EM in a 144 sample listed firms of PSX during 2007-16. Annual reports of a large number of listed companies are not available. Hence, the sample is restricted to only 144 non-financial. However, the sample used in this study is large in the context of Pakistan as compared to previous studies in the context of Pakistan. The data used are panel and secondary, and downloaded from websites of the companies and State Bank of Pakistan.

Procedures of Data Analysis

The current study used univariate, bivariate and multivariate analyses.

Descriptive Statistics (Univariate Analysis)

Descriptive statistics demonstrate the characteristics of series (Hair, Black, Babin & Anderson, 2010).

Bivariate Analysis (Correlational Analysis)

It presents relationship between variables; relationship between variables is either theoretically or empirically justified (Xiaoqi, 2013).

Panel Data Analysis Approaches (Multivariate Analysis)

Data of the study is panel in nature, therefore its specified analyses techniques are used. Asteriou and Hall (2007) report that panel data techniques are the most efficient estimation and it has advantages as compared to other types of data estimators. Other advantages of panel data are large sample size. They reported three different approaches of panel data estimations. They reported the common constant method is: *"there are no differences among the data metrics of the cross-sectional dimension (N). In other words, the model estimates a common constant for all cross-sections" (p.345).*

Greene (2007) reports for analysis of panel data used fixed and random effect techniques. Asteriou and Hall (2007) assume that fixed effect model has constant group specific. Finally, report to select pooled OLS or fixed effect model use the Chow test (1960). The null hypothesis of F-test is that all constants are the same. If the p-value of the F-test is significant then pooled OLS is invalid against fixed effect model (Gujarati, 2003). Moreover, Greene (2007) reports that random effect assumes that individual constant are group specific disturbance term. Asteriou and Hall (2007) find for each cross section constant are considered as random parameters. However, certain diagnostic tests are used to select among pooled, random and fixed effect models. They reported that to make selection between fixed and random effect use Hausman (1978) test. If the result shows that p-value is greater than standard value of 0.05 then random effect is the appropriate model. However, Breusch and Pagan Langrang Multiplier test is used to select appropriate model between pooled and random effect models.

Model of Study

The model that investigates CG, EM and control variables of this study is as follow:

$$EM_{it} = \beta_0 + \beta_1 CG_{it} + \beta_2 Size_{it} + \beta_3 CS_{it} + \beta_4 CFO_{it} + \beta_5 ROA_{it} + \beta_6 CE_{it} + \varepsilon_{it}$$

Where: EM_{it} is Earnings Management, CG_{it} is corporate governance practices implementation score, $Size_{it}$ is Size, CS_{it} is the capital structure, ROA_{it} is Return on Assets, CFO_{it} is the ratio of operating cash flow to total assets, CE_{it} is capital expenditure and ε_{it} is error term of firm i at time t.

Earnings Management Models

The previous literature reports that EM measuring techniques are improving, though an accurate measurement of EM has not been developed that are generally accepted. Healy and Wahlen (1999) present that *"despite the popular wisdom that earnings management exists, it has been remarkably difficult for researchers to convincingly document it" (p.370).* moreover, methodologies and models are evolving to detect the management engagements in EM activities. Hence, this section briefly discusses several accruals based models that are adopted to measure EM such as Jones model (Jones, 1991), modified Jones model (Dechow, Sloan, & Sweeney, 1995) and performance matched model (Kothari, Leone, & Wasley, 2005). EM is used as the dependent variable in this study.

Total accruals are divided into discretionary and non-discretionary accruals (McNichols, 2000). The differences of reported earnings and cash flow from operation are the proxy of total accrual (Habbash, 2010; Roychowdhury, 2006). Moreover, report that total accruals are scaled by total assets (Roychowdhury, 2006). There are two approaches are used for total accruals measurement such as balance sheet and cash flow approaches.

The cash flow approach is calculated as follow:

$$TA_t = EBEOI_t - CFO_t$$

Where: TA_t is total accruals at time t. $EBEOI_{it}$ is the earnings before extra-ordinary items of fir i at time t. and CFO_{it} is the cash flow from operation of firm i at time t.

Collins and Hribar (2002) demonstrated that cash flow approach more efficiently presents the total accruals measurement as compared to balance sheet approach. Moreover, reported that total accruals are the combination of discretionary and non-discretionary accruals. Discretionary accruals are the difference between total accruals and non-discretionary accruals estimated in the particular period (Khalil, 2010). Similarly, others reveal that discretionary accruals represent EM (Mohanram, 2003; Pornupatham, 2006; Xiaoqi, 2013).

Models of Earnings Management Measurements

Barghathi (2014) shows to understand EM practices required to know how to detect it. Moreover, Khalil (2010) find that for the appropriate measurement of EM different methodologies are evolved such as accrual and non-accrual based models. Further, Almasarawah (2015) explains the use of various models of EM in the last three decades. In this study used performance matched model, Beslic, Beslic, Jaksic and Andric (2015) investigate the detecting power of the existing EM models and the results reveal that Jones, modified Jones and Kasznik Models do not have sufficient explanatory power. Therefore, the further modification is required in the existing EM models. To overcome the misspecification problem of previous models, the performance matched discretionary model is developed (Kothari et al., 2005). The problems of misspecification and biases produce biased results about the EM detection. They conclude that in discretionary accruals models, unusual performance factors are ignored. They demonstrate that they develop the powerful and well-specified measure of discretionary accruals. Further, they argue that matching is made on the basis of industry and ROA. The previous models require controlling for the company prior performance. For this purpose, they developed a model which use lag value of ROA to solve the problem of misspecification and to avoid the problem of heteroscedasticity

Performance Matched Discretionary Accruals model is explained as follows.

$$TA_{it} = \beta_o(1/Alag) + \beta_1(\Delta R_{it}-\Delta AR_{it})/Alag + \beta_2(PPE_{it}/Alag) + \beta_3(ROAlag) +\varepsilon_{it}$$

Where: TA_{it} is total accruals of firm i at time t. Alag is the lagged value of total assets. ΔR_{it} is the change in Revenue of firm i at time t. ΔAR_{it} is the change in Account Receivable of firm i at time t. PPE_{it} is the property, plant and equipment of firm i at time t. ROAlag is the lagged value of return on assets. ε_{it} is error term of firm i at time t.

Corporate Governance

Efficient CG system is necessary to control the management discretionary power because others report that due to inefficient CG system the management of a firm indulges in the practices of EM. In this study used CGI as proxy of CG instead of its individual factors. In previous studies recommended to use CGI instead of individual factors Kamran and Shah (2014) and Lakhal (2015). Javid and Iqbal (2010) developed a CGI and they used it to examine CG effect on the firm performance. The index used is the combination of three sub-indices, moreover total 22 factors are covered in this CGI. Moreover, reported that Ilyas and Jan (2018) and Ilyas et al. (2018) used the same index in their particular study in the context of Pakistan.

Control Variables of the Study

Used a number of control variables in this study which affect the practices of EM. Firm size affects the earnings manipulation practices of management. It is measurement through the logarithm of total assets of firm (Xiaoqi, 2013). Lobo and Zhou (2006) find that due to complex structure of large firms' management can easily manipulate earnings information. Moreover, leverage represents a firm capital structure (Habbash, 2010). Leverage is calculated through proxy of total debts to assets (Barghathi, 2014; Xiaoqi, 2013). Another important control variable of the study is firm performance. ROA is used as a proxy of firm performance (Almasarwah, 2015; Barghathi, 2014). Moreover, reported that firms' performances are different in different industries. Hence, used the cash flows from operation divided by total assets as a control variable. Similarly, the ratio of total capital expenditure to total assets is used as proxy of capital expenditure of the firm as control variable. All these control variables empirically and theoretically affect the EM practices of management.

Results and Discussion

Table 1: Descriptive Statistics of the Study

Variables	Mean	Median	St. Dev	Min	Max	Skewness	Kurtosis
EM	-0.01	-0.01	0.84	-1.79	1.89	0.03	2.97
CG	78.11	78.57	7.81	57.14	100	0.00	2.81
LEV	0.55	0.55	0.22	0.00	0.99	0.07	2.45
Size	6.84	6.78	0.62	5.33	8.39	0.25	2.76
CE	0.70	0.71	0.33	0.00	0.93	0.16	2.79
ROA	0.06	0.05	0.11	-0.53	0.29	-0.23	4.08
CFO	0.08	0.06	0.13	-0.19	0.39	0.47	3.05

Table 1 shows the descriptive statistics of dependent, independent and control variables. Descriptive statistics are used to investigate the nature of data (Habbash, 2010; Xiaoqi, 2013). EM is calculated through performance matched model. The minimum value of it as -1.799 and maximum is 1.893. Further, demonstrates that mean of it is -0.018 and the median value is -0.012. Standard deviation is low, so it is not much varying from mean. Thus, it shows that Pakistani listed firms follow the standard procedures of accounting principles and management cannot highly engage in manipulation practices. Moreover, CG has minimum value 57.143 and maximum is 100. The maximum value shows that the application of CG is increased after CG code implementations. The mean and median values are almost the same; hence, on average the implementation these mechanisms are same. Moreover, leverage shows that the sample listed firms depend on debt financing. Size shows that sample firms are not too different in size. Similarly, capital expenditure

shows that sample firms make expansion in their businesses and it conveys a positive message to the capital market. Moreover, ROA reveals that on average sample firms positively perform. Moreover, CFO shows that on average the overall cash generating ability of all sample firms are high. Therefore, it is a positive sign of the Pakistan capital market.

Correlations Results

Table 2: *Correlation Results*

	EM	CG	LEV	ROA	Size	CFO	CE
EM	1.000						
CG	-0.049	1.000					
LEV	0.065	0.024	1.000				
ROA	-0.071	0.081	-0.482	1.000			
Size	0.218	0.046	0.036	0.048	1.000		
CFO	-0.033	0.033	-0.239	0.534	0.030	1.000	
CE	-0.174	0.037	0.265	0.213	0.216	0.036	1.000

Table 2 presents the correlation results of the variables used in this study. EM is negatively associated with CG, firm performance, CFO and CE. The negative association of EM and CG is same like (e.g., Tanjung et al., 2015; Turegun & Kaya, 2016). Moreover, the negative association of CFO and EM shows that high level of CFO decreases the manipulation practices. In addition, the negative association between firm CE and EM shows that firms do not need to manipulate earnings information. However, EM positively associated with LEV and size of the firm and this reveals that the high leveraged firms are highly engage in EM practices. Finally, reveals that control variables are either positively or negatively related with each other.

Results of Panel Data Approaches

The diagnostic tests suggest random effect is suitable model for analysis. EM is dependent variable, CG is used as an independent variable and control variables such as capital structure, firm performance, size of the firm, cash flows from operations and capital expenditure are used to control the effect of these characteristics of firms. The diagnostic tests results are reported in table 3 and the overall results recommended random effect model among these models.

Table 3: Results of Model Selection

Panels/ Models	Value	P-value
F-Test Results		
F-value	14.20	0.000**
Hausman Test		
chi2(6) = (b-B)'[(V_b-V_B)^(-1)](b-B)	6.39	0.380
Breusch and Pagan Test		
chibar2(01)	24.45	0.000**

*Note: Table 3 reports the model selection criteria to choose the appropriate model, ** p<0.01 and ***p<0.1.*

In table 3 reports the diagnostics tests result of F, Hausman and Breusch and Pagan tests. The overall findings of these tests show that the appropriate model of analysis is random effect as compared to pooled and fixed models.

Table 4: Regression Results of the Study

Variables	Coefficient	z-statistic	p-value
Constant	-1.032	-2.65	0.008
CGI	-0.006	-2.09	0.036*
LEV	0.261	1.99	0.046*
CE	-0.450	-5.72	0.000**
ROA	-0.008	-3.44	0.001**
CFO	-0.743	-4.03	0.000**
Size	0.249	5.83	0.000**
Adjusted R-Square	9.16%		
F-Statistic:	16.75 (p-value 0.000***)		

Dependent Variable: Earnings Management
*Note: Table 4 explains the results of random effect model. *p < 0.05 and ** p < 0.01 present that variables are significant at 5% and 1% respectively. However, *** of F-statistic presents that the F-statistic recommend that model is significant at 1%, which is valid model of analysis.*

The results conclude that CG negatively affects the EM practices of sample firms listed on PSX. Hence, the findings of the current study support the view of previous studies (e.g., Ikechukwu, 2013; Kelimeler & Sınıflandırmasi, 2016; Mansor et al., 2013) that the efficient CG mechanisms curtail the manipulated practices of management of listed firms of PSX. The results show a negative and statistically significant association of CG and EM. Thus, the results conclude that CG acts as an efficient monitoring tool to reduce the manipulation of accounting information. Thus, the confidence of investors not only becomes high but it also reduces conflict of interest between management and stakeholders.

The results imply that the management act for the benefits of shareholders instead of their private benefits. The findings are further supported by agency theory. CG mechanisms help to ensure the reduction in agency problem as well as agency cost (Chen et al*.,* 2009). Moreover, CG is used as a controlling tool to keep a balance between the management and shareholders of the firm. For example, Habbash (2010) and Paiva and Lourenco (2013) argue that BoD, independent directors and OC are CG tools. These tools are used by shareholders and stakeholders to keep the management within legal boundaries of their job. Managers due to regarding their jobs and knowing that the CG system is strong then they avoid the manipulation of earnings information. Furthermore, the management also tries to reduce EM activities to avoid costly litigation (Bhattacharya et al., 2003). Moreover, Ajinkya et al. (2005) report that CG mechanisms reduce agency problems. Hence, at this level reveals that the management manipulation practices of earnings of listed firms are declined. Finally, added that the association of CG and EM is supported by stewardship theory, Albrecht et al. (2004) demonstrate that stewardship theory is based on a sociological and psychological approach to align the interest of corporate executives, owner, and management. Furthermore, Habbash (2010) also support the stewardship theory because the management is not opportunistic but managers and directors' acting as a steward. In the similar vein, the theory of stakeholder of CG support the results of the current model likewise, Abrams (1951) reports that corporates focus on balancing the interest of all these stakeholders. On the basis of these findings reveal that to meet the expectations of all stakeholders' management cannot deceive them by manipulation practices. Moreover, Sanda et al. (2005) report that the stakeholder theory concentrates on a number of issues such as information flow from top to lower management, interpersonal relations and working environment. Hence, the managers who adopted the principles of this theory then the earnings manipulation practices should be reduced.

The results are consistent with the previous studies findings such as (e.g., Iraya et al., 2015; Tanjung et al., 2015). Moreover, Abbad, Hijazi and Al-Rahahleh (2016) report that quality of CG mechanisms is increasing over time and create more constraint for management to indulge in the EM. Moreover, Paiva and Lourenco (2013) and Ishak et al. (2011) conclude that family-owned businesses are less engaged in the activities of EM. Therefore, conclude that in Pakistan majority businesses are owned by large families and they cannot indulge in practices of EM due to secure their family reputation.

Leverage, CE, firm performance, cash flow from operations and size of the firms are used as control variables. The results reveal that leverage positively and significantly affect the activities of EM. To survive the company needs the effective management of resources during an extremely uncertain environment. Since leverage is an external source of finance, therefore they manipulate earnings to get this resource at the lowest possible cost. Creditors are also interested in their return and are more interested in true and reliable accounting information of firms. Thus, a manager is trying to ensure the external finance and indulge in EM. Similarly, other studies demonstrate that management for this purpose manipulates the earnings (e.g., Bassiouny et al., 2016). In addition, others find that highly leveraged firms engage more in the activities of EM because they try to avoid the violation of covenants (e.g., Dichev & Skinner, 2002). Further, reported that CE is negatively and significantly associated with EM. An increase in the CE indicates that firms are growing and make expansion in their operations. Thus, managers have no incentives to manipulate the earnings information. Moreover, firm performance in term of ROA is negatively associated with EM and this association is statistically significant. Firm performance plays a critical role in shareholders' wealth. High performance means that firm generates sufficient funds from its operations and there is no need to manipulate firm's accounting information. The findings of firm performance and EM of the study are supported by the results of the extent literature (Freeman et al., 2004; Klein, 2002). ROA acts as an indicator of efficient utilization of firms' assets by management. Therefore, conclude that negative association between EM and firm ROA support the view that management less likely manipulate their earnings if firms generate a high return on their assets. Further, report that CFO is negatively and significantly related to EM practices. High level of CFO represents that the firm performs well. Therefore, management is less likely to involve in the practices of EM. In the similar vein, other studies also report that high cash flow from operating activities and EM are significantly associated (Graham et al., 2005). Additionally, size positively and significantly affects EM practices. It means that large firms engage in their accounting information manipulation because detecting EM in their accounting information is expected to be difficult (Bartov, 1993; Lobo & Zhou, 2006). Finally, reported that the adjusted R-square of is 9.16% and the F-statistics value shows that the overall model is significant (p-value < 0.05).

Conclusion

In this study investigated corporate governance and earnings manipulation of a sample of 144 listed firms on Pakistan stock exchange. Corporate governance is measured through the governance index adopted from Javid and Iqbal (2010) and EM is calculated through performance matched model (Kothari et al., 2005). Moreover, a number of control variables are used in the model. For analysis used the panel data techniques and on the basis of diagnostic tests decided to use random effect model. The results reveal that the corporate governance system of Pakistan significantly and negatively affects the earnings manipulation practices of listed firms. Therefore, conclude that the governance system is efficient to curtail the manipulation process. Moreover, reported that other control variables significantly affect the EM practices of management. The overall findings are consistent with previous literature that the strong governance system controls the EM and failure of businesses.

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