INVESTIGATING THE IMPACT OF CORPORATE GOVERNANCE ON EARNING MANAGEMENT IN THE PRESENCE OF FIRM SIZE; EVIDENCE FROM PAKISTAN

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ABSTRACT

This study investigates the relationship between earning management and corporate governance in presence of firm size having sample size of 50 listed companies of manufacturing sector in stock market with time horizon of 2009 to 2013. Corporate governance has been enumerated by the board size, audit committee independence and ownership concentration taking multi-dimensional aspect of it. Here cash flow statement approach using the Modified Jones Model has been exercised to measure the discretionary accruals. Ordinary Least Square (OLS) expressed the negative relationship of quality of corporate governance with earning management and positive relationship with firm size. Relationship of firm size and earning management is negative. So small sized firms are more involved in earning management and reason for this relationship is to absorb fluctuations maintaining the financial position. Corporate stake holders should focus on small sized firms to regulate proper implication of corporate codes avoiding cooking the books.

Keywords: *Corporate Governance, Earning Management, Firm Size.*

Introduction

It is imperious to have a solid understanding of earnings before plunging into comprehensive discussion of earnings management. In simple words, earnings are the life blood of a company and everyone wants to boost its blood. The management of the different companies uses the earning management to boost its blood. The earning management can be controlled and monitored through the effective corporate governance implementation. So, the corporate governance has the abundant impact on the earning management. Earning management and corporate governance is gaining importance all over the world. Managers may violate the timing and matching principles that results not only misstatements of earning but also creates the agency problems on with the passage of time. The wealth of the companies grossly suffers due to this type of manipulation and robes the innocent stakeholders. Total assets have direct relation with corporate governance as all resources are generated by sources. Debts and equity are important sources. Higher the debt to equity ratio shows financial weakness and risk of the company. It also shows percentage of capital employed that is financed by debt and long-term liabilities. Mangers through the earning management can affect these ratios and dress the windows of their businesses to attract the investors. Share prices are in fact the present value of future cash flows; future cash flows are the dividends which of course are dependent on the earnings of the company. Share prices of the companies with higher projected earnings are higher as compared to the share prices of the companies with lower projected earnings. The concept of earnings management is very important because it plays very vital role in determining the stock's prices. The cost of engaging in earnings management will be higher for large-sized firms than small-sized firms. Therefore, their concern about reputations may prevent large-sized firms from manipulating earnings. Finally, large-sized firms may be less likely to manage earnings relative to smaller counterparts because they are followed by more financial analysts (Kim, Liu & Rhee, 2003). In contrast, large sized firms are more likely to manage earnings than small-sized firms. First, as Barton and Simko (2002) indicate, large sized firms face more pressures to meet or beat the analysts' expectations. LA & DJ (2000)compile empirical evidence that large-sized firms do not report accurate earnings after studying their earnings growth for at least 14 quarters. Rangan (1998) also notes that the firms in his study manipulating current accruals to overstate earnings in the year before seasoned equity offerings are older and larger. Second, large-sized firms have greater bargaining power with auditors. The larger the firm size, the more bargaining power they have in negotiations with auditors. Mark, John, & Robin, (2002) document that auditors are more likely to waive earnings management attempts by large clients. Third, large-sized firms have more room to maneuver given wide range of accounting treatments available. In all, the incentives and abilities to manage earnings may vary among firms of different sizes. These competing views and evidence raise a question on the relation of earnings management to firm size. Are large and medium-sized firms more likely to manage earnings than small-sized firms after controlling for various firm attributes that may affect earnings management practices? This question must be resolved empirically. In today's business world the size of firms, corporate governance and earnings management have become important. It is assumed that there is strong and critical relationship between size of firms, corporate governance and earnings management. The aim of this research is to quantify the aspects that are used by firms to manipulate their earnings and also the characteristics of such firms in term of their size and corporate governance. In emerging economies like that of developing countries it is observed that there is deviation in trends of earnings. So to help academicians and investors in predicting earnings management policy, this research reveals the effect of corporate governance on earning management. A comprehensive study of the topic led us to investigate what impact does the size (taken as logarithm of total assets) of a firm have on earnings management and how the corporate governance influences earnings management. Moreover, which of these two factors influences the earnings management the most and how the Earning Management is affected by the Corporate Governance?. Most of the research is to quantify the impact of the capital structure on earning management but in this research significance of corporate governance has been measured on earning management in the presence of firm size. The basic objective is to check the impact of the Firm size and Corporate Governance on the earning management.

Literature Review

The first is, size of firm basically relates with internal control system. The larger companies have complex internal Control system than smaller one. Efficient internal control system may help the company to disclose inaccurate information to the public. AS Rahmani & Akbari (2013) analyzed the Impact of capital structure and the firm size on the earning Management. The 90 sample of firms are drawn from the population of Iranian non-financial firms listed on the Tehran Stock Exchange during 2008-2012that has been examined by using multivariate regression analysis using fixed effect model approach. Modified Jones Model with cross sectional approach was employed in his study. They conclude that firm size has positive significant with earning management because large firms usually have strong internal control systems and governance mechanisms. AS AikLeng (December, 2004) analyzes the Impact of Corporate Governance Practices on Firms' Financial Performance. Data from 77 Malaysian listed companies, over a four-year period from 1996to1999. Based on a combination of cross-sectional and time-series data, panel data The Regression Techniques were used and both fixed effect model and random effect model to check the effect of corporate governance on firm performance and it was concluded that increased strength of institutional investor in a firm appeared to exert a positive influence on company earnings. According to Shah, Butt, & Hasan(2009) analyzedthe impact of corporate governance on the earning managementby using a set of listed companies that were analyzed for the year 2006. They used the Modified Jones Model for estimation of the Discrationary accruals so the Ordinay least

Square estimation revealed that there is a positive relationship between the earning management and the Corporate Governance. AS Z. Elias(2002) Studied the Determinants of Earnings Management Ethics among Accountants and The study examines the ethics of this practice using a national sample of 763 accounting practitioners, faculty and students and the ethics of the practice such as perceived role of ethics and social responsibility and personal moral philosophies were explored by using Regression Parameters. Results indicate a positive relationship focus on long-term gains, between social responsibility, idealism, and the ethical perception of earnings management and between focus on short-term ethical perception negative relationship gains, relativism and the of this Practice. As Shah, Butt, & Hasan(2009) studied the relationship between the corporate governance and the earnings mangement. He analized the set of listed companies in the stock market of the Pakistan for the year 2006. The discretionary accruals have been used as a proxy for earnings mangement in this research paper. The Modified cross sectional jones model has been used for determining the Accruals. The Ordinary Least Square (OLS) results quantify the positive relation between the corporate governance and the earnings mangement.

ASW. Bathke, S. Lorek, & Willinger (1989) Studied the Firm-Size and the Predictive Ability of Quarterly Earnings Data. The Quarterly earnings data for a sample of 109 New York Stock Exchange firms were collected. The sample consisted of large, medium and small firms after deletion of non-seasonal and volatile growth and inconsistent strata membership firms. The Regression parameters and the Time series Model were used in this study. A repeated measure multivariate analysis of variance design indicated that predictive ability differed on the basis of size at the .012 level. Tests also indicated that large-and medium-size firms generated one-step-ahead forecasts that were significantly more accurate than smaller firms at the .05 level.

Kim & Liu at el(2003) studied the impact of firm size on the earning management by using the 18 years data from 1983 to 2000. They used the Multivariate Probability Analysis for testing the effect of firm size on the earning management. They concluded that the large-sized firms may be less likely to manage earnings relative to smaller counterparts because they are followed by more financial analysts. As Ibrahim & Abdullah (2004) have studied the impact of corporate governance on the quality of earnings on the banking sector of Nigeria. All the commercial banks which are qouted in the Nigerian stock market are studied in this research paper for analysis of the corporate governance and the quality of earnings. The results reveal that there is insignificant relationship between the corporate governance and the quality of earnings which shows the value of earnings in banking sector. As Islam, Ali, & Ahmad(2011) studied the application of the Modified jones model for detecting the earnings mangement. The sample data has been collected from the Dhaka Stock Exchange (DSE) for the Time Horizon of 1985 to 2005. The results reveal that the Modified cross sectional model is very effective for detecting the earnings managemnet in the context of Bangladesh.

Data and Methodology

The sample consists of 50 listed companies of the KSE 100 index. The time horizon for the sample data is from 2008 to 2012 out of which we exclude the following companies:

- Financial companies and the utilities (because the capital structure and the profits of these companies are different)

Measurement of Quality of Corporate Governance (QCG)

The proxies used in this paper for measuring the quality of corporate governance are Board Structure, Ownership Structure and Audit Committee Independence as these are in line with the Klapper& Love (2002).So, the Quality of Corporate Governance (QCG) has been measured by the use of following equation.

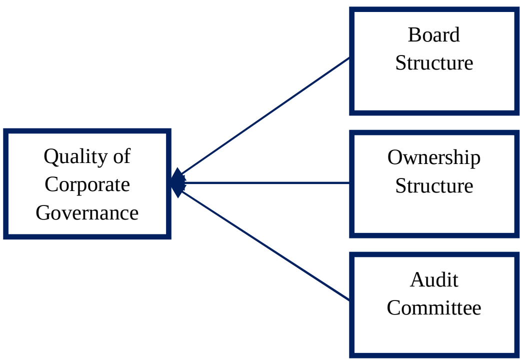
QCG = f (BS, OS, ACI)
BS= Board Structure
OS=Ownership Structure
ACI=Audit Committee Independence

The criteria used for estimating the corporate governance index

In this research paper we used the binary number codes “1” for yes or existence of the specified variable in the organization that adds one point to the corporate governance index. In the other hand “0” is used for no or non-existence. The data for nine variables is collected. Total score for corporate governance index is on the scale 0 to 9. The organization showing the higher score indicates the healthier quality of corporate governance Sawicki(2005). The following table shows the detail of estimation for the different variables:

Variables	Estimation and Prediction
Board Structure	One-third independence of the board, as measured by the number of independent directors divided by total number of directors.
	Chairman and CEO separation.
	Largest director’s shareholding (as measured using direct interest and deemed interest divided by total issued shares) below 5% of issued capital.
Audit Committee	Existence of an Audit Committee.
	Disclosure of frequency of Audit Committee meeting.
	Expertise of Audit Committee.
	Engagement of Big Six auditors.
Ownership Structure	Existence of a Remuneration Committee
	Existence of a Nomination Committee

Schematic Diagram of Theoretical Framework



Measurement of Firm size (FS)

Total assets are taken as the proxy for measuring the firm size as Rahmani & Akbari(2013) has uesd this as a proxy for measuring the firm size.

Measurement of Earning Management (EM)

Modified Jones Model is opted in this paper for calculating the discretionary Accruals which signify the magnitude of the Earning Management. In this paper the Modified Jones cross sectional model is opted for calculating the accruals because in literature most of the studies used and accepted this Model to calculate the accruals as the proxy for the earning management practices (Teoh&et al. 1998: Dechow&et al. 1995: DeFond& C, 1997).
There are two different approaches to calculate the Accruals

- Balance sheet approach
- Cash flow statement approach

Balance sheet approach

According to this approach the accruals can be estimated with the help of the following equation.

$$\mathbf{TA_t = \Delta CA_t - \Delta Cash_t - \Delta CL_t + \Delta DCL_t - DEP_t}$$

Where:
TA_t= total accruals in year t
ΔCA_t= change in current assets in year t
$\Delta Cash_t$= the change in cash and cash equivalents in year t
ΔCL_t= the change in current liabilities in year t
ΔDCL_t= the change in debt included in the current liabilities in year t
DEP_t= depreciation and amortization expense in year t

Cash flow statement approach

According to this approach the accruals can also be estimated with the help of the following equation.

$$\mathbf{TA_t = N.I_t - CFO_t}$$

Where:
TA_t = Total accruals in year t
$N.I_t$= Net income in year t

CFO_t= Cash flow from operating activities in year t

In viewing the literature we found that most of the researchers have opted and preferred the cash flow approach in contrast to the balance sheet approach. Collins & Hriber (1999) discussed that the balance sheet approach for estimation of accruals is lesser useful in respect to the cash flow statement approach. Bartov, Gul, & Tsui (2000) used the balance sheet approach and pointed out that this approach is used because the data of cash flow from oprations were not avaiable for the whole time period of estimation. So, in this paper the cash flow statement approach will be used for the estimation of the total accruals.

Measurement of Discretionary accruals (DA)

Different methods have been opted by the different researchers for calculating the discretionary accruals but in our paper the Modified Cross Sectional Jones Model is opted because it is the latest and modified model for estimating the discretionary accruals.According to Modified Cross Sectional Jones Model [1995] the discretionary accruals are estimated by deducting non-discretionary accruals from total accruals so, these non-discretionary accruals are estimated by using the following equation: -

$$\mathbf{NDA}\mathrm{t} = \alpha 1\left(\frac{\mathbf{1}}{\mathbf{A}\mathrm{t}-\mathbf{1}}\right) + \alpha \mathbf{2}\left(\frac{\mathbf{\Delta REV}\mathrm{t}-\mathbf{\Delta REC}\mathrm{t}}{\mathbf{A}\mathrm{t}-\mathbf{1}}\right) + \alpha 3\left(\frac{\mathbf{PPE}\mathrm{t}}{\mathbf{A}\mathrm{t}-\mathbf{1}}\right) + \varepsilon$$

Where:

NDA_t = Non-discretionary accruals in year t

A_{t-1} = Total assets at the end of year t-1

ΔREV_t = Revenues in year t less revenue in year t-1

ΔREC_t = Net receivables in year t less net receivable in year t-1

PPE_t = Gross property plant and equipment at the end of year t

All of the variables have been scaled by lagged total assets.

α1, α2, α3 are firm specific parameters

ε is the residual, which represents the firm specific discretionary portion of total accruals.

a1	a2	a3
0.53	0.09	0.18

These above values of the co-efficient a1, a2 & a3 are used in the above equation to calculate the non-discretionary accruals. These coefficients are found out by regressing the receivables, revenues and the property, plant & equipment on the total accruals.As the discretionary accruals are equal to the difference of the total accruals and the non-discretionary accruals so, the discretionary accruals can be calculated by the following equation:-

$$\mathbf{DA_t = TA_t - NDA_t}$$

Where:

DA_t = Discretionary accruals in year t

TA_t= Total accruals in year t

NDA_t= Non-discretionary accruals in year t

To test the hypothesis following multiple regression equation has been estimated

$$\mathbf{DA = \beta_o + \beta_1(FS) + \beta_2(CGI) + \mu}$$

In this above model the discretionary accruals (DA) is the dependent variable and the firm size (FS) & the corporate governance index (CGI) are the independent variables. The correlation tests have been performed in this analysis before the application of the ordinary least square (OLS) for checking out the relationship between the variables. The final outputs of these tests are shown in the following tables.

Results

Results acquired in form of correlation matrix are as follows:

	CGI	DA	Size
CGI	1	-0.32	.276
DA	-0.32	1	-0.199
Size	.276	-0.199	1

Here is the description of each variable's correlation with other variables. Distinctly correlation between discretionary accruals and quality of corporate governance is negative which shows that there is inverse relation between them and it justifies too. As the corporate governance boosts,this means that employees to secure the interest of stake holders of firm are mounting, so there should also be more security to interest of stake holders. If we focus on the magnitude of relation then we'll come to know that strength is not puny. As far as correlation between discretionary accruals and size is concerned, there is negative relation too. It means that small sized firms are more engaged in earning management while large sized firms are less concerned. Keeping in mind the relation it is quite unproblematic to understand that big firms are less connected with earning management as there is additional capacity to absorb the fluctuations because the large size of firms. But in case of small sized firms there may not be as much competence as that of large sized firms so there needs a more earning management comparatively.

By applying the OLS model we found the following results of co efficient and significance of each co efficient.In the model expressed above, all figures are significant except one the corporate governance quality whose co efficient shows that it is insignificant and its role is not as vital as the size of firm has. Positive co efficient confirms the relation of DA and CGI as discussed above while firm size is showing negative significant relation with discretionary accruals. These results are in consensus of the correlation matrix results suggesting the same output.

Model 1	**Standardized Co efficient**	**Sig. of Coefficient**
Constant		.012
CGI	.025	.703
Size	-.206	.002

Discussing overall, the model is significant so the contribution made by the independent variables to dependent variables is satisfactory. But in Pakistan the rules and regulations are not as implemented as these should be. Corporate governance code is not followed strictly due to which company corporate governance role is not coming out significantly.

Model 1	R^2	Adj R^2	F Statistics	Sig. of F Statistics
	.040	.032	5.179	.006

Earning management may be of two types; positive as well as negative but which type of earning management is needed depends upon the situation. If company needs inflating the income then positive earning management is required and vice versa. Here in this case the firms, under study, are following the approach of positive one. Small sized firms observe more fluctuations in earning so those firms are more needed for the improvement of earning to show the better financial position of firms.

Conclusion

The aim of this research is to quantify the aspects that are used by firms to manipulate their earnings and also the characteristics of such firms in term of their size and corporate governance. The sample consists of the 50 listed companies of KSE 100 index. The time horizon for this study is from 2008 to 2012. Summarizing the whole discussion, the Earning Management is more exaggerated by the size of firms rather by their quality of corporate governance. By taking into account the details of co efficient and correlation matrix and model significance, crux is; model is significant. Among the model major contribution is of size of firms on earning management but in negative direction while minor or insignificant impact is of corporate governance on earning management, reason may be the weak implementation of corporate governance practices in Pakistan. In emerging economies it is observed that there is deviation in trends of earnings. So to help academicians and investors in predicting earnings management policy, this research reveals the effect of corporate governance on Earning Management. Due to short period of time we choose the sample of 50 listed companies and the time horizon for the sample data of 5 years. We also skipped the organizations for which the proper data was not available and the utilities & financial sector. We sued the cash flow statement approach to estimate the discretionary accruals because the required data for balance sheet approach not available. So, the further research can be done by increasing the sample size and the time horizon as well or by adding the some other variables in the model.

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