

# CHAPTER 1

## INTRODUCTION

### 1.1. Background of the Study

Among regulators and practitioner earnings management has been a consistent and of great interest in the literature of accounting earnings management (henceforth EM) has a considerable attention. Earnings management is defined as in the process of financial reporting the management done a purposeful intervention in order to gain benefits for the organization and to gain the personal benefits as well Blom (2009). Depending upon this definition for the stakeholder's earnings management is opportunistic and it is not informative. Healy and Wahlen (1999) defined EM in such way that when the managers use judgment in structuring transactions and financial reporting to mislead stakeholders of the firm by altering the financial reports about the influence contractual outcomes or underlying the company's economic performance that is dependent on the disclosed figures of accounting.

One more definition is offered which is common who observes that "In the process of external financial reporting it really mean that earnings management is "disclosure management" in the sense of a purposeful interference with a vision to obtain private gain from the managers or the stakeholders Schipper (1989). Field, Lys and Vincent (2001) stated that earnings management occurs when the managers without or with restrictions, over the numbers of accounting exercise their discretion. Such decision can either be firm's value opportunistic or firm value maximizing. Therefore, there are two types of earnings

manipulation which are informative and opportunistic. Opportunistic earnings management is defined as that by pursuing the interests of management the managers seek to misguide the investors. To strategically operate the income of bonus the managers use the accruals. When the earnings management lost by the stakeholders it results in an abnormal private gain for the managers Healy (1985).

There was a wide range of association between higher degrees of earnings management and managerial compensation which is indeed supported by many evidences. It is documented that the usage of discretionary accrual at firms is more commonly occurring where the value of stock is closely tied by the top management compensation and when the options of stock are involved this applies there particularly Bergstresser and Philippon (2006).

Holthausen and Leftwich (1983) were first enunciated the informative earnings management whose goals are to enhance the maximization value. Managerial discretion is a mean by which the managers reveal their private expectations to the investors concerning the future flow of the cash of the firm. Stakeholders earn when the earnings manipulation takes place to reduce the political cost or to signals the managers about private information Watts and Zimmerman (1986). Other than the accounting choices earnings management extend to cover the manipulations. Although earnings management are not involved in the accounting choices and the term earnings management is beyond the accounting choice, with the phenomenon of earnings manipulation the goals to achieve accounting choice are consistent for the implication of accounting choices Field et al. (2001). Dechow and Skinner (2000) did not agree on the above-mentioned definition of earnings management and they criticize it and said that there is not clear difference between manipulation of earnings and fraud. According to them the definition of fraud is as the omission of the facts of the material, the intention, misstatement, deliberate or the data of accounting which is ambiguous and made

available with all the information when considered and will make the reader to amend or vary his choice or judgment. They suggested that there is only one fine line difference between them which is shown in the Figure 1.

Activities of earnings management have a wide range of varieties and they cannot always be easily classified. From complete legitimacy to very conservative accounting there is a continuum that ranges which at one extreme fraud at the other. It is difficult to differentiate in case of aggressive accounting choices between the legitimate exercise and opportunistic earnings management of accounting discretion without the managerial incentives that are identifying to manage earnings Dechow and Skinner (2000).

<p>“Aggressive accounting”</p>	<p><b>Within GAAP</b></p> <p>For bad debts, Understatement of the provision</p> <p>In an early overly aggressive manner drawing down reserves or provisions</p>
<p>“Conservative Accounting”</p>	<p>Overly aggressive identification of reserves or provision</p> <p>Overly valuating in purchase acquisitions of acquired in-process R&amp;D</p> <p>Overstatement of asset write-offs and restructuring charges</p>
<p>“Neutral Accounting”</p>	<p>Earnings that result from the process of a neutral operation</p>
<p>“Fraudulent Accounting”</p>	<p><b>Violates GAAP</b></p> <p>Before the sale become realistic, recording of the sale</p> <p>Recording of the fictitious sales</p> <p>The sales invoices backdating</p> <p>Fictitious recording by overstating inventory</p>

*Figure 1: The distinction between fraudulent financial reporting and earning management*

Above all the mentioned definitions of earnings management, Schipper's definition of earnings management seems to be the wide ranging. Schipper's stresses that the EM is a cautious act and that it involves any type of operation that either through any accounting items or earning numbers can affect the financial reporting and can either be illegitimate (frauds accounting) or illegitimate (within the (GAAP) Generally Accepted Accounting Principle). This manipulation can be committed to meet the objective of shareholders (informative earnings management) or the objectives of management (opportunistic earning management) Schipper (1989). Kaplan (2001) states that, if by the financial statement users, the earnings management is considered unethical then companies credibility may be damaged in the financial markets and the companies and managers reputations may suffer. Subramanyam (1996) examines the earnings management that whether it is smoothing opportunistic behavior but not when to improve the earning predictability and persistence managerial discretion is used. From the above stated definition another point is drawn that earnings management not only impact on the other accounting numbers, but it can directly connect with the reported earnings. Thus, earnings management instead of earnings may for instance aim the financial ratios and could occur in supplementary disclosures. From this definition it can be drawn that earnings management can impact on other accounting number because it is not only directly connected with reported earnings. Thus, earnings management may for instance instead of earnings, target financial ratios and could occur in supplementary disclosures Subramanaym (1996).

To some extent, firms can also change the expenses by and the timing of the revenues recognition for example, through the sale of credit advancing the recognition of sales revenues or waiting to establish the reserve loss by delaying the losses of recognition. Within the definition of earnings management other judgments which can come comprise estimate

of, for instance, the impairments of assets and the economic lifetime of assets Habbash (2010).

Many theories explained the EM practice, earning according to theory of signaling, during certain period or not whether the firm engaged in the activities of value adding, earning is considered the indicator of the capital market to test Wawero and Riro (2013). According to the theory of stakeholders that earnings might manipulate by the managers to increase their personal interests and benefits the expenses of stakeholders and additionally to the remaining shareholders Prior, Surroca and Tribo (2008). The famous third theory is the theory of agency that explains the problem of agency that is due to the management (agent) acting in their own benefit and on the expenses of the principal shareholders/owners in an opportunistic manner Jensen and Meckling (1976). At the beginnings of 21<sup>st</sup> century across United States and Europe a series of scandals of the corporate has been witnessed and this consists of many examples such as Xerox, Enron and WorldCom. It was found that the wonder of earnings management was the core of these corporate scandals Goncharov (2005).

It has been observed that the Generally Accepted Accounting Principles (GAAP) adheres by EM practice adheres with so within the bounds the practice falls of accepted manipulations in the procedures of accounting and from frauds this differentiates earnings management as no violation for the rules took place, however inaccurate information related to the company leads by this practice Rahman and Ali (2006). For keeping the business running, managers always aim to secure all the funds that is needed so that they can gain whatever benefits they want to get from the business and no external party can interfere the business Kim and Yoon (2009). Uwuigbe, Peter and Oyeniya (2015) argued that for the stakeholders the earnings of accounting are of great importance and based on the given facts it is based on many problems and in the process of accounting it's the end product and by the

acts of managers to keep trying practicing EM and the stockholders doubt the reliability and credibility of reports i.e. financial reports.

In many ways firm size varies, and it is important to consider that how quality of the reported info is effected by size. The information that is based on asymmetry theory which was argued by Meek, Rao & Skousen (2007) that as large firms have strong control and governance, so they have lower information asymmetry which results in the decrease of the earnings manipulation practices. While according to the theory of agency, means of more opportunistic practice has been witness in larger size firm that have greater costs of agency Jensen and Meckling (1976).

Compared to small size firms, large sized firms may have highly competent internal auditors and may have stronger internal system of control therefore, in disclosing the trustworthy financial info to the public; an internal control system is effective in helping it so this will likely decrease the ability of management to practice earnings manipulation. Reputation cost is the third reason, in smaller firms the reputation cost is lower and in larger firms the reputation cost is higher as larger firms have better understanding of their businesses, better obligation of the atmosphere of market and better authority over their operations as compared to the smaller firms therefore this may avoid larger firms in involving in EM practice, Ahmad et al. (2014). Larger firms on the other sides face more pressure from the expectations of analysts. More bargaining power in larger firms was observed with the auditors, so larger the firms, and the more the bargaining power with the auditors Barton & Simko (2002).

The reporting which is highly appreciated by stakeholders and investors are the high-quality financial reporting and one of them is as state in their research which is the reduction in the information of irregularity problem Jensen and Meckling (1976). In addition, it gives

better reflection of the company and provides the users with more reliable information which is helpful for them to take decisions Wawero and Riro (2013). Moreover, the reporting of high-quality reporting helps in executing high quality results in contract and in boosting the transparency level Watts and Zimmerman (1978). At last in 2005 the International Chamber of Commerce makes it clear that the investors level of confidence and the efficiency of market are enhanced when the information of the reporting is of high-quality and reliable in the sense of understandability, consistency and comparability Bassiouny et al. (2016).

Rather than cash flow from the application of accrual base the rise of earnings management comes to manipulate the financial information that make it easy for the management as accruals are less observable Chen et al. (2014). The accounting that is accrual-based results in the division of the total accruals into discretionary and non-discretionary components. The discretionary accruals that are to be reported by the management are the proportion of the accruals Gul et al. (2003). This specifies that managers can control the expenses recognition and the timing of revenue by using accrual accounting managers and thus for a given period of time can manipulate the earnings of the firm Shah et al. (2009).

## **1.2 Earnings Management Incentives**

Healy and Wahlen (1999) argued that it is remarkably hard to compile EM convincingly in spite of the current wisdom that EM exists. According to them, they recommend that to manage earnings the manager's incentives which are likely to be strong in which conditions the analysts should first identify them and then the tests are performed to check whether the patterns of unexpected accruals with these incentives are consistent. In previous literature and studies many different incentives of earnings management have been examined but according to Healy and Wahlen (1999) they have identified four main type of



earnings management incentives namely, management compensation contracts incentives, political and regulatory requirements incentives, capital/stock market incentives and debt contracts incentives.

### **1.2.1. Stock Market Incentives**

The things which can indeed push management towards earnings management are the interaction between the prices of stock and reported earnings. Kim and Yi (2006) found that the discretionary accruals of privately held firms and publicly traded firms was compared and it is found that the publicly traded firms are higher than that of privately held firms by an amount of 1.2 % of insulated total assets. This result supports that to engage in earnings manipulation the notion that stock markets have to create incentives for the public firms. Typically, four main issues are concerned in the previous investigations of capital market incentives which are;

- 1) To meet the expectations of participants of the stock market, incentives for the managers.
- 2) To manipulate earnings before seasoned or initial public equity offerings, incentives for the managers.
- 3) Evidences on the consequences of earnings management on the stock/capital market.
- 4) Tests of investors to check whether they are deceived by the earnings management Kim and Yi (2006).

The most important thing for the firms is meeting the expectations of analysts even when it is felt likely that beat or meets the expectations that generate the higher returns which is attained through earnings manipulation Bartov and Mohanram (2004). On the other

side, the negative implication for the stock returns has considerable which leads the two missing an earnings benchmark. Thus, beating and meeting the expectations of analysts is considered highly important forecasts to attract the potential investors and to engage in earnings management that may encourage the companies Matsunaga and Park (2001).

### **1.2.2. Management Compensation Contracts Incentives**

In management compensation contracts incentives of opportunistic behavior may be even more likely when managers from the financial performance of firms also gain financial benefits. Therefore, in order to align shareholders and to reduce the costs of agency it is argued that with the interests of the objectives of managers, the managers will go for bonding and monitoring contracts which will help to meet the shareholder's and manager's interests. The example of such type of contract is the compensation plan of management in which part of the management reward is tied to its reported earnings Leuz et al. (2003). In this regard, the covenant conditions of the compensation contracts are established by usually using the accounting numbers and to check whether these conditions are breached or not. Watts and Zimmerman (1986) argued that in firms the managers with the contracts of compensation based on earnings have the incentives to report earnings results that maximize their awards bonus value.

### **1.2.3. Debt Contracts Incentives**

There can also be a conflict between the debt holders and the interests of shareholders in addition to the possible conflicts between the managers and the interests of shareholders; decisions that considered the interests of shareholders; for example, the payments that are excessive dividend, may not be included in the interests of debt holders. To limit the ability of management the main purpose of the management compensation contracts is to benefits

the investors over creditors. Therefore, to limit the potential conflict between debt holders and shareholders the debt contracts often contain covenants of restrictive. The ability of the management to pay issue new or dividend debt is restricted by these covenants normally and if minimum accounting numbers are not achieved, give the right to the debt holders to demand the repayment early of the debt issue Kasanen et al. (1996). Duke and Hunt (1990) examined debt covenants for a randomized sample of firms which is 187 in number and it was reported that 18% firms have a stockholders' equity covenant, half of the firm sample have a dividend covenant, and 28% firms have a debt-equity ratio covenant and approximately one third of the firm have a working capital covenant. Therefore, from this it was suggested that in debt contracts using dividend covenants bondholders believe that managers will not cut dividends without this covenant to protect bondholder's interests.

#### **1.2.4. Political and Regulatory Requirements Incentives**

In order to influence the decisions and opinions of shareholders, in addition to earnings management, in response to other response of shareholders concerns managers can also manage reported earnings. Governmental and banking regulations that are based on tax laws and accounting numbers for earnings management may be considered as possible sources of motives. On firms' possible regulatory rules can put force that would make them more prone to the practice of earnings management. For example, Haw et al. (2005) in China investigate the income-increase earnings management as a response of the regulations of government that demanding for the firms a minimum of 10% ROE (Return on Equity) that want to offer issue or share bonds and for the practice of earnings management find a strong motivation. The evidence is that to reduce the labor renegotiation costs firms are using earnings management D'Souza et al. (2001). In addition, Han and Wang (1998) provide the proof that during the Gulf War the oil companies use income-decreasing accounting policies to avoid the political complications from increased retail prices of showing a higher profit.

### **1.3. Corporate Governance**

Corporate Governance (henceforth CG) as “the association between all the corporate stakeholders and the corporate Poroy et al. (2008). La Porta et al. (1997) defined as a “set of mechanisms through which the investors which are from outside can protect themselves against the expropriation from the inside investors. Initially CG given the separation between control and ownership and appeared to minimize the conflict of interest between the shareholders and the management. Internal monitoring mechanisms indicated by agency framework that maximum shareholder’s wealth that assist to confirm the directors carry out the policies, where these mechanisms include separation of chairman, the proportion of directors on the boards which are non-executive, the establishment of board sub-committees and the chief executive post, Baydoun et al. (2012). Duality takes place according to many authors when the CEO and the chairman of the board roles are combined Weir and Laing (2001). The responsibility of the chairman of the board is managing the board. However, the responsibility of the CEO including the decisions of enforcement board and day-to-day management of the firm. Therefore, where the duality has seen in firms, they may have individuals which are very powerful who has the decisions making ability that may not maximize the wealth of shareholders. Subsequently, the roles of CEO and the chairman should be separated. Furthermore, it is considered from the stewardship theory that the duality of the CEO instead of weakening its monitoring roles as well as from the management the independence of the board could enhance a strong and unified leadership Ahmed Sheikh et al. (2013).

For the external auditing the financial statements of the firm are the responsibility of the audit committee. It is expected that the investors in the value of firm’s financial statement will gain more confidence and to improve the performance the board will be motivated due to the audit committees’ monitor of the board performance and the existence of remuneration

Laing & Weir (1999). Ruigrok et al. (2006) it is expected that the nomination committee presence is expected to improve the financial statements quality through confirming that each nominated director has the required experience and skills. Moreover, it is suggested by Adams (2000) that an important mechanism through which the performance and the effectiveness of the board to their duties which includes overseeing the managers behavior which ensured by the frequency of board meetings.

### **1.3.1. The Relation Between Corporate Governance and Earnings Management**

The activities and decisions of managers can directly affect by the board governance and can influence internal control mechanisms, controlling, hiring, choosing and controlling external auditors through the audit committee. To monitoring the opportunistic earnings management, the internal control mechanisms can use by the better board governance Carcello et al. (2006). In the previous review of literature, it has documented that how the independence of board can constrain the earnings management, due to the directors who are independent, they do not pursue self-interests such as delude investors, the executive compensation and the deceitful assets to achieve the personal objectives Dechow and Dichev (2002). It is debated by Williamson (1981) that to maintain the interests of investors to oversight the managerial activities the independence of the board is necessary. Roe (1991) pointed out that the abuse power of managers can prohibit by the independence of board. Similarly, it was observed by Beasley (1996) that the probability of opportunistic behavior of managers could decrease by the involvement of the large amount of the directors on the board which are outsiders.

An opportunity may provide for the managers by the weak structure of CG to be involved in the act that would finally result in a low quality of disclosed earnings which is in business ethics a solid sign of serious decay Jesus and Emma (2013). By various theories,

a theoretical association between earnings manipulation and CG was demonstrated which was as follows; a negative relationship between earnings manipulation and CG posits by the agency theory Jensen and Meckling (1976). Prior researchers have documented that the role of earnings manipulation influenced by the role of CG which is noteworthy in this sense that the earnings management practices limits by a high quality of CG. It was reported by Liu and Lu (2007) that the agency problems mitigate by good CG, especially the conflict between the minority shareholders and the largest shareholders. In some other words, lower levels of earnings management were observed in those firms who have higher levels of CG. Ali et al. (2009) also stated that there is a direct association between the earnings manipulation and CG.

It was reported by Ghosh et al. (2010) that manipulation of earnings does not changes with ownership, composition, expertise, structure or with the audit committee composition of board. In contrary the earnings management was associated with tenure, size, activity and audit committee size of the board. It is point out by Agrawal and Chadha (2005) that the expertise of audit can prevent manipulating earnings and fraud, which are measures affecting the EM. It is find out that earnings are only positive when there was a positive and significant association between earnings manipulation and cash compensations Gaver and Gaver (1998). It was assumed by Fama and Jensen (1983) that both the ownership structure and the role of the board of directors in overseeing the managerial activities are crucial as they have the capability to reduce the cost of the agency which results from the management interests and the alignment of ownership

#### **1.4. Problem Statement**

A number of corporate accounting scandals were observed at the beginning of the 21st century throughout Europe and the United States such as Enron and World Com etc.

The reason behind these scandals was found to be the phenomena of manipulation of earnings, Bassiouny et al. (2016).

Prior researchers had recognized that the effect of the role of corporate governance on earnings management is notable with a view that good governance quality restrict earning management practice as, Lin and Hwang (2010) argued that a good corporate governance system helps in ensuring that the management is properly utilizing the resources of the firm in the best favor of the firm owners, apparently report the financial situation and operating performance of the firm at a specific time. Therefore, corporate governance manages the utilization of shareholders resources best way possible, hence increasing the shareholder's wealth.

But in Pakistan, the situation is different as Shah et al. (2009) examined the association of corporate governance with earnings manipulation and concluded a positive relationship between corporate governance and earnings management. While in contrast, Ilyas et al. (2018) concluded an inverse association between corporate governance and earnings management, which means that manipulation of earnings can be lowered by strong corporate governance. So, the results of the previous researcher are not clear about this relationship. Therefore, the problem still exists. Hence, the objective of this research is to examine this issue in Pakistan.

### **1.5. Objective of the Study**

1. To examine the relationship between firm size and earnings management.
2. To examine the relationship between financial leverage and earnings management.
3. To examine the relationship between firm age and earnings management.
4. To examine the relationship between audit quality and earnings management.
5. To examine the relationship between governance quality and earnings management.

## **1.6. Significance of The Study**

A lot of prior literature studied the determinants of earnings management but limited studies are done to examine the impact of firm characteristics and governance quality on earnings management generally and especially in the developing nations like Pakistan. The results of this study give an indication and might be a guidance for the stakeholders of the firms that are listed on Pakistan Stock Exchange (PSX) before taking any decisions.

The findings of this study are of great importance for future researchers who want to conduct further studies in the same area in Pakistan equity market. Generally speaking, the findings are also significant for financiers in developing markets and for other stakeholders as well because they are also dependent on the reported financial facts and figures to take investment and other decisions.

## **1.7. Research Questions**

In line with the above discussion, the main research questions of this study are as follows:

1. Is there any relationship between firm size and earnings management?
2. Is there any relationship between financial leverage and earnings management?
3. Is there any relationship between firm age and earnings management?
4. Is there any relationship between audit quality and earnings management?
5. Is there any relationship between governance quality and earnings management?

In light of the prior discussion, this research will observe the proposed research question using the Pakistani environment.



## CHAPTER 2

### LITERATURE REVIEW

#### 2.1. Literature Related To Corporate Governance and Earning Management

The literature on CG and management of earnings is considerable and relates to many theories. The purpose of this chapter is to provide a review of CG and earnings management literature that is relevant to the focus of this study.

Abbadi et al. (2016) studied the linkage between corporate governance quality and earnings management. Therefore, they obtained information for a duration of 5 years i.e. from 2009 to 2013. Furthermore, the sample size of the study consisted of industrial and also service firms that were registered on Aman Stock market. A whole number of the firms that were registered on Aman stock market at that time was 132. Due to the unavailability of financial data, the study excluded 11 firms from the sample. Cross-sectional modified Jones model of (1991) and Dechow et al. (1995) models were used for the purpose to calculate the discretionary accrual. EM was used as the dependent variable in the study. Moreover, EM was proxy by discretionary accrual. Furthermore, the study used governance quality as the independent variable. The study also used some control variables as well. Firm size, firm leverage, sales growth and return on assets were used as control variables in their study. Finally, the study found a negative influence of CG quality on earning manipulation. Regarding control variables, their study revealed that larger firms were less expected to involve in earning manipulations. In contrast, the study showed that those firms that have high ROA were also less expected to use discretionary accruals. The

study found a significant positive relationship between financial leverage and the management of earnings. Furthermore, the results of the study revealed that sales growth was insignificantly associated with EM. Because of the negative association between governance quality and EM. They recommended the firms that were listed on the Aman stock market to improve their compliance with CG standards connected to nomination and compensation committees, the board of directors, board meetings and audit.

Azzoz and Khamees (2016) investigated the impacts of CG mechanisms on earning quality and earning manipulation in Jordan. CG mechanism was used as an independent variable of the study. CG mechanisms were measured by board size, CEO duality, board composition, audit committee size, audit committee composition, and audit committee activity. On the other side, earning quality and management of earning were dependent variables of the study. Discretionary accrual was used as a substitute for management of earning and for earning quality. Modified Jones model was used in the study for the purpose to calculate discretionary accrual. They gathered information on financial firms that were registered on Aman Stock market at that time. The financial firms that were registered at that time on the Aman stock market were 73 firms. The time period of data collection for their study was 6 years. Time period was from 2007 to 2012. After the analysis, they concluded that audit committee size and audit committee activity had an association with both earning quality and with the manipulation of earnings. Furthermore, their study found a positive association among the size of the audit committee and earning manipulation. The positive association between audit committee size and EM indicated that the number of directors on the audit committee is a serious issue in increasing the earnings quality levels and also in finding out earnings manipulations. The study recommended that, those firms that were registered on Aman stock market to decrease the members of the board of

directors for the purpose to settle the percentage of outside directors. It was also done for the non-executive directors in the board and audit committee as well.

Shah et al. (2009) investigated the association between board composition and earning manipulations. Therefore, their study collected data from 2003 to 2007. The population of the study consisted of 654 firms that were registered on the Karachi Stock Exchange (KSE). They obtained data from 120 firms that were registered at different sectors of KSE. Based on criteria, they excluded firms having different capital structure and because of unavailability of data. Data was obtained from state bank of Pakistan and balance sheet analysis (BSA). Annual reports of firms and firm's web sites were also used as a source for data collection. Board composition was independent variable of their study. The substitutes used to measure board composition were board independence and institutional ownership. In contrast, dependent variable of their study was EM. Their study used discretionary accrual as a substitute for detecting earning manipulations. Moreover, modified Jones model was used to detect discretionary accrual. The study included some moderating variables as well. Moderating variables were firm size and return on equity. At the end, after the analysis, the study found negative association between institutional ownership and discretionary accrual. Moreover, they stated that independence of the board does not have any association with discretionary accruals. The study showed no association of firm size and return on equity with earning manipulations.

Rahman and Ali (2006) investigated the effectiveness of monitoring function of a firm's board, concentrated ownership and audit committee in reducing earning manipulation. The sample size of their study was consisted of 97 firms that were listed at that time on the stock exchange of Bursa Malaysia. Utility firms were omitted from their study due to highly regulated by the government and adopt different opportunities as well as incentives to manipulate earnings. Some firms were also omitted due to unavailability of

data. The board of director's related data and data related to the audit committee were obtained from financial reports. Financial data for their study was obtained by using DataStream. The data which was not available on DataStream at that time, was obtained from the financial reports of the firms. EM was considered as dependent variable of the study. Furthermore, EM was proxied by abnormal working capital accrual. They used Modified Jones model was for the purpose to calculate Discretionary Accrual. At the end, they concluded that board size is positively related with earnings manipulation. The findings of their study supported the view that large sized boards appeared to be unsuccessful in monitoring duties as compared to the small sized boards. A good clarification of insignificant association among other CG techniques like board independence and committee of audit with earning manipulations was that board of directors was seen as inefficient in performing their foreseeing duties because of management's control on the board issues. The study also concluded that culture had no impact in reducing EM.

Kao and Chen (2004) explored the effect of attributes of the board on earnings manipulation. They argued that firm's management may involve in earnings management practices for his personnel benefit. On the other hand, good quality of CG techniques enables board of a firm to look after. Earnings manipulation was used as dependent variable in their study. Furthermore, earnings manipulation was proxied by discretionary accruals. On the other hand, independent variable of the study was board characteristics. Board characteristics were consisted of board size, calculated by entire number of members of board. Ownership of board of directors of the firm was calculated by proportion of firm shares retained by board members. The third characteristic of the board was external board size, calculated as the proportion of external directors in the board. The fourth characteristic was ownership of the external directors, calculated as the ownership of the external directors in the firm. After the analysis, at the end, their study resulted in a positive association

between larger boards and earning manipulations. Furthermore, their study indicated inverse association of the board which were consisted of more outside directors with earnings manipulation. Their study also showed that the impacts of the features of board on earning manipulation practices were important only for group association firms or for non-electronics firms.

Waweru and Riro (2013) examined the association among firm characteristics, CG and earnings manipulation in an emerging economy. To examine the association among firm characteristics, they used CG and earning manipulation. They used structure of ownership, Audit Committee independence, composition of board, performance, and size and leverage level of the firm as explanatory variables. Furthermore, earnings management was used as dependent variable. The study collected the data from the financial reports of 37 firms that were registered on Nairobi stock market. On the other hand, the NSE had 52 firms. The availability of data was for just 37 out of 52 firms. This was needed to calculate discretionary accrual. The study obtained information for the period of 5 years i.e. from 2006 to 2010. They found that structure of the ownership had significant connection with earnings manipulation. Their results also indicated that board composition of the firm has a significant association with earning manipulation. The results indicated that firms with greater number of independent directors having fewer chance of involving in earning manipulation. The results also showed that firm leverage have a significant association with earning manipulation. In contrast, they argued that independence of audit committee was not found to have significant association with EM. The study found that firm size and firm performance were not significantly associated to earning manipulation practices. The entire findings showed that CG play very major role in improving the reporting quality in Kenya.

Bulle (2013) studied the effect of CG on earning manipulations of the firms that were registered on Nairobi Securities Exchange in Kenya. For this purpose the study used CG as

independent variable. The variables related to CG that were used in his study were size of the board, board independence, audit committee independence and CEO shares. In the study earnings manipulation was used as dependent variable in their study. In the said study earnings manipulation was proxied by discretionary accruals. Sample size of the study was 30 firms that were selected from listed firms at Nairobi Stock Exchange in Kenya. The time period for data collection of the study was 4 years i.e. from 2009 to 2013. The regression analysis was used for the purpose to analyze the data. After the analysis, the study found that board size is significantly associated with earning manipulations. Their study showed a significant inverse association between board independence and earning manipulations. The study showed insignificant inverse relation between audit committee independence and earnings manipulations. The study resulted in a negative significant link between firm size and earnings manipulation. Moreover, their study found insignificant positive association between CEO shares and earnings manipulation. Their study concluded that CG and earnings manipulation was negatively related to each other.

Habbash (2010) researched the effectiveness of CG and outer review on constraining profit control rehearses in UK. The autonomous factors of his examination were CG and outside review. The qualities identified with CG were sorted out in four classifications and that were, board structure, review advisory group adequacy, Commitment of non-official chiefs (NEDs) and possession fixation. Outcast review highlights were incorporated freedom of the examiner and nature of review. On the opposite side, income control was utilized as free factor in his examination. Income Manipulations was proxied by optional accumulations. Test size of the investigation was comprised of 350 firms that were recorded at London securities exchange. A few firms were overlooked from the example of his investigation. The prohibited firms were budgetary firms, mining and directed ventures. Firms were precluded as a result of contrast in bookkeeping strategies. Time period for

information accumulation of their examination was four years for example from 2003 to 2006. Toward the end, after the total examination, the investigation discovered negative critical relationship among board measure and gaining controls. Moreover, the linkage of board autonomy, review advisory group freedom and capability of review council, designation panel autonomy, and administrator freedom, dimensions of the non-official executive's impetuses, freedom and aptitude of outcast evaluator all are conversely identified with acquiring control at the dimensions of importance.

Jamaludin et al. (2015) studied the linkage between board structure and earning manipulation in Malaysian government linked firms. There were 33 government registered companies that were registered in Bursa Malaysia at that time. The study excluded financial firms from the sample because of different accounting methods. The sample size of their study was 26 firms. The required data was obtained from the annual reports of those firms. Furthermore, the required data for the calculation of discretionary accruals was obtained for their study from the DataStream Thompson Reuters. The time period for data collection for the study was six years i.e. 2005 to 2010. The dependent variable of their study was earning manipulations. Discretionary accrual was used as an alternative for earning manipulation. Furthermore, to calculate discretionary accruals their study adopted Kothari's model. On the other side, the independent variable used in their study was board independence, calculated by the proportion of independent directors in the board. Second independent variable used in the study was board size which was calculated by the total amount of the board of directors. The third independent variable was Cross directorship, calculated as the Proportion of multiple directorship and the fourth independent variable of their study was senior government officers, calculated as the Percentage of senior government officers in the board of the firm. Multiple regression model was used in the study for the purpose to

test hypothesis of the study. At the end, the study found significant relationship between compositions of boards of directors concerning earning manipulation.

Liu (2011) explored the relationship between board administration and gaining control of Chinese recorded firms. Test size of his investigation was comprised of 93 firms that were enrolled on Shanghai Stock Exchange (SSE) around then. The investigation barred every money related firm and furthermore protection industry from the example of the examination. Budgetary and protection firms were overlooked because of distinction in bookkeeping standards and ideas. The organizations with inadequate money related information from 2001 to 2009 were likewise precluded from test size of his investigation. Moreover, time allotment for information accumulation of his examination was 9 years for example from 2001 to 2009. The reliant variable of the examination was income the board. The intermediary utilized for the reason to quantify income the board was optional gatherings. Then again, board administration was free factor of the examination. The factors identified with board administration utilized in the examination were board measure, board freedom, CEO duality and executive gatherings. After complete investigation, the examination found that income control for Chinese recorded firms was decidedly related to size of the board, which implies that a littler board is increasingly proficient when contrasted with bigger board, and will force progressively successful limitations on profit controls. On the opposite side, income control rehearses for Chinese recorded firms were contrarily connected with autonomy of the board which implies that more quantities of the free executives in the association's board will lessen odds of profit the board rehearses. Profit control was conversely related to the part up of the obligations of CEO and board seats, which implies that the detachment of obligations of CEO and board seats will diminish the dimension of income control rehearses in Chinese recorded firms.



Uwuigbe et al. (2014) inspected the impact of CG strategies on of gaining control of Nigerian recorded firms. For this reason, they utilized income the board as reliant variable of the examination. They intermediary that was utilized to gauge income the executives was optional gatherings. To recognize profit control their investigation utilized adjusted jones model. The autonomous variable of their examination was CG. The CG related factors that were embraced in their investigation were board estimate and is determined by the entire number of chiefs of the company's board, freedom of the board, spoke to the extent of non-official executives to add up to board piece and CEO duality determined as 1 if the CEO of the firm fills in as a director too, and on the off chance that not, at that point 0. A control variable that was size of the firm was additionally incorporated into their investigation. Size of firm was determined by regular log of all out resources. The example size of their investigation was 40 firms. The timespan for information gathering of the examination was 5 years for example from 2007 to 2011. The judgmental inspecting method was utilized in their examination. For the reason to accomplish the objective of their examination they utilized money related reports as a hotspot for information accumulation. To test the theory of the investigation they utilized customary least square (OLS). After the total investigation, their examination uncovered that board size and board autonomy have a critical opposite impact on gaining control. On the opposite side, they found that CEO duality had significant positive impact on acquiring control rehearses for the tested firms. From now on their examination came about that organizations having more prominent sheets and shifted data are increasingly expected to be progressively employable in controlling income control when contrasted with little size sheets then they are required to have more quantities of autonomous executives with more noteworthy corporate or money related learning.

Saftiana et al. (2017) investigated the linkage between CG quality, firm size and earnings manipulation in Indonesian stock market. To investigate the association the study

used earnings manipulations as dependent variable. Earnings manipulation was proxied by discretionary accruals. On other side, the independent variables of the study were institutional ownership, managerial ownerships, board meetings, and audit committee meetings. They included some moderating variables as well. The moderating variables were, firm size and leverage of the firm. The time period for data collection of the study was 5 years i.e. 2010 to 2014. On the other hand, the sample size of the study was 21 firms. The sample of the study was selected by purposive sampling technique. They used regression analysis was in order to check hypothesis of the study. At the end after the complete analysis, the study found that financial leverage of sampled firms was significantly affected on earnings management practices. While the effect of other variables that were institutional ownership, managerial ownership, board meetings of the firm, frequency of audit committee meetings and firm size were not significantly influenced on earnings management practices.

Abata and Migiro (2016) contemplated the effect of factors identified with CG on procuring control. In their investigation quantitative methodologies were utilized for the reason to check the relationship among free and ward variable of the examination. The reliant variable of their investigation was the board of gaining. Moreover, profit the board is proxied by optional collection. The strategy that was utilized to recognize winning control was adjusted Jones model (1991). On opposite side, the autonomous variable of their examination were, proprietorship structure, board arrangement, review council autonomy, firm execution, company's size and the last one was firm money related influence. Size of board was discover as the general measure of executives ready. Besides, board freedom was determined by the level of non-official executives to add up to chiefs. Freedom of review board of trustees was determined by the extent of non-official review panel members to the whole measure of review advisory group members. Review advisory group estimate was determined by the general measure of review board of trustee's members. Review quality

was determined by the arrangement of a major 4 review firms. Possession structure was determined by the extent of offers held by five key partners to generally stockholdings. Hardly any control factors were engaged with their investigation. The control factors of their investigation were firm money related influence, size of the firm, and association's development. The number of inhabitants in the investigation was comprising of 63 firms. The example size of the investigation was comprising of 24 recorded firms from 2 segments. The timeframe for information accumulation of the investigation was 6 years for example from 2008 to 2013. Toward the end, after complete examination, by utilizing the board information investigation approach, the investigation found that, board freedom, review panel autonomy and review council measure were irrelevantly emphatically related with income control. The board estimate was irrelevantly and conversely identified with income control. Possession structure was irrelevantly contrarily related with profit control. The nature of review was likewise emphatically related with optional gatherings anyway the outcome was not huge as per insights. As indicated by aftereffects of their investigation, it was reasoned that no linkage among CG and acquiring control in the chose firms.

Ilyas et al. (2018) analyzed the effects of CG on gaining control in Pakistan. They gathered information for the timespan 10 years for example from 2007 to 2016. The number of inhabitants in their investigation was comprising of all non-budgetary organizations that were enrolled on Pakistan stock trade (PSX). They acquired information of 144 non-budgetary firms. A few firms are disposed of from their examination. The organizations were wiped out due to the non-accessibility of budgetary information. The information for the investigation was gotten from money related exposures of those organizations. Money related reports are gotten from the association's sites and open entryways sites. They utilized univariate examination and multivariate investigation systems. Moreover, the information they use in their examination was optional. The autonomous variable of the examination

was CG. The needy variable of their investigation was income controls. The intermediary that was utilized to quantify profit the board was optional accumulations. Some directing factors are likewise incorporated into their examination. The directing factors were firm size, monetary influence, capital use return on value and working income. Firm size was determined by the log of the general resources, money related influence was determined by all out obligation isolated by all out resources, capital consumption was determined by capital use separate by absolute resources, return on value was estimated by net gain partition by complete resources, and working income was determined by working income partition by all out resources. At long last, after complete examination, they found that profit the executives practices can be decreased by an intense CG framework. The consequences of their investigation likewise reasoned that an extreme watching framework help to create investors 'confirmation on the Investment Markets at last noticeable to solid monetary framework.

Murhadi (2009) investigated the effects of good CG on earnings manipulation. For this purpose, he obtained data for 3 years i.e. from 2005 to 2007. The population of his research was consisting of all manufacturing firms that were listed in Indonesian Stock Exchange. On the other hand, the sample size of the study was 128 firms. The dependent variable of his study was earnings management. The proxy that was used for detecting earnings management was discretionary accruals. On the other side the independent variable of the research was CG. The study used ordinary least square method for the determination of the hypothesis of the study. After the analysis, the study found that earnings management was significantly affected by only two variables from the independent variables and that were CEO Duality and existing of the controlling shareholders. Other independent variables of his study were audit committee, independent commissioner coalition outside the controlling shareholders don't have any impact on earnings manipulation practices. The

study showed no effect of the control variables such as coverage analyst and debt on EM practice.

Muchoki (2013) examined the relation between CG to earning manipulation. To examine this relation the target population of his study was consist of 49 firms that had been actively and continuously trading at the Nairobi security exchange during the period from the 2010 to 2012. For this purpose, he used secondary data in his study. The time period for data collection of the study was 3 years from 2010 to 2012. The collected data was examined by using regression and correlation analysis for the purpose to check relationship between governance system and earning manipulation. Dependent variable of his study was EM. EM was proxied by discretionary accruals. On other side, the independent variable that was used in the study was CG. After analysis, the study concluded that rise in ownership structure will reduce the practice of earnings manipulation. The study showed that rise in board size will also reduce the practices of earnings manipulation. The study showed that rise in board independence will reduce the chances of earnings manipulation practices. The study showed that rise in board activity will rise the chances of the practices of earnings manipulation. The study showed that duality of the CEO will also rise the chances of earnings manipulation practices. Finally, his study concluded that earnings management practices were negatively associated to ownership concentration. The study also concluded, that independence of the board was negatively associated to earnings management practices. The study showed that adding external directors to board of the firm can increase in governance quality and can be cooperative to the firm's board to oversight EM practices which indicates that shareholders will depend on the facts exposed in the financial statements when there are more external directors in the firm's board.

Chekili (2012) studied the impacts of some governance mechanism on EM. For this purpose, the study collected data for the time period from 2000 to 2009. The sample size of

the study was consisted of 20 private and public anonymous Tunisian firms. The data was collected from the published official balance sheets and from the board of the Tunisian security market. The dependent variable that was used in his study was earnings management. Moreover, EM was proxied by discretionary accruals. Furthermore, discretionary accruals were measured by Kothari, Leone and Wesley's model (2005). On the other hand, the independent variables of the study were TCA which means board size. Board size was finding out by the whole amount of board members. Second independent variable was Dual, which means that the functions of CEO and chairman are hold by one person. The variable was calculated as 1 if same person, and otherwise 0. The third independent variable was AM, which mean the proportion of capital detained by majority of stakeholder. The variable was calculated as 1 if the majority shareholder holds at least 50% of capital, and otherwise 0. The fourth independent variables were APD, which means shares held by managers. The APD variable was calculated by the Proportion of shares that was detained by managers. The fifth independent variable of the study was IF, which mean the presence of financial institution within the board. The IF variable was calculated as 1 if there was at least one institution, and otherwise 0. Sixth independent variable was AE which represented the presence of external directors in the firm's board. Variable AE was calculated by the percentage of externals directors to whole numbers of board members. Another independent variable was PDG, which means the presence of a CEO. The variable was measured as 1 if there was a CEO appointed by the state, and otherwise 0. At the end, after the complete analysis, the study found that the existence of external directors, board size and the existence of CEO seem to influence management of earnings. In contrast, board characteristics were found to be neutral.

Bala and Kumai (2015) examined the influences of board features on earning manipulation of food and beverages firms that were listed at that time in Nigeria. The

dependent variable of the study was earnings management. The proxy that was used to calculate management of earnings was discretionary accruals. Furthermore, modified Jones model was used for the purpose to calculate discretionary accruals. Moreover, the independent variable of their study was board characteristics. The board characteristics were proxied by board size, board independence, board meetings, Board financial expertise and women director. A control variable was also included in their study. The control variable used was firm size. Furthermore, population of their study was consisted of all food and beverages firms that were listed in Nigeria as at 31st December, 2014. And the sample size of the study was consisted of eight firms. Some firms were omitted from the sample of the study. The firms were omitted due to inaccessibility of complete records that were required for measurement of the variables. The information needed was obtained from the financial reports of the firms. The time period for data collection of the study were 6 years from 2009 to 2014. Regression analysis was used to examine the model of the study. After complete analysis they found negative association between board size, board meetings and financial proficiency of the board, with earning manipulation of the food and beverages firm that were registered in Nigeria. On other hand, composition of the board and women directorship was positively significantly related with management of earnings.

Abed et al. (2012) studied the linkage between governance mechanism and EM of the firms that were registered on the Aman Stock Exchange, (ASE) at that time. For this purpose, the study collected data for the time period of 4 years i.e. from 2006 to 2009. The total number of registered firms on ASE was 195 at that time. The sample size of the study was consisted of 132 firms. The study excluded financial firms from the sample size of the study because of different account procedure and different capital structure. Some firms with unsatisfactory records were also omitted from study. In addition, the dependent variable of their study was earnings management. Furthermore, EM was proxied by

discretionary accruals. The study used modified Jones model for the purpose to calculate EM. On other side, the independent variables of their study were governance mechanism of the firm. Governance mechanism system were included, the proportion of independent directors in the board, board size, duality of the CEO and insider or concentrated ownership. They included some control variable as well, and the control variables were, firm size, leverage and industry. Firm size was calculated by natural logarithm of the total assets. Leverage was calculated by total debt divided by total assets. Industry was dummy variable, and was measured as 1 if the firm is listed in industry sector and otherwise 0. At the end, after complete analysis the study found significant relationship of only board size with EM. On other side, the relationship of other independent variables with EM was found insignificant.

Sajjad (2017) examined the impacts board features on earnings management of the firm that were registered on Pakistan stock exchange (PSX). For the purpose to examine the association between board features and management of earnings, the study collected the data for 7 years, i.e. from 2008 to 2014. The sample of the study was consisted of 100 non-financial firms that were registered on the PSX. Financial firms were eliminated by his study. The firms were eliminated due to difference in capital structure and to avoid distortion in results due to different financial fundamental. Management of earnings was used as dependent variable of the study. The management of earnings was proxied by discretionary accruals. In addition, his study used modified Jones model for the purpose to calculate discretionary accruals. In contrast, the independent variables of his study were board features. Board features were included, board independence, size of the board, CEO duality, gender diversity and institutional ownership. Board independence was measured by the percentage of non-executive directors in the board. Board size was calculated by whole number of the members of the board. CEO duality was calculated as 1 if the chairman and



firm's CEO are same person and if not then 0. Gender diversity was calculated by the proportion of women's in the board. Institutional ownership was calculated by the proportion of shareholding detained by institutions to whole shareholding. The control variables used in his study were firm size, financial leverage and profitability. Firm size was calculated by the natural logarithm of total assets. Leverage was measured by total debt divided by total assets. Profitability of the firm was calculated by return on assets. Panel data method was used in the study. The study ran Hausman test for the purpose to choose a suitable model for the study. At the end, after complete analysis, the study found negative and significant effect of board independence on management of earnings. In contrast, the impact of CEO duality and institutional ownership on management of earnings was significant and positive. However, his study found insignificant impacts of board size and board diversity on management of earnings.

Susanto (2013) examined the influence of governance system of the firm on EM practices. To investigate the relationship the study collected data for 3 years i.e. from 2009 to 2011. The population of the study was consisted of manufacturing sector of Indonesian Stock market. The sample of his study was consisted of 53 firms from manufacturing sector. The sample selection technique of the study was purposive sampling. The independent variables of the study were, institutional ownership, management ownership, board size, audit committee, independent commissioner, financial leverage, profitability, size of the firm, independence of the auditors, and auditor's reputation. Institutional ownership was calculated by the proportion of the firm shares detained by financial firms or other outsider parties. Management ownership was calculated by the portion of shares detained by management of that firm. In his study managerial ownership was used as dummy variable. Board size was calculated by the whole number of board members. Audit committee size was calculated by the number of audit committee members. Independent commissioner was

calculated by the scale ratio i.e. the proportion of independent directors in the board of commissioner. Financial leverage was calculated by total debt divided by total assets. Profitability was calculated by return on assets. Firm size was calculated by the natural logarithm of the firm's total assets. Auditor reputation was also an independent variable and was calculated as dummy variable. Auditor reputation was calculated as 1 if audited by big four firm and if not then 0. In contrast, the dependent variable used in his study was management of earnings. Furthermore, management of earnings was proxied by discretionary accruals. The study resulted that audit committee size and independent commissioner overseeing firms' management in reporting of firm's performance through firm's financial statement. The firm's which were more dependent on debt or highly leveraged as compare to equity were found to manipulate earnings.

Okougbo and Okike (2015) investigated the association between governance system of the firm and EM. To investigate the association, they collected data for the year 2008 of the non-financial firms that were registered on Nigerian stock market. They used 62 non-financial firms as a sample of their study. The financial firms were omitted due to diverse behavior of the accrual from other sectors. Secondary data was used in their study. The data was obtained from financial report of the sampled firms. They used ordinary least square model for this purpose to test the hypothesis of their study. Management of earnings was used as dependent variable of their study. Moreover, management of earnings was proxied by discretionary accruals. For the purpose to measure discretionary accruals their study used modified Jones cross sectional model for this purpose. On the other hand, the independent variables of their study were board size, chief executive officer duality, and audit committee independence. Moderating variables were also included in his study. Moderating variables were firm size, leverage, firm age, auditor type (big four auditor or

not) and return on assets. At the end, after complete analysis, they found that board size and return on assets have positive association with discretionary accruals.

Dimitropoulos (2011) examined the influence of firm's governance system and EM of the European football industry. To investigate this relationship the study used data for 4 years i.e. from 2006 to 2009. Sample size of his study was consisted of 67 football clubs in which 7 were registered and the rest of the firms were unregistered. The clubs were from 10 European Union Countries included, Belgium, France, Denmark, Germany, Netherland, Italy, Spain, Sweden, UK, and Greece. The initial sample size of his study was 79 firms, but due to the unavailability of data of some clubs he reduced the sample size into 67 clubs. For this purpose, the study used earnings management as a dependent variable of the study. Furthermore, management of earnings was proxied by discretionary accruals. His study used cross sectional Jones model, (1991) for the purpose to calculate discretionary accruals. On the other hand, the independent variables of his study were board independence, board size, administrative ownership, institutional ownership and duality of chief executive officer. Board independence was calculated by the proportion of independent directors in the board of directors of the club. Board size, was calculated by entire number of board members of a club. Administrative ownership was found out by the proportion of shares which was retained by the directors of each football club. Institutional ownership was found out by proportion of shares which were retained by institutional investors. Chief executive officer duality was calculated as 1 if one person holds the chairs of chief executive officer and chairman, and if not then 0. His study also included control variables. The control variables were firm size, Growth, Financial leverage, cash flow from operations, audit quality and DLIST. Firm size was measured by natural logarithm of the total assets. Growth was calculated by annual percentage change in the sales of the club. Financial leverage was calculated by total debt divided by total assets. Cash flow from operations was measured by

percentage of cash flow to lagged total assets. Audit quality was used as a dummy variable in his study, and was measured as 1 if the club auditing firm of the club is among one of the big four audit firm and if not then 0. Last control variable was DLIST. DLIST was measured as 1 one if the club was publically listed and if not listed then 0. To investigate the relationship the study used ordinary least square regression (OLS) for this purpose. At the end, after the analysis, the study found that quality of CG mitigated earnings manipulations by football manager and specially the clubs with higher board independence, institutional ownership, managerial ownership and small size board were related with high quality financial reporting trough deterioration of EM behavior.

Fadzilah (2017) examined the association between board features and EM among Malaysian family owned firms. To investigate this association the study used data for 4 years i.e. from 2009 to 2012. His study focused on family owned firms that were registered on Bursa Malaysian Stock market. Sample of his study was comprised of 184 firms. The data obtained for his study was secondary in nature. The dependent variable of his study was earnings management. The proxy that was used to measure earnings management was discretionary accruals. His study used modified Jones model for the purpose to calculate discretionary accruals. In contrast, the independent variables of his study were board independence, board size, multiple directorships, duality of CEO, and board meetings. Board independence was calculated by percentage of the independent non-executive directors to entire board members. Board size was calculated by the whole number of directors on the board of directors. Multiple directorships were calculated by proportion of directors of the board that sit on the other board to the whole members of the board. Duality of the chief executive officer was measured as 1 if CEO also grips the chair of the chairman, and if not the 0. Numbers of board meetings was calculated by the number of the meetings that were held during the year. Some control variable was also included in his study. The

control variables used were firm size, leverage, return on assets and cash flow from operating activities. He used ordinary least square model, (OLS) for the purpose to test hypothesis of his study. At the end, after the analysis, the study found that meetings of the board and board independence have positive significant association with management of earnings.

Aygun et al. (2014) examined the effects of ownership structure and board size on earnings manipulation of firms that were registered on Istanbul stock market. To investigate this relationship, they used data for 4 years i.e. from 2009 to 2012. Sample size of their study was consisted of 230 non-financial firms. The financial firms such as insurance and banks were omitted from the sample. The dependent variables of their study were earnings management. Furthermore, management of earnings was proxied by discretionary accrual. Moreover, their study used modified Jones model for the purpose to calculate discretionary accruals. In contrast, the independent variables of the study were ownership structure, and the variable was further divided into two variables and that were, institutional ownership and managerial ownership. Another independent variable used in their study was board size. Some moderating variables were also included in their study. The moderating variables were: firm size, leverage and return on assets (ROA). Furthermore, the study used multivariate regression analysis technique for the purpose to test hypothesis of their study. Finally, after complete analysis the study found that, board size and institutional ownership have significant and inverse effects on the EM. In contrast, the effect of managerial ownership on management of earnings was significant and positive. Furthermore, the study also showed significant positive influence of ROA on management of earnings. However, the study found significant inverse influence of leverage on EM.

Iraya et al. (2015) examined the influence of governance mechanism of a firm on EM of the firms which were registered at the Nairobi Stock market at that time. To investigate this relationship the study used time period for the collection of data from 2010 to 2012. the sample size of their study was consisted of 49 firms which were listed on the NSE. Secondary data was used in their study. Moreover, to test the association between governance mechanism and management of earnings their study used linear regression analysis for this purpose. The dependent variable of the study was earnings management. the variable was proxied by discretionary accrual. Modified Jones model was used in their study for the purpose to calculate discretionary accruals. In contrast, the independent variable related to CG were, ownership structure, board size, board independence, board meetings, and CEO duality. At the end after complete analysis, the study found that ownership concentration, board size and board independence were negatively associated to management of earnings. On the other hand, board meetings and duality of CEO were positively associated to EM.

Daghsni et al. (2016) examined the effect of board features on EM of French listed firms. To examine this relationship their study used data for the time period from 2008 to 2012. The sample size of their study was consisted of 70 firms. Financial firms such as banks and insurance firms were omitted from their study. The reliant variable of the examination was EM. EM was proxied by discretionary accrual. Additionally, modified Jones model was utilized in their examination for the reason to figure discretionary accrual. Conversely, autonomous variable utilized in their examination was highlights of the board. Board highlights included, board measure, freedom of board, duality of CEO, and board action. Board measure was determined by the log of whole number of board individuals. Board autonomy was determined by the extent of free executives in the leading group of a firm. Duality of the CEO was utilized as sham variable determined as 1 in the event that one

individual holds the two positions and in the event that not, at that point 0. Board action was assessed by number of executive gatherings. Moreover, some control factors were incorporated into their investigation also. The control variable of the investigation was, firm size, influence, high innovation part and firm execution. Firm size was discovered by common logarithm of absolute resources. Influence was determined by complete obligation partitioned by absolute resources. High innovation segment was sham variable and determined as 1 on the off chance that the firm had a place with high innovation division and on the off chance that not, at that point 0. Execution of the firm was estimated by net benefit to value. Regression analysis was used for the purpose to check the effect of the characteristics of the board on EM. After complete analysis, at the end, they found negative effect of the board size on EM. In contrast, the study found positive association between EM and CEO duality. Their study showed positive association between activity of the board and EM. The results of their study revealed no influence of board independence on management of earnings.

Chelogoi (2017) studied the influence of CG on earning manipulation of the firms that were registered on Nairobi security market. For this purpose, the study used data for the period of 8 years i.e. from 2005 to 2012. The population of the study was 60 firms which were listed on NSE at that time. the size of the sample of his study was consisted of 45 firms. The utilized data of his study was secondary in nature. In order to test the association between earning manipulation and governance mechanism he used multiple regression model in his study. EM was dependent variable of the study. On the other hand, CG was independent variable of the study. At the end, after the analysis, the study found no significant effect of independence of the board on EM. In contrast, the study showed significant inverse effect of CEO duality on EM.

Alves (2012) investigated the association between ownership structure and management of earnings. To study the relationship the study used data from 2002 to 2007. On the other hand, sample size of the study was consisted of 34 non-financial Portuguese firms. The dependent variable of his was Management of Earnings. The proxy used for earnings management was discretionary accruals. While the independent variables of his study were managerial ownership, institutional ownership and ownership structure. Administrative ownership was calculated as the proportion of the shares retained by the management of the firm. Institutional ownership was calculated as 1 if 2 percent of the common stock of the firm is owned by institutional investors, and if not then 0. Ownership structure was calculated by the proportion of the stock retained by those stockholders by whom at least 2 percent of the common stock of the firm is owned. Some moderating variables were also included in his study. Moderating variables were firm size, firm performance, financial leverage, board size and cash flows. Finally, after analysis, the study concluded that managerial ownership and ownership concentration were negatively related to EM.

Sing et al. (2016) examined the influence of CG on earning manipulation of registered firms on Bombay Stock Market. In order to accomplish the aim of their study, the data of 50 firms is used. The sample of their study was collected from 10 different sectors that were listed at Bombay stock market. They collected the data for the time period from 2005 to 2006 and from 2015 to 2016. The dependent variable of their study is earnings manipulation. to detect EM they used discretionary accruals as a proxy. To calculate discretionary accrual, they used modified Jones model. On the other hand, independent variable of their study was CG. Variable related to CG were, board size, number of board meetings, board independence, and audit committee independence. Finally, after the analysis, the study showed inverse association between board size and earning



manipulation. In contrast, the study showed positive relationship between numbers board meeting and earning manipulation. In sector wise analysis their study concluded that the influence of governance in limiting EM was comparatively complex and steady in oil, gas and technological sectors as compared to other sectors.

Roodposhti and Chashmi (2011) investigated the relationship between earning manipulation and CG. For this purpose, their study used data set of 96 firms registered at Tehran stock exchange (TSE). Financial firms were excluded from their investigation in view of deferent income and collections process. Firms with lacking information were additionally overlooked from their examination. They gathered information for span of 5 years for example from 2004 to 2008. The needy variable utilized in their examination was EM. EM was proxied by discretionary accrual. To assess optional gathering, they utilized adjusted Jones model in their investigation. Then again, the free factor of their examination was CG. Factors identified with CG were possession fixation, board autonomy, duality of CEO, and institutional investors. The examination is additionally comprising of some control factors. The control factors were firm size and firm money related influence. The investigation utilized normal impact model for the reason to check the impact of CG on optional accumulations. At the end, the study found significant negative association between ownership concentration and earning manipulation. The association between EM and board independence was also significant and negative. In contrast, the study revealed that CEO duality is significantly positive related to EM. The study also showed significant and positive association between institutional ownership and EM. The study found significant positive association between firm size and leverage on earning manipulation.

Latif and Abdullah (2015) examined the effectiveness of CG on constraining EM. Therefore, they used data from 2003 to 2012. The sample size of their study was consisted of 120 non-financial firms registered on Pakistan stock exchange (PSX). They utilized EM as

needy variable of the examination. In the investigation EM is proxied by discretionary accrual. Independent variable of the investigation was CG. The factors related to CG utilized were autonomy of the board, duality of the CEO, board measure, executive gatherings, review panel estimate, review council freedom, insider proprietorship and institutional possession. Some control factors were additionally contained in their examination. The control factors utilized are budgetary influence, size of the firm and pay of the CEO. At the end, the study found inverse association between earning manipulation and audit committee independence. In contrast, the study showed that CEO duality and institutional ownership were positive related to EM. The study showed no relationship of CEO compensation and financial leverage with earning manipulation. The study found negative relationship between firm size and EM as well.

Razak and Palahuddin (2014) investigated the effectiveness of CG to monitor earnings manipulation in Malaysia. For this purpose, the study used data of 5 years i.e. from 2007 to 2011. Sample size of their study was consisted of 200 non-financial firms. Financial firms were omitted from their study due of different regulatory framework. firms with unsatisfactory data were also omitted from their study. The study used EM as a dependent variable. the proxy used to calculate EM was discretionary accruals. On other hand, independent variables of the study are, CEO duality, proportion of independent non-executive directors and board size. The study included some moderating variables as well. The moderating variables of their study were, return on assets, firm size and operating cash flow. At the end, the study found that board size was negative associated to EM. On other hand, the study showed positive relationship between duality of the CEO and EM. However, the results of the study did not show significant association between earning manipulation and percentage of independent non-executive directors.

Busirin et al. (2015) studied the effectiveness of board independence to monitor earning manipulation. Population of their study was 922 firm. Some firms were omitted from the sample of their study. Firms that were excluded were banks and other financial firms. their study used data of 372 firms that were registered in Malaysia. The data was obtained for the period of 4 years i.e. from 2010 to 2013. Depended variable used in their study was EM. EM was detected by Beneish profit model. In contrast, independent variable of their study was bored independence. Board independence is calculated by the entire number of directors on the board. Finally, after analysis, their study revealed negative linkage of board independence with earning manipulation. The findings of their study indicated that board with a greater number of independent directors will decrease the practices of earning manipulation.

Nahandi et al. (2011) examined the effect of board composition and EM of firms that were registered on Tehran stock market. Therefore, they collected data from 2001 to 2008. Dependent variable used in their study was EM. Moreover, management of earnings was proxied by discretionary accrual. to detect discretionary accrual they used modified Jones model. In contrast, independent variable used in their study was board composition. Board composition was further divided in the following variables: board size, board independence and CEO duality. Board size was calculated by entire number of board members. Board independence was calculated by percentage of non-executive directors in the board. CEO duality was calculated as 1 if chairman and CEO are one person and if not then 0. they used panel data technique in the study. Finally, their study revealed positive association between CEO duality and EM. In contrast, their study showed insignificant association of board size and board independence with EM.

Kankannamage (2015) examined the influence of board composition on EM of Sri Lankan firms. For this purpose, he used data from 2012 to 2015. His study obtained data of

160 firms that were registered on Colombo stock market. Some firms were omitted from the study. Omitted firms were from financial sector. Dependent variable of his study was EM. Management of earning was proxied by discretionary accrual. In contrast, independent variables of his study were board size board composition, board financial expertise and board meeting. Data used in his study was secondary in nature. Data was obtained from financial reports of the firms. To study this association his study used ordinary least square. Finally, after analysis his study showed significant association between board size board composition board financial expertise and board meeting with earning manipulation.

Muda et al. (2018) studied the influence of good governance system on earning manipulation of firms that were registered on Indonesian stock market. Population of their study was 325 firms from manufacturing sector of Indonesian stock market. sample of their study was comprised of 78 firms. Panel data technique was used in their study. Dependent variable of their study was earning manipulation. Earning manipulation was proxied by discretionary accrual. In contrast, independent variable of their study was good governance system. Good governance was measured by board composition and audit committee. The results revealed that good governance system simultaneously influence earning manipulation. Partial results of good governance variables that were board composition and audit committee had no influence on earning manipulation.

Parveen et al. (2016) examined the effect of ownership structure on earning manipulations of banking sector of Pakistan stock market. Banking sector was used as population of their study. Moreover, their study gathered information of 20 firms from banking sector. They gathered information from 2000 to 2012 i.e. for 13 years. Earning manipulations was used as dependent variable in their study. discretionary accrual was used as an alternative for earning manipulations. In contrast, independent variables of their study were ownership concentration and ownership mix. Finally, after analysis their study

revealed that major stock holders, directors, governmental and financial firms inversely influence earning manipulations. On the other side, local ownership, foreign firms and associated institutions were found to have positive association with earning manipulations.

Siam et al. (2014) examined the association between board features and earning manipulation. They gathered information of industrial sector of Aman stock market. Dependent variable used in their study was earning manipulation. Moreover, discretionary accrual was used as an alternative for earning manipulation. In contrast, independent variables of their study were board features. Finally, after analysis the study revealed that board of commissioner are essential part of the firm and accountable for observing the value of material contains in financial reports. their study claimed that board effectiveness reduces earning manipulation.

Ahmed (2013) examined association between board features and earning manipulation. To examine this association his study gathered information for 5 years. Information was gathered from 2001 to 2005. Moreover, his study gathered information of 71 firms. In order to examine this association his study used regression analysis. In addition, dependent variable of his study was management of earning. Discretionary accrual was used as an alternative for management of earning. In addition, modified Jones model was used to detect management of earning. In contrast, independent variable of his study was board features. Finally, after analysis his study revealed that only financial proficiency of board members are positively associated with management of earning.

Obigbemi et al. (2016) examined the effect of board structure on management of earning. Their study gathered information for the period of 8 years. The information was gathered from 2003 to 2010. They gathered information of 137 firms of Nigerian stock market. Moreover, they used simple regression analysis in their study in order to examine

this association. dependent variable of their study was management of earning. In addition, discretionary accrual was used an alternative for management of earning. In contrast, independent variable of their study was board structure. Finally, after analysis they argued that board structure is significantly associated with management of earning. Moreover, the study revealed that board size, gender and board composition are significant and negatively associated with management of earning. In contrast, they argued that the association of board meetings, remuneration committee and duality of chief executive officer with management of earning are positive and significant.

Patrick et al. (2015) examine the effect of governance on management of earning in Nigeria. To examine this association, they gathered information for 4 years. The information was gathered from 2011 to 2014. In addition, they gathered information of 23 firms. To examine this association, they used simple regression analysis in their study. Moreover, dependent variable of their study was management of earning. discretionary accrual was used as an alternative for management of earning. In order to calculate discretionary accrual, they used Jones model. Finally, after analysis their study revealed that board magnitude, firm size, freedom of the board and power of audit committee are significantly associated with management of earning.

Ngamchom (2015) examined the effect of board efficiency and shareholder structure on management of earning in Thailand. His study gathered information for 5 years. The information was gathered from 2009 to 2013. dependent variable of his study was management of earning. In addition, discretionary accrual was used as an alternative for management of earning. In contrast, independent variables of his study were board efficiency and shareholder structure. Finally, after analysis his study concluded that board efficiency reduces earning manipulation which removes agency problem as well. Moreover,

regarding shareholder structure his study concluded that managers increase earning manipulation practices.

## **2.2. Size of the Firm and Earning Management**

Ali et al. (2015) investigated the influence of firm size on EM of the textile sector of Pakistan. For the purpose to examine this relationship, they collected the data of 10 years i.e. from 2004 to 2013. In 2013 there were 153 firms that were listed on the textile sector of Pakistan at that time, and that 153 firms were the population of their study. On the other hand, the sample size of the study was consisted of 50 firms which were selected from 153 firms. The data was obtained from the financial reports of the firms for the time of 10 years. The independent variable of their study was firm size. Firm size was calculated by the natural logarithm of total assets. On other hand, the dependent variable of the study was management of earnings. Management of Earnings was proxied by discretionary accrual. to calculate discretionary accrual they used modified Jones model. To examine this association the study used panel data analysis for this purpose. Finally, after the analysis, the study resulted in significant and positive influence of the size of the firm on earnings manipulations.

Kim et al. (2003) examined the influence of firm size on EM. For this purpose, they obtained the data from 1983 to 2000. The sample size of their study was consisted of all the firms whose financial data were available at that time from compustat database for the period of 18 years. Some firms were omitted from their study. The omitted firms were financial institutions and regulated firms. Financial firms were omitted due to deference in capital structure and intensity of government regulations. EM was used as dependent variable in the study. A proxy was used to detect management of earnings was discretionary accrual. On other hand, the independent variable of the study was size of the firm. Control

variables were also used in their study. Control variables were earnings performance, sales growth, capital intensity, and operating cycles, status of auditor and industry classification. After the complete analysis, at the end, they found that large sized and small sized both firms manage earnings for the purpose to avoid small earnings reductions. However, the study observed that size of the firms plays differing roles in earning manipulation practices. Their study revealed that small size firms involve more management of earnings as compared to large size or medium size firms for the purpose to evade reporting losses. the argued that larger and medium size firms revealed more aggressive earnings manipulation practices to avoid reporting earnings reductions as compared to small firms.

Llukani (2013) investigated the association between EM and firm size in Albanian market. To investigate the relationship the study used 75 firms as a sample of the study. The selection criteria for the sample of the study were: those firms were selected whose financial data were available at that time. Firms with less than three years of activity were also excluded from the sample of the study. financial firms were also omitted from their study. Financial firms were omitted due to different industry characteristics. The time period of data collection of the study was 3 years i.e. from 2009 to 2001. Earnings management was used as dependent variable of the study. EM was proxied by discretionary accrual. to measure discretionary accrual they used modified Jones model. On the other hand, size of the firm was used as independent variable of the study. Firm size was calculated by natural logarithm of total assets. The model used to test hypothesis of the study was regression model. After complete analysis, at the end, the study found that firms in the Albanian market were engaged in earnings management practices and there was no significant differences concerning earnings management practices, comparing large and small size firms.



Wuryani (2013) examined the influence of firm size on EM and firm performance. The study used firms that were registered in Indonesian Stock Exchange at that time (ISE). The period for data collection of his study was from 2004 to 2008. Secondary data type was used in his study, and the source for data collection of his study was annual financial statement of the firms. The data was obtained from Indonesian capital market directory. the dependent variables of his study were earnings management and firm performance. To measure firm performance, his study used Tobin's Q. On other side, management of earnings was proxied by discretionary accruals. the independent variable of hid study was firm size. Firm size was calculated by using natural logarithm of total assets. Finally, after complete analysis, he found a significant negative effect of firm size with earning manipulation practices. On the other hand, his results showed that large size firms will evade doing earning manipulation practices. In addition, his study revealed that firm size had a significant positive influence on firm performance.

Linasmi (2017) examined the influence of firm size on EM. For this purpose, the study used the time period of 5 years for the collection of data i.e. from 2010 to 2014. His study population was consisted of non-financial firms registered on Indonesian stock market. The sample size of the study was consisted of 418 firms. The sample of the study was collected by purposive sampling technique. The independent variable used in the study was EM. EM was proxied by discretionary accruals. his study used modified Jones model for the purpose to detect management of earnings. In contrast, the independent variables of the study were financial leverage, firm size, and sales growth. His study used multiple regression analysis for the purpose to check the influence of firm size on EM. At the end, his study revealed that there is significant positive influence of financial leverage on earning manipulation practices. On other size, his study revealed no significant influence of firm size and sales growth on EM.

### **2.3. Audit Quality and Earnings Management**

Yasar (2013) examined the influence of big four auditors' audit quality on earning manipulation. Therefore, audit quality is used as independent variable in his study. On the other side, dependent variable of the research was earnings manipulation. the time period of data collection of the study was 5 years i.e. from 2003 to 2007. His study obtained information of all firms of manufacturing industry that were listed at Istanbul stock exchange at that time. He excluded financial firm from sample of his study. Commercial firms are eliminated due to unlike accounting method. The holding firms were also eliminated from the sample due to difference in the structure of balance sheet. some firms were also eliminated from sample due to insufficient data. The sample technique that was used in the study was random sampling. univariate and multivariate analysis were used for the objective of checking the hypothesis to check the influence of audit quality on earning manipulation of sampled firms. discretionary accrual was used as an alternative for EM. At the end the study concluded that audit quality does not have an effect on earnings management. The result showed no difference in audit quality among big four firms and non-big four audit firms to restrict earning manipulation in Turkey.

Lopes (2017) investigated the association between quality of audit and earnings manipulation in Portugal. The sample size of the study was consisted of non- listed firms of Portugal whose financial disclosures are prepared at that time. The time range of the study is from 2011 to 2013. The total amount of firms sampled for the study was 4723 firms of 43 industry sector. The dependent variable of the study was earnings management. the proxy that was used to calculate earnings manipulation was discretionary accruals. On the other hand, the independent variables of the study were audit quality. multiple linear regression model was used in the study for the purpose to check this association. Finally, his study displayed an association between audit quality and earning manipulation. Earning

manipulation was significantly smaller for the firms that were audited by Big 4 audit firm, than the firms that were audited by non-Big 4 audit firm.

Affes and Smii (2016) studied the impacts of audit quality on earnings manipulation in Tunisia. The sample size of their study was consisted of 20 firms from non- financial sector of Tunis Stock market. The time range for data collection of the study was 5 years i.e. from 2005 to 2009. To study the impacts of audit quality on earning manipulation, the study used earning manipulation as dependent variable. On the other hand, independent variable of their study was audit quality. At the end they found significant impact of the audit quality on that of the earnings management.

Alzoubi (2017) investigated the association between audit quality, debt financing, and EM practices in Jordan. For the purpose to examine the association, the study used EM as dependent variable. EM was proxied by discretionary accrual. Moreover, modified Jones model was used in his study for detecting EM. In contrast, debt financing and audit quality were independent variable of the study. To investigate this association the study used generalized least square regression (GLS) for this purpose. The sample size of the study was consisted of 72 industrial firms. The time period for data collection of the study were 7 years from 2006 to 2012. At the end after the complete analysis the study found that audit quality reduces the practices of earning manipulation and improve the value of financial reporting. he stated that high debt would increase earning manipulation risk.

Mousawi and Thuneibat (2011) studied the influence of audit quality on earning manipulation. Populace of the investigation was included all organizations that were enlisted on the Aman Stock market. The entire quantities of enrolled firms on Aman securities exchange at the time were 248. Then again, the example size of their investigation was 100 firms. The time span for information accumulation of the investigation was 5 years from

2002 to 2006. SPSS programming was utilized in the examination to break down the information and to check the theories. EM was utilized as needy variable in their examination. The board of procuring was proxied by optional collections. On opposite side, free factor of the examination was review quality. The examination additionally incorporated some control factors. The control factors were, significance of customer and inspector name. Relapses examination was utilized for the reason to check the impact of review quality on winning control rehearses. After complete investigation, the examination uncovered that review quality affected EM. Their investigation uncovered that customer significance had no noteworthy effect on EM. The investigation suggested that review firms ought to build up their execution. Their examination additionally prescribed that, observing organizations ought to likewise build up their control above review firm for the reason to improve nature of the review and help to distinguish and stop EM rehearses.

Becker et al. (1998) examined the effect of audit quality on EM. Management of earnings was used as dependent variable in their study. discretionary accrual was used as an alternative the purpose to detect management of earnings. To detect earnings management, cross sectional version of Jones (1991) model was used for this purpose. In contrast, the independent variable of the study was audit quality. The time period for data collection of the study was 4 years from 1989 to 1992. At the end after complete analysis the study found that the mean and median absolute value of earnings management were bigger for firms that were not audited by Big six auditors. The results also point out that low audit quality was related with more accounting flexibility.

Mishra and Malhotra (2016) investigated the association between EM and audit quality of the firms registered on Bombay stock market. To examine the association, they collected the data for 3 years i.e. from 2013 to 2015. The data of their study was secondary in nature. The population of their work was comprised of firms that were registered on

Bombay stock market. the sample size of their study was consisted of 130 firms that were listed on Bombay stock market. Financial firms and also public sectors undertakings were omitted from their study. firms with insufficient information were also excluded from their study. Their study used Cluster sampling technique for the purpose to draw the sample. Regression analysis was used in their study for the purpose to check this association. dependent variable of their study was management of earnings. Moreover, management of earnings was proxied by discretionary accrual. To detect discretionary accrual their study used modified Jones model for this purpose. On the other hand, the independent variables of the study were, audit committee size, audit committee independence, audit committee multiple directorship, and audit committee expertise and audit committee meetings. Audit committee size was calculated by whole number of directors of audit committee. Audit committee independence was measured as 1 if a greater number of directors in audit committee are independent and 0 if not. Audit committee multiple directorship, calculated as 1 if more directors in audit committee clench more directorship in the firm, and if not then 0. Audit committee expertise was calculated by 1 if minimum one member of audit committee had financial and accounting expertise and if not then 0. Audit committee meetings, calculated by the number of meetings held in one year. After the analysis, at the end, they found that, audit committee size, multiple directorship and number of the meetings have significant impact on EM. While other characteristics of the audit committee was not found to have significant influence on management of earnings.

Yasser and Soliman (2018) studied the effect of audit quality on EM of the firms that were registered in Egypt. To investigate this relationship, they used data for the period of 5 years i.e. from 2012 to 2016. They used the firms which were included in the Egyptian index EGX100 as a sample of the study. The study excluded financial firms. Financial firms were omitted due to difference in accounting policies. The information gathered was

secondary in nature. Information was obtained from the financial reports of the firms. Ordinary least square model was used for the purpose to study the association between audit quality and management of earning. Dependent variable of their study was management of earning. management of earnings was proxied by discretionary accruals. Moreover, to detect discretionary accruals their study used modified Jones model for this purpose. On the other hand, the independent variables of the study were, audit firm size and auditor tenure. Some control variable was also included in the study that was firm size, leverage, and cash flow from operations. After complete analysis, at the end, they found that only one variable in the independent variables which was auditor tenure have positive and significant association with EM. In contrast, the relationship of other variables with earnings management was insignificant.

Gerayli et al. (2011) investigated the influence of audit quality on earning manipulation. For this purpose, they used earning manipulation as a dependent variable of the study. Earning manipulation was proxied by discretionary accrual. In addition, modified Jones model was used for the purpose to calculate discretionary accruals. Conversely, free factor utilized in their investigation was review quality. Review quality was estimated by three unique factors. The factors identified with review quality utilized in their investigation were size of the inspector, business specialization of the reviewer, and freedom of the evaluator. Evaluator measure was utilized as a fake variable in their examination. Reviewer estimate was estimated as 1 the review firm is one of the huge four and in the event that not, at that point 0. Industry specialization was additionally utilized as a fake variable in the investigation. Industry specialization was estimated as 1 if the reviewer of the firm was an industry master and in the event that not, at that point 0. Autonomy of the examiner was estimated in the examination by the characteristic log of the review expense. Some directing factors were likewise incorporated into their examination. The directing factors were firm

size, influence, working income and development outline. The number of inhabitants in their examination was comprised of all the publically recorded firms at Tehran financial exchange. The information was gotten from 90 non-monetary firms recorded at Tehran financial exchange. The examination prohibited the organizations with deficient information. Non-financial firms such banks and protection firms were additionally prohibited from the investigation. To look at the relationship their investigation utilized relapse examination. At last, after the investigation, their examination inferred that inspector size and examiner industry specialization were found to have negative relationship with EM.

Ahmad et al. (2016) studied the influence of audit quality on EM of the manufacturing firms registered on Indonesian stock market. For this purpose, they collected data from 2010 to 2013. The population of their study was consisted of the manufacturing firms listed on Indonesian stock market. they used earnings management as a dependent variable of their study. EM was proxied by discretionary accruals. In addition, modified Jones model was used for the purpose to calculate discretionary accruals. In contrast, the independent variable of their study was audit quality. Audit quality was calculated by two different variables, and the variables were audit firm size and audit firm industry specialization. The study also included some control variables. The control variables were firm size, operating cash flow and leverage. To examine this association their study used multiple regression analysis multiple regression analysis. At the end, the study found that audit quality and management of earnings were inversely associated to each other.

Gajevskzky (2014) examined the effect of auditor opinion on earning manipulation of Romanian firms. Regression analysis was used for the purpose to examine this association. Population of his study was consisted of all firms that were registered on Bucharest stock market. he gathered information of 60 firms for analysis. Information for his study was

gathered for one year i.e. for 2012. Moreover, dependent variable of his study was earning manipulation. He used discretionary accrual as an alternative for earning manipulation. In contrast, independent variables of his study were auditor opinion and audit size. Finally, after analysis his study revealed inverse association of auditor opinion and audit size with earning manipulation.

Aliyu et al. (2015) investigated the effect of audit quality on earning manipulations of banking sector in Nigeria. They gathered information of 10 registered banks. the information was gathered for time period of 8 years. The time period was from 2006 to 2013. The information that they gathered was secondary. simple regression analysis was used in order to investigate the association. Dependent variable of their study was earning manipulations. Discretionary accrual was used as an alternative for earning manipulation. In contrast, independent variable used in their study was audit quality. Finally, after complete analysis, the study revealed significant influence of audit quality on earning manipulations. their study showed that joint firm service and audit firm size are significantly and inversely related to earning manipulation. In contrast, they argued that auditor financial dependency is significantly positive related to earning manipulation.

#### **2.4. Firm Characteristics and Earnings Management**

Bassiouny et al. (2016) studied the influence of firm characteristic on EM. For this purpose, they collected information from 2007 to 2011. population of their study was consisted of firms that were registered on Egyptian stock market. Sample size of their study was consisted of 50 firms that were registered on the Egyptian Stock market. Their study omitted financial firms from the sample. Financial firms were omitted due to different CG mechanism and disclosure requirements. The source for data collection was disclosure books and also some data was purchased from the Egyptian firms for information and



dissemination. Panel data technique was used in their study. To examine the association the study used generalized least square (GLS) for this purpose. Earnings management was dependent variable of their study. Management of earnings was proxied by discretionary accruals. to calculate discretionary accruals their study used modified Jones model for this purpose. The independent variable of the study was characteristics of the firm. Firm characteristics were consisted of firm size, financial leverage, firm age, audit quality and firm survival. At the end after the analysis, the study found significant positive relationship between leverage and management of earnings. In contrast, other variables, which were firm size, firm age and audit quality of the firm have an insignificant connection with earnings management. The study recommended that future research could consider other variables related to firm characteristics rather than those variables used in their study and also other independent variables related to CG and cultural dimensions that might have a more effect on EM.

Uwuigbe et al. (2015) studied the influence of firms' characteristics on EM of registered firms in Nigeria. For the purpose to investigate the relationship they select 20 firms as a sample. The time period for data collection was five years from 2006 to 2010. The source for data collection was financial reports. Dependent variable used in their study was EM. Management of earnings was proxied by discretionary accruals. modified Jones model was used for the purpose to detect discretionary accruals. On the other hand, the independent variables of the study were firm size, leverage, and corporate strategies. A control variable was also used in the study that was cash holding. After the analysis, they found that firm size and corporate strategy had significant positive influence on discretionary accruals. In contrast, the study showed insignificant relationship between leverage and management of earning. Thus, they concluded that bigger firms tend to have greater incentives and more prospectuses to be involve in manipulation of earning and

overstate earning due to difficulty of their operations and difficulty for users to recognize overstatement.

Debnath and Roy (2017) investigated the impact of firm specific characteristics over the earnings management. For this purpose, the study collected the data from 2007 to 2015. Dependent variable of their study was earnings management. The proxy that they used for detecting of earnings management was discretionary accruals. On the other hand, firm specific characteristics were independent variable of the study. The firm specific characteristics were consisted of firm size, firm age, leverage, profitability and growth. To examine this association, they used multiple regressions. At the end, after the analysis, the study revealed significant negative effect of financial leverage on earning manipulations. On other hand, firm age, profitability and growth were found to have positive influence on earnings management. Their study confirmed that big firms with high financial leverage tend to have lower incentive of earning manipulations. On other hand, profitable firm with lengthy and higher growth opportunity motivated to involve more in earnings management.

Alexander and Hengy (2017) analyzed factors that affect earnings management of Indonesian stock market. They obtained information for the time period of 5 years, i.e. from 2011 to 2015. The sampling technique that was used in the study was purposive sampling method. Moreover, they used data of 103 non-financial firms registered on Indonesian stock market. to check the hypothesis of their study they used regression analysis in their study. The dependent variable of their study was management of earnings. Moreover, management of earnings was proxied by discretionary accruals. independent variables used in the study were, growth, financial leverage, fixed assets turnover, profitability, size, firm age, audit quality, industry and auditor independence. Growth was measured by market capitalization divided by total equity. Leverage was calculated by total debt divided by total assets. Fixed asset turnover was calculated by sales divided by fixed assets. Profitability was calculated

by return on assets. Firm size was calculated by natural logarithm of total assets. Firm age was calculated by taking natural logarithm of the year since the firm foundation. Audit quality was used as dummy variable in the study and was measured as 1 if audit firm is big four and if not then 0. Auditor independence was measured as 1 the firm was audited within three years by different auditors and otherwise 0. Industry was also measured as 1 if the firm was included in the agribusiness, property, natural resources, technology sector and service sector and otherwise 0. At the end, their study concludes only profitability had positive influence on management of earnings. On the hand, other independent variables did not have influence on earnings manipulation.

Alareeni (2018) investigated the effect of specific characteristics of the firm on EM. For this purpose, they used data from 2010 to 2011. The sample size of his study was consisted of 332 registered firms in GCC countries. The GCC countries included Kuwait, Oman, Bahrain, Saudi Arabia, and United Arab Emirates. he excluded financial firms such as insurance and banks from his study. Panel data technique was used in the study. To investigate the impacts of specific characteristics of the firms on EM, he used multiple regression analysis in the study. EM was used as a dependent variable in the study. EM was proxied by discretionary accruals. discretionary accrual was detected by using modified Jones model. In contrast, the independent variables associated with firm characteristics were firm size, firm loss and firm financial leverage. Finally, after complete analysis, his study found that, firms were engaged in EM practices except one country in the GCC which was Oman. their study showed that size of the firm and financial leverage has an insignificant impact on the dependent variable of the study in GCC countries. The study also revealed that loss of the firms effects the practices of EM except one country of the GCC country which is Bahrain. The results of his study confirmed that most of the firms in the GCC countries were involved in the manipulations of earnings through discretionary accruals.

## **2.5. Financial Leverage and Earnings Management**

Ardison et al. (2012) investigated the relationship between financial leverage and managers' decision to manage earnings practices in Brazil. To investigate the relationship, they used earnings manipulation as dependent variable in their study. Earning manipulations was proxied by abnormal accruals. In contrast, independent variable of the study was firm financial leverage. To measure earnings management, they used three models of discretionary accruals in the study. The first model used in the study was Jones model which was proposed by Jones (1991). Second model to measure earning manipulation was modified Jones model. The third model was the KS model which was proposed by Kang and Sivaramakrishnan (1995). They also used some control variables as well. The control variables were firm size and cost of capital. The time period for data collection of the study was 17 years from 1994 to 2010. After complete analysis, the study showed no association between firm financial leverage and earning manipulations. their study suggested that there is favorable significance of debt, as increased level of debt might decrease manager's discretionary spending, and thus reduce accrual earning manipulations.

Vakilifard and Mortazavi (2016) investigated the influence of financial leverage on accrual and real based EM. For this purpose, they used data from 2008 to 2013. the sample size of their study was consisted of 118 firms that were listed on Tehran stock market at that time. Accruals and real based earning manipulations were used as dependent variables of the study. Accrual based EM was proxied by discretionary accruals. On the other hand, the study used three proxies for real based EM. The first proxy was, abnormal level of cash flow from operations. The second proxy was abnormal level of production cost. The third proxy used for real EM was abnormal level of discretionary expenses. In contrast, the independent variable of the study was financial leverage. To examine the association, their

study used multiple regression analysis in the study. At the end, the study found that managers have a tendency to involve more in real EM as compared to accrual-based EM.

Shirzad and Haghghi (2015) examined the influence corporate leverage on EM. To examine this association, they gathered information from 2001 to 2014. The dependent variable used in the study was earnings management. On the other hand, corporate leverage was used as independent variable in the study. At the end, after analysis the study found inverse association between leverage and earning manipulation practices.

Lazzem and Jilani (2017) investigated the influence of leverage on accrual-based EM for the sample of French listed firms. For this purpose, they obtained data from 2006 to 2012. Dependent variable used in their study was management of earnings. In contrast, leverage was used as independent variable in their study. At the end, after the analysis, the study showed inverse association between leverage and EM. the results of their study showed that, increase in level of leverage offer motivations for managers to manipulate earnings.

## **2.6. Mixed Literature Related to Earning Management**

Amertha et al. (2014) investigated the influence firm size, financial leverage and CG on EM in Indonesia. Populations of their study were all firms that were included in the Indonesia most trusted firms list. sample of their study was selected by using a purposive sampling approach, with the following criteria: firms that were included in the category of Indonesia most trusted firms for the period of 2009-2011 and also listed in the Indonesian Stock Exchange (ISX). Moreover, financial firms were omitted from their study. Banking and other financial firms were excluded because of the fact that such firms have a highly regulated characteristic. The total number of sampled firms was 47. they used earnings management as dependent variable of the study. Management of earnings was proxied by

discretionary accruals. On other hand, the independent variables of the study were firm size, firm financial leverage and governance mechanism. CG in the study was measured by using CG index. At the end, after complete analysis, by using moderated regression analysis (MRA) and residual test, the study found that size of the firm and CG has a significant influence on EM. On other hand, financial leverage was not found to have a significant influence on earning manipulations practices. their study indicated that governance mechanism is capable to moderate the association of firm size and firm financial leverage on earning manipulations.

Gargouri et al. (2010) studied the association between corporate social performance and EM. They obtained information of 109 Canadian firms. the time period for data collection was from 2004 to 2005. The study used earnings management as dependent variable. the corporate social performance was used as independent variable in the study. They also used some moderating variables in their study. The moderating variables used were, financial performance, firm size, debt, growth and business sector. At the end, after the analysis the study showed that corporate social performance is positively related to earnings management.

Baig and khan (2016) examined the influence of international financial reporting standards (IFRS) on EM in Pakistan. For this purpose, they collected the data for the time period from 2002 to 2004 for pre IFRS era and then from 2005 to 2008 for post IFRS era and after that from 2008 to 2011 to record any anomalies in their results. They used secondary data for their study. The data was obtained from State Bank of Pakistan and Balance Sheet Analysis (BSA) firms that were registered on Pakistan stock exchange. Panel data technique was used in the study. the sampling technique used in the study was convenient sampling. In addition, random sampling was also used in their study for analytical purpose. They used IFRS in their study as independent variable and EM as

dependent variable. At the end, they concluded that the introduction of IFRS from 2001 to 2009 led to a lesser amount of earning manipulations.

Akram et al. (2015) investigated the impacts of EM and organizational performance, the comparison between Pakistan and India. For this purpose, they collected the financial data of 20 listed firms in the specified sectors drawn from the annual reports of the firms that were available at the official sites of both nations. The sample size of their study was consisted of 20 firms that were registered on Karachi stock exchange (KSE). they obtained the data of 20 firms that were registered on Bombay stock exchange in India. Data was collected for 5 years i.e. from 2009 to 2013. They used ordinary least square (OLS) technique in their study for the purpose to test hypothesis of the study. They used three variables named, discretionary accruals, return on assets, (ROA) and return on equity, (ROE). Discretionary accrual was independent variable of their study. Discretionary accrual was used as proxy to calculate earning manipulation. In contrast, ROA and ROE were two depended variables that were used as proxies to calculate organizational financial performance. At the end the study revealed significant inverse association between management of earning and organizational financial performance in Pakistan. In contrast, the study found insignificant association between EM and organizational financial performance in India.

Bukit and Iskandar (2009) investigated the association between surplus free cash flow, earning manipulation and audit committee. For this purpose, they used earning manipulation as dependent variable of their study. Discretionary accrual was used as a substitution for earning manipulation. discretionary accounting accruals was measured based on the modified Jones model. On the other hand, free cash flow and audit committee independence were used as independent variables of their study. They also included some control variables in their study. The control variables were, relative cash flow, size of firm

and total accruals. The sample size of their study was consisted of 155 firms that were registered on Bursa Malaysia. the time period for data collection of their study was 2001. At the end, after the complete analysis, their study revealed that audit committee independence support firms with higher surplus free cash flow to reduce income which rise earning manipulations.

Cuong and Ha (2018) investigated the influences of financial ratios on EM of firms that were registered on Vietnam Stock market. Therefore, they used data of 320 non-financial firms. They collected data from 2008 to 2016. secondary data was used in their study. Independent variables of their study were liquidity ratio, activity ratio, profitability ratio, ratio of financial leverage, cash flow from operation and growth ratio. some moderating variables were also included in their study. The control variables were, firm size and firm age. In contrast, dependent variable of the study was management of earnings. Discretionary accrual was used as substitution for management of earnings. modified Jones model was used in the study for the purpose to measure discretionary accruals. At the end, after complete analysis they found that, return on asset, cash flow from operation ratio, total assets turnover ratio, growth ratio and current ratio have significant influence on EM. two control variables of the study that were firm size and age were found to have significant influence on EM as well.

Naz et al. (2011) examined the influence of firm size and capital structure on earning manipulation of registered firm on Pakistan Stock Exchange (PSX). For this purpose, they used data from 2006 to 2010. the population of their study was consisted of all private firms that were listed on PSX at that time. On the hand, the size of the sample of their study was consisted of 74 firms. The sample firms were selected from, cement sector, sugar sector and from chemical sectors of PSX. The dependent variable of their study was EM. The proxy used for detecting management of earnings was discretionary accruals. Moreover,



discretionary accrual was calculated by Jones model. On other side, capital structure and size of the firm were independent variables of their study. Firm size was calculated by natural logarithm of total assets. capital structure was calculated by long term debt divided by shareholder equity. Finally, they found significant negative influence of capital structure on EM. On the other hand, size of the firm was found insignificant.

Roodposhti et al. (2012) studied the association between earning manipulation and capital structure. To investigate this relationship, they used 119 non-financial firms that were listed at Tehran stock exchange (TSE). they obtained data from 2000 to 2008. The dependent variable of their study was EM. Discretionary accrual was used as a substitution for EM. On other side, independent variables of their study were return on assets, return on equity and total assets. Finally, after the analysis, their study revealed positive association between earning manipulation and debt ratio.

Laily (2017) examined the influence of good governance system and audit quality on earning manipulation. The population of his study was consisted of the manufacturing sector of the Indonesian stock market. He used data of 86 manufacturing firms that were registered on Indonesian stock market. Furthermore 2016 was the time period for data collection of his study. The sample of the study was collected by purposive sampling technique. The data collected was secondary in nature. The dependent variable of the study was EM. the proxy used to measure earning manipulation was discretionary accrual. Moreover, modified Jones model was used to calculate discretionary accrual. On the other hand, good CG and audit quality were used as independent variable of the study. Board composition and audit committee was used as a proxy for good governance system. At the end, the study found insignificant influence of audit quality on earning manipulation. In addition, the influence of audit committee and board of directors on earning manipulation were also insignificant.

Veronica (2015) examined the influence of leverage and firm size on EM. For this purpose, the study used data from 2009 to 2012. Population of his study was consisted of the manufacturing firms that were registered on Indonesian stock market. his study used data of 30 manufacturing firms. The sample of the study was collected by the purposive sampling technique. The dependent variable used in the study was EM. Discretionary accrual was used as a substitution for EM. On other side, independent variables of his study were, firm size and leverage. At the end, his study revealed no influence of operating leverage and financial leverage on EM. the study also showed no influence of firm size on EM.

Nalarreason et al. (2019) examined the influence of firm size and leverage on EM. Manufacturing sectors of Indonesian stock market was used as population of their study. Some firms were omitted from the sample of their study. Firms were omitted due to unavailability of data and due to some other reasons. sample size of their study was 75 firms. Data for their study was collected for 5 years i.e. from, 2013 to 2017. Moreover, dependent variable of their study was EM. EM was proxied by discretionary accrual. independent variables used in their study were firm size and leverage. At the end, their study revealed positive influence of leverage on EM. Moreover, the study also showed positive influence of firm size on EM. The study indicated that with increase in level of leverage and increase in the firm size both encourage managers to manipulate earning.

Khosheghbal et al. (2017) studied association of audit quality and board of directors with earning manipulation of the firms that were registered in Tehran stock market. They obtained data from 2009 to 2014. they used data of 142 firms in their study. Dependent variable used in their study was management of earnings. Management of earning was proxied by discretionary accrual. In addition, to calculate discretionary accrual they used

modified Jones model. In contrast independent variables of their study were audit committee, board independence board size and firm size. To study this association generalized least square method was used. Finally, after analysis, their study revealed positive association between firm size and earning manipulation. In contrast, study showed no association of board size, board independence and audit committee with earning manipulation.

Batool et al. (2017) studied association between institutional investors and EM of firms that were registered on Pakistan stock exchange. They obtained data from 2010 to 2016. They obtained data of 100 firms from manufacturing sector for their study. Dependent variable of their study was management of earning. Management of earning was proxied by discretionary accrual. In contrast, institutional investor was used as independent variable. they also used some moderating variables. Moderating variables used in their study were firm size and leverage. Finally, at the end, their study revealed significant positive association of institutional investor and firm size with earning manipulation. In contrast, their study showed significant negative association between leverage and earning manipulation practices.

## **2.7. Hypothesis Development**

On the basis of the above literature the study develops the following hypothesis:

**H1:** There is significant relationship between firm size and earnings management.

**H2:** There is significant relationship between leverage and earnings management.

**H3:** There is significant relationship between age of the firm and earnings management.

**H4:** There is significant relationship between audit quality and earnings management.

**H5:** There is significant relationship between governance quality and earnings management.

## 2.8. Theoretical Framework

### Independent Variables

- 1) Firm size
- 2) Firm financial leverage
- 3) Firm age
- 4) Audit quality
- 5) Governance quality

### Dependent Variable

Earnings Management



## **CHAPTER 3**

### **METHODOLOGY**

This chapter consists of the method and techniques used in the study. The second thing explained in this chapter is the population of the study, sample size, sample technique, description of the dependent and independent variables, theoretical frame work and econometric model of the study

#### **3.1. Population of the Study**

It is an all-around characterized or set of individuals, administrations, components, and occasions, gathering of things or family units that are being examined, as per Mugenda and Mugenda (2003). The number of inhabitants in the examination comprise of all non-monetary firms that are recorded on Pakistan stock trade (PSX). The timeframe for information gathering of the investigation is 10 years from 2007 to 2016.

#### **3.2. Sample Size and Sampling Technique**

The size of the investigation was 80 firms however, the examination included 8 additional organizations in light of the fact that the information of these 8 firms was at that point accessible. Board information is utilizing in the investigation and the idea of the information is optional. The allout firm year perceptions end up 880. The information is hand gathered for all factors from the yearly reports of the firm. The yearly reports of all inspected firms are downloaded from the sites of these organizations and from the open

doors site. The CG index used in the study is proposed by Abbadi et al. (2016) and firm attributes proposed by Bassiouny et al. (2016) is pursued.

### **3.3. Panel Data Analysis Approaches**

This research consists of the panel data and the study uses different approaches of panel data. Asteriou and Hall (2007) stated that there are three approaches of panel data and these approaches are common constant, random effect and fixed effect method.

### **3.4. Description of Variables**

#### **3.4.1. Dependent Variable**

This study uses the discretionary accruals as a proxy for earnings management. To calculate discretionary accruals, first of all the study find out total accruals which is the combination of discretionary and non-discretionary accruals.

By reviewing the previous literature, it has come to know that accruals are the most widely accepted proxy for EM. Accruals may be calculated by two methods.

1. Balance sheet approach
2. Cash flow statement approach

According to balance sheet approach the accruals may be calculated as:

$$TA_t = \Delta CA_t - \Delta Casht - \Delta CL_t + \Delta DCL_t - DEPt$$

Where:

TA, represents total accruals.

$\Delta CA_t$ , represents change in the current assets of the firm in the current year.

$\Delta Casht$ , represents change in cash and equivalents of cash in the current year.

$\Delta CL_t$ , represents the fluctuation in the current liabilities of the firm in the current year.

$\Delta DCL_t$ , represents change in the amount of debt of the firm included in the current liabilities in the current year.

$DEP_t$ , represents depreciation expense and amortization expense in the current year.

The study calculated the total accruals by the cash flow statement approach. Based on the cash flow statement approach the total accruals can be calculated as follows:

$$TA = NI - CFO$$

Where:

TA = Total Accruals.

NI = Net income

CFO = Cash flow from operations

But the total accrual is not the proxy for EM.

So, for the calculation of discretionary accruals the study subtracted non-discretionary accruals from total accruals.

to calculate the non-discretionary accruals the study used the equation which is based on modified Jones model:

$$NDA = \beta_{1j} [1 / A_{t-1}] + \beta_{2j} [\Delta REV_t - \Delta AR_t / A_{t-1}] + \beta_{3j} [PPE_t / A_{t-1}]$$

Where:

$NDA_t$  = Non-discretionary accruals for firm j in year t

$A_{t-1}$ : Total assets for firm j in year t-1

$\Delta REV_t$ : Change in the revenues (sales) for firm j in year t minus revenue in year t-1

$\Delta AR_t$ : Change in accounts receivables for firm j in year t minus receivable in year t-1

PPE<sub>t</sub>: Gross properties, plants and equipment for firm *j* in year *t*

$\beta_1, \beta_2, \beta_3$  these are the firm specific parameters. In order to find these specific parameters that are used in the NDA equation a regression equation is used and this equation is as follows: (Ahmad et al (2014), Uwuigbe et al. (2015) and Bassiouny et al. (2016).

$$TAC/A_{t-1} = \beta_{1j} [1 / A_{t-1}] + \beta_{2j} [(\Delta REV_t - \Delta AR_t) / A_{t-1}] + \beta_{3j} [PPE_t / A_{t-1}] + \varepsilon$$

So, to calculate discretionary accruals the study subtracted non-discretionary accruals from total accruals.  $DA = TAC/A_{jt-1} - NDA$ .

### 3.4.2. Independent Variables

Firm characteristics followed by Bassiouny et al. (2016).

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Firm size	Natural log of the total assets
Firm financial leverage	total debt/total assets
Firm age	Log of the number of years since the firms foundations

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Corporate Governance index proposed by Abbadi et al. (2016)

**Table1. Corporate Governance Quality Index**

Category	Governance standard	Rule in Corporate governance Code
Board of directors	<p>1: The member of the board of directors of the firm are not less than five as well as not more than thirteen.</p> <p>2: one-third of the directors are Independent directors</p> <p>3: CEO and chairman positions are separated</p>	<p>“The administration of the Company is entrusted to a board of directors whose members shall be not less than five</p> <p>“At least one third of the board members are independent members.”</p> <p>“It is not allowed for one person to hold the positions of chairman of the board of directors and any executive position in the company at the same time”</p>
Board meetings	<p>4) Disclosure about number of the board meetings</p> <p>5) The number of board meetings is not less than six</p>	<p>“The board of directors shall meet at least once every two months, provided that the number of meetings in the fiscal year must not be less than six and the number of meetings shall be disclosed in the company’s annual report”</p>
Audit	6) Existence of Audit Committee	The board of directors shall form the following permanent committees:

The Audit Committee of a firm that performs the task of overseeing and monitoring accounting and internal control and auditing activities in the company

7) Disclosure of frequency of Audit Committee meetings

The Committee shall meet regularly, not less than four times a year, and minutes of its meetings must be the company's external auditor should:

8) Engagement of Big 4 auditors

- A. Possess a valid license to practice the profession.
- B. Be a member of the Jordan Association of Certified Public Accountants.
- C. Have practiced the profession on a full-time basis for at least three consecutive years, after receiving his license to Practice the auditing profession.
- D. Have in his firm at least one partner or employee who must also meet the above- mentioned requirements

### 3.5. Econometric Model

$$DAC = \beta_0 + \beta_1 FSIZE + \beta_2 FLEV + \beta_3 FAGE + \beta_4 AUQUL + \beta_5 GQ + \varepsilon$$

Where:

DAC: is the discretionary accrual

FSIZE: is the firm's size

FLEV: is the firm's financial leverage

FAGE: is the firm's age

AUQUL: is the audit quality and

GQ: is governance quality

$\varepsilon$ : the error term

## CHAPTER 4

### RESULTS AND DISCUSSIONS

#### 4.1. Descriptive Statistics

The descriptive statistics shows the mean, maximum value and minimum value and standard deviation as well. The dependent variable of the study is EM. discretionary accruals are used as a proxy for earnings management. On the other hand, the independent variables of the study are firm size, firm age, financial leverage, audit quality and governance quality.

**Table No 4.1**

#### *Descriptive Statistics*

Variable	Obs	Mean	S.D.	Min	Max
DAC	880	0.0332	0.899	-3.703	23.65
F.S	880	6.453	1.745	0	8.68
F.L	880	0.74	3.583	-0.957	103.9
F.A	880	35.36705	15.876	4	70
A.Q	880	0.57	0.495	0	1
G.Q	880	4.414	1.193	2	8

In the above table Obs Stands for Observations, SD stands for Standard Deviation Min stands Minimum value and Max stands for Maximum value, DAC stands for Discretionary Accruals, FS stands for Firm Size, F.A stands for Financial Leverage, FA stands for Firm Age, AQ stands for Audit Quality, GQ stands for Governance Quality

As shown in the above table number 1 the mean value of the dependent variable of the sampled firms are equal to (0.0332) with the standard deviation of about (0.889). The average shows that about 0.0332 percent on the average of the earnings management practices by the sampled firms are having upward direction means manipulating the earnings level by increase it.

The results of the independent variables show that the mean value of firm size is 6 percent with the minimum value of 0 and with the maximum value of 8.7 percent and the standard deviation of 1.74 percent. Moving to another independent variable of the study which is financial leverage. The mean value of the financial leverage is 74 percent to the total assets of the firm, which means that averaged of the sampled firms are more dependent on debt as compared to equity. The minimum and maximum values for financial leverage are -95.7 and 103 respectively with the standard deviation of about 3.583. Another independent variable of the study is age of the firm. The mean age of the sampled firms of the study is 35.36705. The minimum value for the firm age is 4 and the maximum value is 70 with a standard deviation of 15.87603. Another independent variable of the study is audit quality of the firm. The minimum value of the audit quality is 0 and the maximum value is 1. The mean value of the audit quality is 57 percent which means that 57 percent of the sampled firm is audited by one of the big four audit firms. Furthermore, the mean value for governance quality is 4.414. The minimum value for governance quality is 2 and the maximum value is 8 with a standard deviation of about 1.193. The average results of descriptive statistics for governance quality shows that the adoption of CG rules by sampled firm is not ideal.

## 4.2. Correlations Matrix

This table summarized the pairwise correlation of variables such as, firm size, financial leverage, firm age, audit quality and governance quality.

**Table No 4.2**

<i>Correlation</i>	DAC	F.S	LEV	F.A	A.Q	G.Q
<i>MatrixVariables</i>						
DAC	1					
F.S	0.0222	1				
F.L	0.0534	0.0051	1			
F.A	0.0255	0.0411	0.0272	1		
A.Q	-0.034	-0.0311	0.0178	0.0388	1	
G.Q	0.0318	-0.013	0.0602	0.0694	0.4423	1

In the above table DAC stands for Discretionary Accruals, FS stands for Firm Size, F.L stands for Financial Leverage, FA stands for Firm Age, AQ stands for Audit Quality, GQ stands for Governance Quality.

Pairwise correlation shows the relationship among the dependent and independent variables of the study and helps to check for multicollinearity problem. The pairwise correlation shows low degree of correlation among independent variables such as size of the firm, financial leverage, firm age, audit quality and governance quality of the firm.

Bryman and Cramer (1997) stated that the Pearson correlation among independent variables of the study should not be more than 0.8 for the purpose to prove that there is no multicollinearity problem in the variables of the study. So, as shown in the above table all the value of the pairwise correlation of this study is less

than 0.8, the value of audit quality in the pairwise correlation is 0.4423 which is the greatest value of the pairwise correlation, and the value is also less than 0.8. So, the results of Pearson correlation matrix show that there is no multicollinearity problem among the variables of the study. Variance Inflation Factor (VIF).

**Table No 4.3**

***Variance Inflation Factor (VIF)***

Variables	Standard Value (1.0>10 )
F.S	1.00
F.L	1.00
F.A	1.01
A.Q	1.24
G.Q	1.25

In the above table, FS stands for Firm Size, F.L stands for Financial Leverage, FA stands for Firm Age, AQ stands for Audit Quality, GQ stands for Governance Quality.

This study run variance inflation factor (VIF) for the purpose to check multicollinearity problem through VIF as well. According to the rule of thumb when the value of VIF is greater than 10, so there will be multicollinearity problem. So, the VIF results of the study for size of the firm is 1.00 which is less than 10. The result indicated that there is no multicollinearity problem for size of the firm. Furthermore, the value for the independent variable, which is financial leverage is also 1.00 and shows that there is no multicollinearity problem. The value for age of the firm is 1.01, for audit quality the value is 1.24 and for governance quality the value is 1.25. So, all the values of VIF are less than 10

which indicate that there is no multicollinearity problem in the data of the study and multicollinearity cannot bias the results of the study.

#### 4.4. Fixed Effect Model

The table summarized the F-test for the independent variables such as, firm size, financial leverage, firm age, audit quality and governance quality.

**Table No 4.4**

*F-Test (Chow test)*

Variables	<i>Coefficient</i>	<i>Std Error</i>	<i>t-value</i>	<i>P-value</i>
F.S	.010682	.0088903	1.20	0.233
F.L	.0133027	.0009766	13.62	0.000
F.A	-.089107	.3046484	-0.29	0.771
A.Q	-.2970764	.2127384	-1.40	0.166
G.Q	.046617	.0257957	1.81	0.074
R-Square	0.0041			
Model Significance	0.0000			

In the above table, FS stands for Firm Size, F.L stands for Leverage, FA stands for Firm Age, AQ stands for Audit Quality, GQ stands for Governance Quality.

The table shows the results of F-test checking for fixed effect model. The results of the F-test for size of the firm shows that the coefficient value is .010682 with Standard Error of about .0088903, t-test and p-values are 1.20 and 0.233 respectively. These results indicate that there is an insignificant and positive relationship between firm size and EM. For financial leverage the coefficient value is. 0133027, Standard Error value is .0009766 and the t-value and p-values are 13.62 and 0.000 respectively. The significant p-value and



positive coefficient value for financial leverage indicates that there is significant positive association between financial leverage and EM. Furthermore, for the firm age the coefficient value, Standard Error, t-value and p-values are -0.089107, 0.3046484, -0.29 and 0.771 respectively. The results of the F-test for audit quality shows that the coefficient value is -.2970764 with a Standard Error of 0.2127384, the t-value is -1.40 and p-value for audit quality is 0.166, the result of F-test for audit quality indicates that there is insignificant negative association between audit quality and EM. For governance quality the F-test result shows that the coefficient value is 0.046617, Standard Error value is 0.0257957, the t-value is 1.81 and p-value is 0.074. The results of the f-test show significant positive relationship of financial leverage with earnings management. The results of the F-test shows insignificant association of firm size, firm age, audit quality and governance quality with EM. However, the overall p-value for the model of the F-test is 0.000 which is highly significant. The overall model significance is an indication for the acceptance of alternative hypothesis. The acceptance of alternative hypothesis is the suggestion for the usage of fixed effect model.

#### **4.5. Random Effect**

This table summarized the LM-test for the variables such as, firm size, financial leverage, firm age, audit quality and governance quality.

**Table No 4.5**

***LM-Test (Langrange Multiplier test)***

Variables	<i>Coefficient</i>	<i>Std. Error</i>	<i>z-ratio</i>	<i>p-value</i>
F.S	.0102525	.0081631	1.26	0.209
F.L	.0127008	.0011819	10.75	0.000
F.A	.0928386	.0656383	1.41	0.157
A.Q	-.1068237	.0751104	-1.42	0.155
G.Q	.0403123	.014673	2.75	0.006
R-Square	0.0074			
Model Significance	0.0000			

In the above table, FS stands for Firm Size, F.L stands for Financial Leverage, FA stands for Firm Age, and A.Q stands for Audit Quality, GQ stands for Governance Quality.

The results of LM test shows significant positive association of financial leverage and governance quality with earnings management. Adding to this the results also shows positive relationship of firm size and firm age with EM but the results are statistically insignificant. In contrast, the results of the LM test show insignificant negative relationship of audit quality with EM. However, the overall p value of the model for LM test is 0.0000 which is highly significant and the indication for the acceptance of alternative hypothesis.

Hence, both the models are highly significant. The study needs Hausman test to be applied in order to reveal the exact model to be applied for the study.

#### 4.6. Hausman Test

Table No 4.6

*Hausman test*

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Discretionary Accruals	
Hausman Test	Prob>chi2 = 0.8599

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Asteriou and Hall (2007) stated that in order to make choice between fixed effect and random effect model we have to run Hausman test. For fixed and random effect model the study used Hausman test for the purpose to check that which model is better for the study to explain the regression model. The value of the Hausman test will decide whether to use fixed effect or random effect model. The result of the Hausman test indicates that random effect model should be used instead of fixed effect model because the value of the Hausman statistics is 0.8599 which is not significant because the value is greater than 0.05 and thus random effect model is selected as it is the most suitable model for the study.

#### 4.7. GLS Regression

This table summarizes the results of random effect GLS regression of the variables, such as firm size, financial leverage, firm age, audit quality and governance quality.

**Table No 4.7*****Random Effect Model with Robust***

Variables	<i>Coefficient</i>	<i>Std. Error</i>	<i>z-ratio</i>	<i>p-value</i>
F.S	.0102525	.0081631	1.26	0.209
F.L	.0127008	.0011819	10.75	0.000
F.A	.0928386	.0656383	1.41	0.157
A.Q	-.1068237	.0751104	-1.42	0.155
G.Q	.0403123	.014673	2.75	0.006
R-Square	0.0074			
Model Significance	0.0000			

In the above table, FS stands for Firm Size, F.L stands for Financial Leverage, FA stands for Firm Age, and AQ stands for Audit Quality, GQ stands for Governance Quality.

This study used random effect model estimated by generalized least square (GLS) regression with robust in order to remove assumptions related issues. The overall random effect model which is estimated by GLS is found to be highly significant as shown in the above table as the level of significance is (0.00) and the adjusted R-square for the model is 0.074 percent which shows that 0.074 percent of the variation in the EM are explained by the independent variables that are firm characteristics and governance quality. Furthermore, the significance level between the dependent variable and independent variables of the study are explained as follows: the study shows insignificant positive relationship between firm size and EM as the p-value for these two variables is 0.209 which is greater than 0.05 with coefficient value of 0.01025. According to the rule of thumb when p-value is less than 0.05 it will be significant, otherwise it will be insignificant.

Furthermore, the study found strong significant positive relationship between financial leverage and EM as the p-value for these two variables is 0.000 with the coefficient value of 0.01270. This result shows that there is more chance in highly leveraged firms to be engaged in EM practices as compared to the firms that are mostly equity financed rather than debt financed. According to this result the second alternative hypothesis of the study is to be accepted. This result is similar to the results of Bassiouny et al. (2016). Moreover, the study revealed insignificant positive association between firm age and EM because the p-value for these variables is 0.157 which is also greater than 0.05 with a positive coefficient value 0.09283. The third alternative hypothesis of the study is to be rejected because of insignificant association between firm age and EM. In addition, the study found insignificant negative association between audit quality and EM, as the p-value for these two variables is 0.155 with a negative coefficient value of -0.10682. This result shows that increase in the audit quality of firm will reduce earnings management practices. Because of insignificant association the fourth hypothesis of the study is to be rejected as well.

Another independent variable of the study is governance quality. The results of random effect model estimated by GLS regression shows that there is a positive significant association between governance quality and EM as the p-value for these two variables is 0.006 which is less than 0.05 with a positive coefficient value of 0.04031. This result is the indicator for the acceptance of the last and fifth hypothesis, so the fifth hypothesis is to be accepted. The overall results of the random effect model show that among the firm characteristics only financial leverage have a significant and positive association with EM, while the rest of the independent variables are insignificantly associated with EM. The results regarding to firm characteristics are similar to Bassiouny et al. (2016), Al Saeed

(2006) and Chung et al. (2005). In addition, the result of this study regarding to governance quality is similar to the results of Shah et al. (2010).

#### **4.8. Discussion**

In this chapter it has been intended to provide brief explanation of the study. In previous chapter the impacts of firm characteristics and governance quality on earnings management has been analysed. In order to achieve this purpose, non-financial firms of Pakistan stock exchange are targeted. Annual data of eighty-eight firms is collected as sample for this study. The time period for the sample firms is from January 2007 to December 2016. The data was collected on annual basis. The data was collected from different sources such as Pakistan stock exchange and others sources. There were five hypothesis tested which include, there is significant relationship between firm size and earnings management, there is a significant relationship between financial leverage and EM, there is a significant relationship between firm age and EM, there is significant relationship between audit quality and EM and the last hypothesis is that there is significant relationship between governance quality and earnings management. Different proxies are used to capture each variable. Firm's characteristics are captured by the method of Bassiouny et al. (2016). Governance quality is measured by CG quality index proposed by Abbadi et al. (2016). After the calculation of variables panel data analysis is followed. Fixed effect and random effect model are applied first. Both the models fixed and random effect model reject the null hypothesis. Therefore, Hausman test is conducted. Hausman test gave the suggestion in the favor of the Random effect model. Heteroskedasticity and auto-correlation are associated with random effect model. Therefore, to avoid such assumptions GLS model is used with robust in order to remove assumptions related to random effect model.

The main result of the study proposed that there is significant positive relationship of financial leverage and governance quality with earnings management. The study also suggested that there is an insignificant relationship of firm size, firm age and audit quality with earnings management.

## **CHAPTER 5**

### **CONCLUSION**

#### **5.1. Conclusion**

The main purpose of this study is to investigate the impact of firm characteristics and governance quality on earnings management of eighty eight non-financial firms listed on Pakistan stock exchange. Earnings management is used as dependent variable in the study. On the other hand, independent variables used in the study are firm characteristics and governance quality. Different proxies are used to capture each variable. Firm's characteristics are captured by the method of Bassiouny et al. (2016). Governance quality is measured by corporate governance quality index proposed by Abbadi et al. (2016). After the analysis, the study showed significant positive relationship of financial leverage and governance quality with earnings management. while, the study showed insignificant relationship of firm size, firm age and audit quality with earnings management. The results of this study are of great importance. The results are very important for those who want to conduct studies on the same topic of the firms listed on PSX. Moreover, the results are also important for the investors in developing countries like Pakistan. The results of this study are important for the stakeholders because they are dependent on the reported financial information to take investment and other decisions on the basis of such information. The results of this study show significant positive relationship of financial leverage with the dependent variable, (earnings management) which gives an indication for the firms that are listed on PSX to control the level of financial leverage for the purpose to avoid the existence of earnings management practices.



Furthermore, the results of this study might be guidance for the stakeholders of the firms to understand and focus on the level of the financial leverage of the firm before taking any decisions. It is concluded that the results of financial leverage are in line with Bassiouny et al. (2016), Chung et al. (2005) and Al Saeed et al. (2005). On the other hand, the results of corporate governance are similar with shah et al. (2009) and in contrast with Abbadi et al. (2016) and Ilyas et al. (2018).

## **5.2. Limitations of the study**

This study has different limitations, for example the study used only four independent variables related to firm's characteristics which are the most commonly used characteristics of the firm in the prior literature testing their effects on the dependent variable, (earnings management).

Furthermore, the study is conducted only on the sample of 88 non-financial firms of the Pakistan stock exchange, (PSX) the others firm listed on Pakistan stock exchange are missing because of the shortage of time.

The governance quality index proposed by Abbadi et al. (2016) is consisted of 10 variables, but this study reduced it to 8 variables because two variables were not applicable in the Pakistani context, which is also a limitation for this study. The time period of data collection is limited to 10 years, so this could also be a limitation of this study.

## **5.3. Recommendations**

The main aim of this study is to investigate the impact of firm characteristics and governance quality on EM. Panel data procedure is done. The study is done through GLS model. Ten years data is used in this study from January 2007 to December 2016. The

outcomes of this study proposed significant positive relationship of financial leverage and governance quality with earnings management.

The empirical results of this study are an expressive for future empirical work. In this work, firm size, firm age, financial leverage, and audit quality are used as a proxy for firm characteristics. However, CG quality index proposed by Abbadi et al (2016) is used as a measure for governance quality. One can use other measure of firm characteristics and governance quality that can explain dependent variable (earnings management) and can raise the level of adjusted R square. This study utilized sample period of ten years i.e. from 2007 to 2016 and the sample size of 88 non-financial firms, one can use large sample size along with for a long period of time. Finally, this study has been done only on the basis of annual data, one can use semiannually, quarterly, monthly and daily basis data for further investigation.

This study is conducted on non-financial firms listed on Pakistan stock exchange (PSX), future studies may investigate the same relationship on financial firms that are listed on PSX instead of non-financial firms. Further studies may be directed in comparing the findings of this study with the findings that relate to firms operating in other developing countries.

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