Corporate Governance and Earnings Management: An Empirical Evidence Form Pakistani Listed Companies

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Abstract

The study examines the relationship between quality of Corporate Governance and Earnings Management. A set of listed Companies have been investigated to analyze the relationship for the year 2006. Quality has been measured by assigning weights to a set of related variables whereas earnings management has been quantified by discretionary accruals. Modified Cross Sectional Jones Model has been used to determine the Discretionary Accruals. Ordinary least square estimation indicates the presence of Positive relationship between corporate governance and earnings management. Results appear unconventional, It may be due to the transition phase through which the Pakistani Companies are passing after promulgation of code of corporate governance in 2002 which has created a tendency to increase discretionary accruals as a risk averse measure.

Keywords: Corporate Governance, Earnings Management,

Introduction

By the evolution of today’s modern business many of the corporations have become owned and controlled by families and the major agency problem exists not only between the management and owners in general, but between the management (the controlling family) and minority shareholders as well. Due to the increase in this conflict the issue of trust has taken the key position in today’s financial analysis procedures. Because management is accountable to shareholders and with in the business other stakeholders are also present and each stakeholder has his own interest in the business so, each one who is having any where any authority try to convert the results of that authority into his own favor. Earnings management is one of the examples which accountants by the will of authorities smoothen their earnings. Here a need has been assessed in the result of which concept of appropriate corporate governance emerged. In the continuation of which Securities and Exchange commission of Pakistan gave a code of Corporate Governance in March 02.
Better governance is supposed to lead to better corporate performance by preventing the expropriation of controlling shareholders and ensuring better decision-making. This expropriation may be due to the result of smoothing of earning intention which is known as earnings management. This study attempts to assess that whether corporate governance creates any impact on earnings management or not.

Good governance means little expropriation of corporate resources by managers or controlling shareholders, which contributes to better allocation of resources and better performance. As investors and lenders will be more willing to put their money in firms with good governance, they will face lower costs of capital, another source of better firm performance. Other stakeholders, including employees and suppliers, will also want to be associated with and enter into business relationships with such firms, as the relationships are likely to be more prosperous, fairer, and longer lasting than those with firms with less effective governance.

Over the past two decades a number of prominent participants in the debates surrounding professional accounting and auditing standards have increased the attention given to the role of corporate governance procedures in financial reporting practices. Corporate governance is not just about the process by which elected representatives as directors make decisions. It is also about the way organizations are held accountable. The most obvious way is via financial reporting. A lot of financial reporting issues have remained under discussion in the financial literature, earnings management is one of them. Impact of corporate governance on earnings management is the core theme of this paper. Implicit in all of their recommendations is the assertion that the credibility of financial statement information is related to specific institutional features of corporate governance. The purpose of this paper will be to identify the empirical evidence that such a relation exists. Purpose is to find out correlation between different measures of earnings management and the composition of firms' boards of directors, particularly the subset of directors serving on the audit committee.

In developing countries like Pakistan, more attention needs to be paid to the corporate governance issue. With most large corporations owned and controlled by families and with family members holding key managerial positions, however, the major agency problem exists not between the management and owners in general, but between the management (the controlling family) and minority shareholders. The existence of large shareholders may by itself not be a matter of concern, or may even be a blessing 6, but the beneficial effect of large shareholders should be expected only when management is separated from ownership or when proper corporate governance mechanisms are in place so that outside shareholders can effectively check misbehavior by controlling owners. These conditions are generally not met in most companies in Pakistan 7.

Organization of the paper is in the way that first section contains introduction, second section contains work done by other people in the world on the issue, Data and methodology is presented in third section, fourth section contains Results and conclusion and in the last section references have been presented.

**Literature Review**

This section has been distributed in two parts, one is relevant to the work done by other academicians and practitioners purely on corporate governance and financial reporting issues and in the other section different literatures relevant to earnings management have been presented.

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6 Many empirical studies show that firms with large shareholders tend to perform better because they have strong incentive to closely monitor their firms and are thus less likely to suffer from the free-rider problem (Jensen and Meckling 1976; Shleifer and Vishny 1986, 1997).

7 The fact that controlling owners are typically preoccupied with conducting the managerial function themselves may be due to the perceived agency problem when management is separated (with limited transparency and disclosure, poor rule of law, and poor corporate governance) or to any potential rents expected from the managerial function.
Corporate Governance and Financial Reporting Issues

One of the most important functions that corporate governance can play is in ensuring the quality of the financial reporting process. Levitt (1999) stated in a speech to directors, "the link between a company's directors and its financial reporting system has never been more crucial." Further, the Blue Ribbon Commission (1999) called for auditors to discuss with the audit committee the quality and not just the acceptability of the financial reporting alternatives.

Corporate governance has received increasing emphasis both in practice and in academic research (e.g., Blue Ribbon Committee Report 1999; Ramsay Report 2001; Sarbanes-Oxley 2002; Bebchuk and Cohen 2004). This emphasis is due, in part, to the prevalence of highly publicized and egregious financial reporting frauds such as Enron, WorldCom, Aldelphia, and Parmalat, an unprecedented number of earnings restatements (Loomis 1999; Wu 2002; Palmrose and Scholz 2002; Larcker et al. 2004) and claims of blatant earnings manipulation by corporate management (Krugman 2002). Further, academic research has found an association between weaknesses in governance and poor financial reporting quality, earnings manipulation, financial statement fraud, and weaker internal controls (e.g., Dechow et al. 1996; Beasley 1996). Given these developments, there has been an emphasis on the need to improve corporate governance over the financial reporting process (Levitt 1998, 1999, 2000), such as enacting reforms to improve the effectiveness of the audit committee (Blue Ribbon Committee 1999; Sarbanes-Oxley Act 2002) and to make the board of directors and management more accountable for ensuring the integrity of the financial reports (SEC 2002, The Business Roundtable 2002) as well as a rapidly expanding of research on corporate governance.

Investment decisions are based on information and the quicker and more reliable the information, the less likely it is that decisions will be made on emotion and herd instinct. This is in part due to the trust that investors on Wall Street have that the information underpinning their decisions is accurate and transparent, and that they get it at the same time as everyone else. This was not true of the Asian crisis, when the devaluation of the Thai bath set off investor reactions of panic and flight in response to growing knowledge about the deep cracks in the financial sectors. And it certainly was not true in Indonesia, where you had a situation in which, the more investors - - foreign and domestic - - learned about the problems within the economy; the bigger the crisis in confidence grew (Baird, 2000).

Prior accounting research and the accounting profession have focused primarily on the board of directors and the audit committee. For instance, the Public Oversight Board (POB 1993) defined corporate governance as "those oversight activities undertaken by the board of directors and audit committee to ensure the integrity of the financial reporting process." However, a narrow view of corporate governance restricting it to only monitoring activities may potentially undervalue the role that corporate governance can play.

Further, in a recent meta analysis of corporate governance research, Larcker et al. (2004, 1) conclude that "the typical structural indicators used in academic research and institutional rating services have very limited ability to explain managerial behavior and organizational performance." Thus, a more comprehensive framework should consider all major stakeholders in the governance mosaic, including those inside and outside the firm. For instance, the external auditor plays a significant role in monitoring financial reporting quality and hence can be viewed as an important participant in the governance process. We do not suggest that extant research has not looked at the role of the auditor but rather that the role of the auditor in the governance process is very complex as the auditor interacts with other stakeholders in the governance mosaic such as the audit committee and the management. In turn, the interplay among the stakeholders is affected by outside forces such as by regulators and stock exchanges as well as pressure to meet financial analysts. Further, the corporate governance mosaic suggests we need to look beyond much of the focus of current research in corporate governance that has concentrated on documenting associations and not causal relationships (Larcker et al. 2004) and to complement the current research by also investigating the substance of the interactions in the corporate governance arena. For example, although the emphasis in corporate governance research has been on looking at issues of independence, Cohen et al. (2002) document that unless management allows itself to be monitored the substance of governance activities will be subverted.
Important thing is interrelationships between the various actors and mechanisms within the corporate governance mosaic. For example, the interactions among the audit committee, the external auditor, the internal auditor, the board, and the management are crucial to effective governance and to achieving high quality financial reporting (Sarbanes-Oxley Act 2002). An interview study with experienced auditors (Cohen et al. 2002) revealed that management has a significant influence over these parties. Some of the auditors in that study argue that if management does not want to be "governed", they can't be (Cohen et al. 2002 582). Further, management may place passive, compliant members on the board who may satisfy regulatory requirements but are reluctant to challenge management. For example, QWEST had no outside directors with experience in the company's core business. They also had a compensation committee that consistently awarded excessive bonuses to management in spite of the firm's relatively inferior performance (Business Week 2002).

Other actors and mechanisms are largely external to the corporation, also influence its effective governance in significant ways and are integral to safeguarding the interest of a company's stakeholders. Examples of such actors include, but are not limited to, regulators, legislators, financial analysts, stock exchanges, courts and the legal system, and the stockholders. These external players often shape and influence the interactions among the actors who are more directly involved in the governance of the corporation. For instance, the Sarbanes-Oxley Act (2002) has significantly impacted all direct players in the corporate governance mosaic not only in terms of their role and function in the governance process but also in terms of how the players interact with one another. Under Sarbanes-Oxley, the audit committee now has the responsibility to hire and fire the auditor and to approve the non-audit services that the auditing firm can perform (Sarbanes-Oxley Act 2002). Further, management must state that it has the responsibility for maintaining the internal control system and for evaluating its effectiveness (Geiger and Taylor 2003). The actors in the governance process, highlights their potential interactions, and suggests that the governance process impacts the quality of financial reporting (e.g., transparency, objectivity) and, in the extreme, earnings manipulation and outright fraud.

Although one should expect that "better" corporate governance leads to improved financial reporting, there is a lack of consensus as to what constitutes "financial reporting quality." For example, although Sarbanes-Oxley (2002) require auditors to discuss the quality of the financial reporting methods and not just their acceptability, the notion of financial reporting quality remains a vague concept. As Jonas and Blanchet (2000, 353) state, "in light of these new requirements, auditors, audit committee members, and management are now struggling to define "'quality of financial reporting'."

Rather than define "quality of financial reporting," prior literature has focused on factors such as earnings management, financial restatements, and fraud that clearly inhibit the attainment of high quality financial reports and have used the presence of these factors as evidence of a breakdown in the financial reporting process. Specifically, prior literature has examined the role of the various players in the governance mosaic (e.g., board, audit committees, external auditor, internal auditors) and the extent to which these players have either individually or collectively influenced the attainment of financial reports that are free from material misstatements and misrepresentations. The principal players identified in prior literature include the board of directors, the audit committee, the external auditor, and the internal auditors.

The term “financial reporting” incorporates not only financial statements, but also includes other means of communicating financial and non-financial information, e.g. management forecast, stock exchange documents, etc. (SFAC N.1, 1978). Regarding the concept of “corporate governance” there is the problem of its definition due to the lack of consistent usage of the term (Keasey et al., 1997; Tricker, 2000). For the purposes of this paper “corporate governance” is defined as the system which deals with the wielding of power over corporate entities (Tricker, 1998), outlining the structures and processes associated with strategic decision-making and control within a corporation (Melis, 2004).
Whereas the financial reporting system is rather formal and institutionalized, the corporate governance system is relatively abstract and undefined. It is believed that the effectiveness of the systems of financial reporting and corporate governance is positively correlated (Melis 2002).

On the one hand, financial reporting constitutes an important element of the corporate governance system. In fact, some failures of corporate governance may be reduced by an adequate financial reporting system. On the other hand, some problems of the financial reporting system find their origin in deficiencies of the system of corporate governance (Whittington, 1993).

The key issue in understanding how their relationship is shaped is to analyze their theoretical roots. Disclosure may be considered the foundation of any system of corporate governance (Cadbury, 1999; Mallin, 2002). A system of corporate governance needs a good level of disclosure and an adequate information to eliminate (or at least reduce) information asymmetries between all parties in order to balance the powers of the corporate stakeholders, making corporate insiders accountable for their actions.

Disclosure is also one of the fundamental goals of the financial reporting system (Melis 2004). Since Amaduzzi (1949) had been argued that financial statements (and the whole financial reporting system) are to be considered the result of a conflict of interests and balance of power between different stakeholders. The information disclosed by the financial statements describes what the corporate insiders want to be disclosed about the corporation’s activities and performance.

In a recent research of corporate governance Melis (2004) indicated that if corporate insiders are unaccountable, or accountable only to some powerful stakeholders (e.g. a large creditor or a block holder), they will have the incentive to disclose only the information that is functional to those specific interests. If they are accountable only to some powerful stakeholders, they will draw up the financial statements according to the interests of the powerful stakeholder they are accountable to. It may therefore be argued that the financial reporting system needs an adequate balance of the corporate stakeholders’ powers to be able to give a true and fair view of the corporation to all strategic stakeholders. It also seems correct to argue that each system is influenced positively by the other one. The output produced by one system constitutes the input needed by the other and vice versa. Both of them pursue the accountability of the most powerful stakeholders towards the other legitimate stakeholders.

The system of financial reporting may play a key role improving the soundness of the corporate governance system (Melis 2002). One of the key functions of the financial reporting system is to limit top management’s discretion, constraining top management to act in the shareholders’ interest (Jensen, Meckling, 1976; Watts, Zimmerman, 1978), or, in a wider perspective, in the interest of all the strategic corporate stakeholders. Making corporate insiders accountable is clearly also a key goal of any corporate governance system. The use of generally accepted accounting principles serves the need of a better quality of the information given by the financial statements and a consequent more effective accountability of the controlling agents (Pizzo, 2000).

The institution of more and more detailed accounting principles and procedures limits the controlling agent’s discretion in the drawing up of the financial statements (Melis G., 1995).

This may have a positive influence on the corporate governance system, since by controlling and manipulating the quality of corporate information disclosed in the financial statements, the dominant stakeholder (i.e. the one that effectively controls the corporation) would be able to influence the uncertainty attached to the estimates that shareholders (and, in general, all the strategic stakeholders) make of any given variable (Forker, 1992). By doing so, the dominant stakeholder would make monitoring procedures less effective, thus he/she would become less accountable to the other strategic stakeholders. The corporate governance system is affected by the degree of information asymmetries existing between the corporate stakeholders (Melis 2002).

This is indeed one of the key functions of the financial reporting system (e.g. Accounting Standards Board, 1995), although an effective financial reporting system is only a necessary but not sufficient condition for a good corporate governance system. An effective financial reporting system is not sufficient to solve all the corporate governance problems, since corporate stakeholders may be
unable (or may not have the incentive) to process the information given or even the “informed” stakeholder may not be able to exercise its monitoring because of high related costs (Whittington, 1993).

Now question arises how the system of corporate governance may improve the quality of financial reporting? The system of corporate governance may play a key role in the improvement of the quality of the financial reporting system and corporate communication. Firstly, an effective corporate governance system is able to identify which are the strategic stakeholders to whom the financial reporting system should address the flow of information about the corporate activities. These stakeholders may be either corporate insiders or outsiders and have different information needs, according to the different role they have inside or outside the corporation (Coda, 1970; Terzani, 1995). For example, a shareholder may be interested in the ability of the corporation to remunerate his/her shares (via dividends or capital gains in the stock exchange market), while a creditor may want to be assured that capital is maintained intact so that the corporation will able to pay back its debts. An employee may have an interest to understand whether the corporation will be able to keep his/her job position or not. Despite the fact that in the long term all the different interests may converge in the overriding goal of value creation and corporation’s survival (Dezzani, 1981), in a shorter period different stakeholders may have different interests and informational needs. By identifying their needs, the corporate governance system makes the role of the financial reporting system more effective, improving the quality of corporate communication towards all the strategic stakeholders.

Interest in audit committees as part of overall corporate governance has increased dramatically in recent years, with a specific emphasis on member independence, experience, and knowledge. Greater independent director experience and greater audit knowledge was associated with higher audit committee member support for an auditor who advocated a "substance over form" approach in the dispute with client management. Conversely, concurrent experience as a board director and a senior member of management was associated with increased support for management. (Deezort & Salterio, 2001)

For all the above mentioned reasons, it seems correct to argue that a sound system of financial reporting, which produces a good quality of corporate communication by giving a true and fair view of the corporation, may have a positive influence on the effectiveness of the corporate governance system. However, the corporate governance system and the system of financial reporting are not characterized by a one way relationship. Not only does the financial reporting system may improve the corporate governance system, but it may also argued that the corporate governance system may have a positive influence on the quality of the corporate communication and the overall effectiveness of the financial reporting system.

The Cadbury Report (1992) recommends the board of directors to pay a great attention to this issue, aiming for the highest level of disclosure. It is a corporate board’s duty to assure that the financial statements meet the spirit, not only the letter, of the true and fair view principle. A sound system of corporate governance seems necessary to achieve the purpose of the “true and fair view” given by the financial statements, and to improve the overall quality of the financial reporting system. However, it should also be taken into consideration that the quality of information produced by the financial reporting system is fundamental for a corporate governance system to be effective (Melis, 2004). The power of the most powerful corporate stakeholder can only be balanced if the other strategic stakeholders have the information they need to exercise their influence and hold the former accountable. Therefore, it seems correct to argue that the effectiveness of the systems of financial reporting and corporate governance is highly correlated, with any improvement in either system having a positive influence on the other, and vice versa.
Scoring Corporate Governance Practices
In the literature different authors have used different criteria to score the corporate governance practices. For example, the corporate governance rankings by the investment bank Brunswick Warburg that Black (2000) uses are based on eight corporate governance elements with different weights: disclosure and transparency, dilution through share issuance, asset stripping and transfer pricing, dilution through a merger or restructuring, bankruptcy, limits on foreign ownership, management attitude toward shareholders, and registrar risk.

Black, Jang, and Kim (2003) choose 42 items from 123 survey questions, excluding those asking management's views rather than facts, those irrelevant to corporate governance, those that are ambiguous as to whether they represent good or bad corporate governance, and those to which the answers vary little from firm to firm. They then classify the 42 items into four categories, each of which has an equal weight of 0.25: shareholders’ rights, board of directors in general, outside directors, and disclosure and transparency.

The survey Klapper and Love (2002) use has a total of 57 questions with yes or no answers. They are classified into the following seven categories: discipline, transparency, independence, accountability, responsibility, fairness, and social awareness. Each category has a weight of 0.15 except for the last one, which has a weight of 0.10.

Opinion surveys of professional investors may provide some guidance on the construction of corporate governance scores. McKinsey & Company's (2002) survey respondents say that for corporations, timely and broad disclosure is the highest priority, followed by independent boards, effective board practices, and performance-related compensation for directors and management.

Investors' responses will, of course, reflect their major concerns given realities in particular regions or countries. A survey by PricewaterhouseCoopers Indonesia and the Jakarta Stock Exchange (2002) reports that what Indonesian institutional investors value most highly includes disclosure of related-party transactions and corporate governance practices. The existence of corporate governance codes and business ethics, as well as the quality and independence of external auditors, audit committees, and commissioners and directors, is also important. The existence of nomination and remuneration committees and the number of independent commissioners seem to be less essential for their investment decisions.

Corporate governance practices may be determined by the scope and nature of associated agency problems (agency characteristics) of firms, that is, their need to attract external investment or external investors’ difficulties in monitoring the firms. As La Porta and others (1998) argue, good corporate governance is needed for better access to external financing at lower cost. This indicates that firms in need of a good deal of external financing, such as rapidly growing firms, have an incentive to improve their corporate governance. In addition, as Himmelberg, Hubbard, and Palia (1999) argue, firms facing large information asymmetry because of other characteristics of their firms may signal to the market their intent to protect investors better by adopting good corporate governance policies. This might be the case for large firms, young firms, or firms with relatively large intangible assets.

However, as Klapper and Love (2002) find, the effect of CG on firm performance may vary depending on the country-specific level of investor protection. More specifically, firms with relatively good governance practices are likely to be more highly valued by investors in countries where investor protection is generally poor. Extending this argument, we may also expect the market to assess the same CG differently depending on corporations’ ownership and control structure. For instance, if the market suspects that controlling owners can find ways to maximize their interests at the expense of other shareholders however good their firms’ corporate governance practices may appear, then the market is likely to discount the value of measured CG.

Earnings Management
In the literature, earnings management has been discussed under two point of views, According to Beideman [1973] and Lipe [1990] earning management techniques reduce the variability of earnings
and, therefore, shareholders benefit because the reduced uncertainty and improved predictability of future earnings help in enhancing price earning multiples. However, they claim that abnormal accruals over time tend to reverse and are readily detected by investors.

The second view (Schipper and Vincent, 2003) is that manipulating income in contravention of sound accounting practices adversely affects shareholders and in contrary to an underlying concept of “representational faithfulness” of earnings. Closely associated with earning management is the concept of earning quality, which according to Schipper and Vincent, is the extent to which reported earnings faithfully corresponds to change in net economic assets other than transactions with owners. Their concept is a departure from the earnings quality constructs based on time series properties of earnings (i.e. persistence, predictability, and variability of earnings).

However, both schools of thought believe that managers use discretionary accruals to convey their private information to investors. Basic tool of earnings management is discretionary accruals, Dechow et al [1995] evaluated the relative performance of competing models for measuring discretionary accrual. According to her all the models are good to measure discretionary accruals but Jones Model, which she gave in 1991, modified to detect revenue based earning management provides the most powerful test of earning management and generates fewest type II errors. Prior studies have also focused on evaluating the ability of discretionary accruals models to segregate earnings into discretionary and non-discretionary components by examining their time series properties.

Healy and Whalen [1999] summarize the major motivations to manage earnings, which can be discussed as follows:

- Public offerings: “Window dressing”, or enhancing financial reports prior to an IPO or secondary equity offering to attract better valuations;
- Executive compensation: Increasing reported earnings to increase executive bonuses;
- Financial liabilities: Fulfilling financial requirements in loan covenants;
- Regulation: Reducing regulation costs or enhancing regulatory benefits.

Beneish [2001] suggests that an insider trading can be added to this list of motives. Managers aware of mis-statement of profits can benefit by trading the securities. Stolowy and Breton [2000] suggest three broad objectives for earnings management: minimization of political costs; minimization of the cost of capital and maximization of managers’ wealth.

A huge body of literature explains the phenomenon of earnings management. Schipper [1989] provides a conceptual framework for analyzing earnings management from an informational perspective. Deangelo [1988] refers to earnings management in buyout cases. Teoh, Welch and Wong [1998a, 1998b] find that firms manage earnings prior to seasoned equity offers and IPO’s. Burgstahler and Eames [1998] conclude that firms manage earnings to meet financial analysts’ forecasts. Watts and Zimmerman [1978] suggest that earnings management can be explained from a contracting (with managers and/or lenders) point of view, since it is costly for relevant decision makers to “see through” the earnings management. It should be emphasized that the literature discusses earnings management mostly in terms of income smoothing techniques and is primarily focused on accruals. Dye [1988] and Verrechia [1986] propose analytic models of earnings management.

Soon Suk Yoon, Gary Miller and Pornsit Jiraporn in “Earning Management Vehicles for Korean Firms” [2006] showed that there are clear discrepancies in earning management vehicles for use when firms manage earnings in different directions. More specifically, they found that income-increasing firms frequently employ non-cash revenues including asset disposal gains. Income decreasing firms employ non-cash expenses including bad debt expenses.

In this paper, on the basis of above mentioned literature we will try to see the application of these tools of earnings management on Pakistani stock market and Impact of corporate governance on these tools.
Data and Methodology

Sample

The sample has been selected from the KSE 100 index comprising 53 listed companies and excludes:
1. Financial companies (because their capital structure and profits are different)
2. Companies for which the data could not be found

Sources of data collection are annual reports, websites and direct contacts as well.

Methodology

Hypothesis

\[ H_0 = \text{Corporate Governance impacts on earnings management} \]
\[ H_1 = \text{Corporate Governance does not impact on earnings management} \]

In order to test the hypothesis different models by reviewing the literature have been opted to measure Corporate Governance practices and earnings management performed by companies.

Model used for the Measurement of Corporate Governance

In this paper by being in line with Klapper and Love (2002), the quality of corporate governance (QCG) has been estimated by the use of following equation.

\[ \text{QCG} = f (\text{BS, OS, AI}). \]
\[ \text{BS} = \text{Board Structure} \]
\[ \text{OS} = \text{Ownership Structure} \]
\[ \text{AI} = \text{Audit Committee Independence} \]

Schematic Diagram of Theoretical Framework.

Above diagram represents the theoretical framework for the measurement of quality of Corporate Governance. In each of the company above mentioned functions has been identified and on the fulfillment of codes and literature’s criteria marks has been assigned to each company. Each function has been given a weight on the basis of its importance as far as control on earnings management is concerned. After allocating the marks and getting their respective weights, weighted marks have been calculated. To obtain the aggregate score of each company calculated weighted marks have been summed up. Criteria and form used for measuring quality of Corporate governance is attached in appendix.
Earnings Management
In literature accruals have been intensively used as the proxy for earnings management. These accruals can be measured by two different approaches.
- Balance sheet approach
- Cash flow statement approach

Balance Sheet Approach
According to this approach total accruals can be calculated by using the following formula. (Healey [1985] and Jones [1991]):

\[ \Delta A_{i} = \Delta CA_{i} - \Delta Cash_{i} - \Delta CL_{i} + \Delta DCL_{i} - DEP_{i} \]

Where:
- \( \Delta CA_{i} \) is change in current assets in year \( t \)
- \( \Delta Cash_{i} \) is the change in cash and cash equivalents in year \( t \)
- \( \Delta CL_{i} \) is the change in current liabilities in year \( t \)
- \( \Delta DCL_{i} \) is the change in debt included in the current liabilities in year \( t \)
- \( DEP_{i} \) is depreciation and amortization expense in year \( t \)

Cash Flows Statement Approach
Accruals can also be calculated by using this approach which can be seen by using the following equation:

\[ TA_{i} = NI_{i} - CFO_{i} \]

Where:
- \( TA_{i} \) is total accruals in year \( t \)
- \( NI_{i} \) is Net Income in year \( t \)
- \( CFO_{i} \) is cash flows from operating activities in year \( t \)

In weighing both approaches, we found that more researchers prefer cash flows approach in front of balance sheet approach. Collins and Hriber [1999] argued that using balance sheet approach to compute total accruals is inferior in some circumstances to a cash flow statement based approach. However, Eli Bartov and Ferdinand A. Gul and Judy S.L Tsui used balance sheet approach [2000]. But they themselves pointed out that reason for using balance sheet approach is that data regarding cash flows from operations was not available over entire period of estimation that is why they used this approach. Therefore, we also have used cash flow statement approach in this study for the calculation of total accruals.

In the view of researchers total accruals are not actually earnings management. Earnings management can only be performed where discretion for these accruals is with the authorities. So, accruals has been divided in two parts i.e. discretionary accruals and non discretionary accruals. After calculating total accruals, non-discretionary accruals are subtracted from total accruals to get discretionary accruals.

Many methods have been used by researchers in order to calculate the discretionary accruals like The DeAngelo Model [1986], The Healy Model [1985], The Jones Model [1991] and modified Jones model [1995]. The most latest model is Modified Cross Sectional Jones Model [1995]. We also have used the same method in our study to calculate the discretionary accruals.

Measurement of Discretionary Accruals
According to Modified Cross Sectional Jones Model [1995] discretionary accruals are calculated by deducting nondiscretionary accruals from total accruals and these non discretionary accruals are calculated as follows:
Non-discretionary accruals are estimated during the event year (i.e. the year in which earnings management is hypothesized) as:

\[ NDA_t = \alpha_1 \left( \frac{1}{A_{t-1}} \right) + \alpha_2 \left( \frac{\Delta REV_t - \Delta REC_t}{A_{t-1}} \right) + \alpha_3 \left( \frac{PPE_t}{A_{t-1}} \right) \]

Where: \( TA_t \) is total accruals in year \( t \) scaled by lagged total assets
\( \Delta REV_t \) is revenues in year \( t \) less revenue in year \( t-1 \)
\( PPE_t \) is gross property plant and equipment at the end of year \( t \)
\( \Delta REC_t \) is net receivables in year \( t \) less net receivable in year \( t-1 \). All of the variables have been scaled by lagged total assets.
\( A_{t-1} \) is total assets at the end of year \( t-1 \)
\( \alpha_1, \alpha_2, \alpha_3 \) are firm specific parameters
\( \varepsilon \) is the residual, which represents the firm specific discretionary portion of total accruals.

**Estimation through Ordinary Least Square Method**

In order to calculate \( \alpha_1, \alpha_2, \alpha_3 \) regression has been used. Total accruals calculated through cash flow statement approach have been regressed on difference between change in revenue in current year and change in receivable in current year and property, plant and equipment as depicted in the above equation. Then coefficient values have been adjusted in equation to calculate non-discretionary accruals. As a result following coefficients were obtained:

<table>
<thead>
<tr>
<th>( \alpha )</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>( \alpha_1 )</td>
<td>0.429335</td>
</tr>
<tr>
<td>( \alpha_2 )</td>
<td>0.126765</td>
</tr>
<tr>
<td>( \alpha_3 )</td>
<td>0.067926</td>
</tr>
</tbody>
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These values of coefficients \( \alpha_1, \alpha_2 \) and \( \alpha_3 \) were adjusted in equation to measure non discretionary component of total accruals. As we know discretionary accruals are equal to difference between total accruals and non discretionary accruals so following equation has been used to find out the discretionary accruals.

\[ DA_t = TA_t - NDA_t \]

Where:

\( NDA_t \) is non discretionary accruals, \( DA_t \) is discretionary component of accruals

**Regressing quality of Corporate Governance with Discretionary Accruals**

To test the hypothesis following regression equation has been estimated.

\[ DA = \alpha + \beta_1 (QCG) + \mu \]

Discretionary accruals calculated by Modified Cross Sectional Jones Model [1995] have been used as dependent variable and quality of corporate Governance measured in above mentioned model has been used as independent variable. Correlation test has also been performed before applying ordinary least square to test the relationship between the variables. Results of both of the tests are shown below:
Results

Results emerged by applying Correlation test are shown in the following correlation matrix.

<table>
<thead>
<tr>
<th></th>
<th>DA</th>
<th>CG</th>
</tr>
</thead>
<tbody>
<tr>
<td>DA</td>
<td>1</td>
<td>0.319418</td>
</tr>
<tr>
<td>CG</td>
<td>0.319418</td>
<td>1</td>
</tr>
</tbody>
</table>

Discretionary accruals are found positively correlated with Quality of corporate Governance. In the result of this test our null hypothesis is accepted that relationship exists between Corporate Governance and earnings management. For further verification Ordinary least square (OLS) test has been performed, the results of which are shown in the following table:

<table>
<thead>
<tr>
<th>Coefficient</th>
<th>t-test</th>
<th>R-square</th>
<th>F-statistics</th>
<th>Significance of F-statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.556996</td>
<td>2.407202</td>
<td>0.102028</td>
<td>5.794619</td>
<td>0.019733</td>
</tr>
</tbody>
</table>

Quality of corporate governance has been found significantly positively related with discretionary accruals in OLS as well. Which means that as quality of corporate Governance increases discretionary accruals also increases. Apparently the relationship looks very astonishing because of the fact that whole of the theme of Corporate governance is based upon the security of stakes of all of the stake holders by applying proper rules and regulations. Here we can also analyze the accruals then we will be able to reach on a decision that in which direction the relationship should be. Normally it is considered that earnings management is the exaggeration of earnings. But Direction of accruals can be in both directions that is positive and negative. Negative direction means to deflate the income and positive direction means to inflate the earnings, as basic objective behind the earnings management is smoothing of earnings. Deflation of earnings doesn’t mean that earnings are being hidden they just are to be deferred there could be a lot of reasons behind that, i.e. may be management want to be conservative which is also the accounting principle. But by performing such earnings management, earnings can only be deferred cant be hidden. But one thing can be expressed here that by deflation taxes can be saved at one point of time and time value of money benefit can also be attained by such earnings management.

The other reason of this positive relationship could be the limitation of this model as well that has already been discussed that is as only two years are compared. If in the last year earnings management was performed and in the current year no earnings management was done ultimately there would be difference in accruals. Which will result in the misappropriation of discretionary accruals and results will be distorted. In our data maximum companies were having negative discretionary accruals so we can say here that companies in Pakistan try to smoothen their income and when quality of corporate governance increases the diversity of people in decision making also increases. And being prudent companies are performing earnings management with them.

Conclusion

From all of the above discussion it has been clear that quality of corporate governance is positively related with earnings management as far as Pakistani corporate culture is concerned. There could be a lot of reasons which have already been discussed in the results section. An other reason could be the disclosure of corporate governance practices given by companies. That is some companies do not disclose their actual compliance of corporate governance practices and as our reliance is on the information given by the company so the results could be distorted due to this fact.

Limitations of the Models used

Model used for measuring quality of Corporate Governance:- Scoring the quality of corporate governance is subjective and can be controversial. Analysts are unlikely to agree on whether or not a
certain aspect of corporate governance should be included, how much weight should be given to each aspect. However, aggregate scores are based on extensive literature survey, the problem of subjectivity in scoring is likely to be minimized but not mitigated.

**Model used for measuring Earnings management:** Discretionary accruals have been calculated by taking the difference of Non discretionary accruals from the total accruals. And these NDA are based upon the two years difference of relevant variables. So, If in the last year the company was not performing or performing earnings management that may distort the current years earnings management results.

**References**


[30] Todd dezoort, stevene. Salterio,” The Effects of Corporate Governance Experience and Financial Reporting and Audit Knowledge on Audit Committee Members' Judgments” The University of Alabama

Appendix-A

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Variable</th>
<th>Definition</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>OWNCON j,t</td>
<td>Ownership Concentration</td>
<td>Percentage of total shares held by the top 20 shareholders divided by the total number of shares</td>
<td></td>
</tr>
<tr>
<td>OWNMANj,t</td>
<td>Managerial Ownership</td>
<td>Percentage of total shares held by executive directors divided by the total number of shares.</td>
<td></td>
</tr>
<tr>
<td>BRDINDjt</td>
<td>Board Independence</td>
<td>independent directors divided by the total number of Directors</td>
<td></td>
</tr>
<tr>
<td>BRDSZEjt</td>
<td>Board Size</td>
<td>Number of directors on the board.</td>
<td></td>
</tr>
<tr>
<td>AUDINDjt</td>
<td>Audit Committee Independence</td>
<td>Number of independent directors on the audit committee divided by the total number of directors on the audit committee.</td>
<td></td>
</tr>
</tbody>
</table>
Appendix-B
Scoring Criteria and their weights

Presence of INED’s in the Board & In Audit Committee: Weight 55%

Board Structure: Directors are governor of companies. Therefore board structure is core issue of corporate governance. A balanced and effective board is considered essential for good governance.

1. Number of INEDs:

<table>
<thead>
<tr>
<th>Range</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>0%--20%</td>
<td>1</td>
</tr>
<tr>
<td>21%--40%</td>
<td>2</td>
</tr>
<tr>
<td>41%--60%</td>
<td>3</td>
</tr>
<tr>
<td>61%--80%</td>
<td>4</td>
</tr>
<tr>
<td>81% and above</td>
<td>5</td>
</tr>
</tbody>
</table>

2. No. Of INEDs in Audit Committee:

<table>
<thead>
<tr>
<th>Range</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>0%--20%</td>
<td>1</td>
</tr>
<tr>
<td>21%--40%</td>
<td>2</td>
</tr>
<tr>
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</tr>
<tr>
<td>61%--80%</td>
<td>4</td>
</tr>
<tr>
<td>81% and above</td>
<td>5</td>
</tr>
</tbody>
</table>

Ownership Structure (Weight 45%)

1. Ownership Concentration

<table>
<thead>
<tr>
<th>Range</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>0%--20%</td>
<td>5</td>
</tr>
<tr>
<td>21%--40%</td>
<td>4</td>
</tr>
<tr>
<td>41%--60%</td>
<td>3</td>
</tr>
<tr>
<td>61%--80%</td>
<td>2</td>
</tr>
<tr>
<td>81% and above</td>
<td>1</td>
</tr>
</tbody>
</table>

2. %age of shares held by Board of Directors

<table>
<thead>
<tr>
<th>Range</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>0%--20%</td>
<td>5</td>
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<tr>
<td>21%--40%</td>
<td>4</td>
</tr>
<tr>
<td>41%--60%</td>
<td>3</td>
</tr>
<tr>
<td>61%--80%</td>
<td>2</td>
</tr>
<tr>
<td>81% and above</td>
<td>1</td>
</tr>
</tbody>
</table>