# CAPITAL UNIVERSITY OF SCIENCE AND TECHNOLOGY, ISLAMABAD



# Impact of Free Cash Flow, Dividend And Financial Leverage on Earnings Management; Evidence From Pakistan

by

# Sami Ullah

A thesis submitted in partial fulfillment for the degree of Master of Science

in the

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CAPITAL UNIVERSITY OF SCIENCE & TECHNOLOGY ISLAMABAD

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# Abstract

Earnings management has been a very attractive and hot topic among accounting researchers due to its sensitivity relating to decision making. This study focuses on the impact of dividend, leverage and free cash flow on earnings management as very little researches have been done on the said topic in Pakistan. Data from 2006 to 2017 has been chosen for PSX 100 index. Modified Jones Model has been used in order to detect earnings management. we have found that free cash flow to firm (FCFF) free cash flow to equity (FCFE) and leverage have negative relation while size have positive relation with earnings management.

Keywords: earnings management, free cash flow ,dividend and leverage.

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# Chapter 1

# Introduction

The corporate collapses in the beginning of 21st century and at the end of 1990s have seen a large number of corporate accounting scandals across Europe and United States. Examples of these corporate scandals are Enron, HealthSouth, Tyco, WorldCom, and Xerox. It is noted that the reason behind all these corporate accounting scandals is earnings management (Goncharov, 2005). Collapse of some large companies because of accounting manipulating activities have raised some serious questions regarding the effectiveness of many corporate monitoring techniques in order to protect investors and to control opportunistic behavior of managers (Ibrahim, 2007). Managers of the organizations always try to secure funds in order to run the business activities and smooth decision process without interference of any external factors. Managers at the same time also try to gain any kind of personal benefit from the business activities (Kim & Yoon, 2009). So accounting earnings are of great importance to stakeholders regarding the fact that it is one of the end processes of accounting. Managers try to practice earning management on the basis of accounting earnings (Uwuigbe et al, 2015). Financial reporting process is more valuable and is of great importance for the user of financial reports because the decision of the user is based on that information that is provided to them (Sara 2009).

External stakeholders solely depend on the validity of financial information that the organization provides to them. Stakeholders include individual as well as various groups who are either benefited or harmed, and their rights are either respected or despoiled by corporate actions. Stakeholders are owners, Management, employees, customers, lenders, and local community (Donaldson & Werhane, 1999). The notion of stakeholders is a generalization of the concept of stockholders, who are the owner of firms or corporation and who have some claim of the organization. Just like stockholder who may demand some actions as a right from the management of the firm, just like them stakeholders may also have a right to make some demands.

The main theme of publishing financial reports is to provide information and on behalf of these information stakeholders make their economic decision about a particular firm/company (Benedict & Elliott, 2001). As Gray and Manson (2007) stated in their study that financial reports of the firms contain huge sources of information for shareholders therefore it must be fair in nature which may not dispose the right and interest of any stakeholder.

Stakeholders group which is the most influential, are lenders of capital to a firm, and they are mostly concerned about financial figures in the financial report published by the borrowing firm. Therefore, managers of the firms borrowing from these lenders are mostly involved in window dressing of financial figures in order to avoid debt covenants. So such actions taken by managers in order to modify financial figures are commonly known as earnings management (Mikhailova, 2010). Davidson, Stickney and Weil (1987) stated that steps taken deliberately in order to bring down reported earnings to a desired level within the boundaries of generally accepted accounting principles (GAAP) is known as earning management. Schipper, (1989) in his study defines earnings management as a purposeful intervention in the process of external financing for the purpose of achieving some private benefit. Healy and Wahlen, (1999) in their study proposed that earning management is the result of using own judgement while making financial reports for the purpose of misleading some stakeholders about the economic performance of the organization or for the purpose of influencing some contractual outcomes that are based on reporting accounting numbers.

According to Scott (2009) earning management is the action or choice of managers which affects earnings in order to achieve a desired earning objectives. Under such circumstances in which managers use their discretion to achieve some desired goals, earning management for shareholders is opportunistic rather than informative (Bassiouny 2009). However, in such situations earnings reports replicates management desires instead of real firm financial performance (Levitt, 1998).

Practice of earning management is explained by many theories such as signalling theory, agency theory, information asymmetry theory, etc.Signalling theory states to test that whether an organization is involved in value added actions during a specific period of time or not, earning is considered as the best indicator to capital market (Waweru & Riro, 2013). Prior et al (2008) states that according to stakeholder theory managers manipulate earnings for the purpose of achieving self-interest or personal benefit at the expense of shareholders and other stakeholders. Similarly, agency theory was proposed by Jensen and Meckling (1976) in which they highlighted the agency problem which shows that managers of the organization acts for their interest rather than for Principal interest.

### **1.1** Theoretical background

Agency problem is a major problem within public listed firms where managers of the organization work for their own interest while principles want them to work for their interest such as maximization ofshareholder wealth (Jensen & Meckling, 1976). Jensen (1986) proposed that the best way to align the interest of principle with the interest of managers the organization must give some reward to the managers on their performance. The rewards may be in the form of cash, in the form of job security or in some other form. So in order to receive the reward managers of the organization falsify the accounting figures of the firms financial statement. Such action such as presentation of fake image of financial figures of the firms is known as earnings management (Itturiaga & Saona, 2005; Healy &Wahlen, 1998; Yermack, 1997).

According to Healy and Wahlen (1999) earnings management is the art of decision making about financial reporting and organizing transactions to change the financial reports to betray some stakeholders about the real financial condition of the company or to influence contractual outcomes that depends on reported accounting numbers. The end result of income statement such as reported accounting earningsare mostly used for evaluation of firm performance, in spite of the fact that it entails two components such as a cash component and an accrual component. That is why it becomes critical to recognize that a major portion of accruals could be subjected to managements discretionary power, and this brings to light managements ability to shift earnings between accounting periods to influence users perceptions (Healy & Wahlen, 1999). Earnings management may arise as a consequence of agency problems. Managers of the firms manage earnings to windowdress financial statements with the aim of improving their position (Iturriaga & Hoffmann, 2005). According to Loomis (1999) managers muddling the facts those shareholders/stakeholders must have to know. Dechow and Skinner (2000) wereof the view that managers influence contractual results that depend on reported accounting numbers. Managers have many incentives while managing earning. For example, when a firm shows losses in the previous financial year it may influence the short term stock price and tries to fulfil capital market expectation to carry out lending agreement and to achieve bonuses through management compensation contracts (Healy & Wahlen, 1999 Dechow & Skinner, 2000).

According to (Titmaan et al, 2009) for the sake of getting rewards from management managers may also involve in earning management. Fan (2007) is of the view that investor prefers to invest their money in the firms having higher profitability. When firms face inappropriate high economic pressure, then accounting units are asked to maximize profit in the financial statement of the firm. So in such condition accounting with all the flexibilities doesnt seem to provide useful information for managers (Boulton et al, 2011). According to (Richard Cheung et al 2004) suggested that firms with high free cash and low growth uses their discretion to increase firms profit as a compensation of their projects having negative net present value. Firms having low growth opportunities with free cash flow leads to the major agency problem, in such conditions, shareholders wealth decreases as a result of cost created by managers. According to Chen et al (2011) free cash flow is the main tool, which leads to the agency problem. However, managers in order to cover the investment effect which do not doesn increase shareholders wealth uses accounting options that increases reported earning leads to earning management (Kurdish et al., 2012). Similarly, Stuart Jones (2001) proclaimed that growth of firms in old economy is lower than firms in the new economy and there is a significant relationship among free cash flow and discretionary accruals and thats why managers tries to improve their business performance by discretionary accruals. Etemadi and Shafakheibari (2011) are of the view that free cash flow is used as incentive for earnings management and there is direct and significant relationship among earning management and FCF.

Richardson (2006) proposed that there is a significant and positive relationship between free cash flow and earning management. Bhundia (2012), Chung, Firth and Kim (2005) proposed that there is positive relationship between free cash flow and earnings management in international context. The relationship is the result of management failure in order to meet the profit expectation of beneficiaries and thus window dress the fact that surplus free cash flow is not distributed but invested in projects having a low return (Jensen, 1986).

Earning management normally includes the actions that are taken for the sake of smooth earning within an accounting period in order to meet or to achieve analyst forecast. Management's intentions act as a driver while managing earning to achieve the targeted objective. Pressure on management both from outside and inside also be a reason, because of which management manage earnings. External pressure is the pressure exerted by capital market in order to maintain shareholder value (Zakaria, Sanusi & Mohamed 2015). Earning therefore is used by managers for their own interest instead of shareholder interest (Syed Zulfiqar, Hui & Nousheen, 2010). According to the study of Spohr (2005) asymmetric information allows managers to use their discretion for their own interest instead of shareholders' interest while preparing financial statements because they have more information than outsiders (shareholders). A conflict of interests occurs between principal and agent because of information asymmetry that leads to agency problem based on agency theory. Stakeholders in such a situation cannot make better or optimal decision regarding a firm because the real financial information about the firm is window dressed (Zakaria et al; 2015).

Asymmetric information leads to the conflict of interest between shareholders and managers and leads to the cause of agency problem. According to the study of Beyer et al (2010) agency problem can be solved by judging the information from point of capital provided and by analyzing the contracts which contain information about the use of resources and return generated. In line with this chance of engaging in earning management becomes higher because the lenders assess the firm performance based on this information. A study conducted in Malaysia by Aini et al., (2006) suggested that managers of the firms are involved in earning management to window dress the financial figure because of the reason to attract the stock broker or investment trust. A study conducted in Pakistan by Wasimullah et al., (2010) examines the impact of leverage on earnings management and suggested that leverage limits earning management. Similarly the study of Jaggi and Lee (2002) reveals that in order to reduce the possibility of contract violation firms mostly engage in increasing earning management.

Similarly, managers of many firms make decisions about investments that are not disclosed to shareholders. Shareholders are normally not aware about the situation that managers face such as decisions about the purchase of a specific asset or make an investment in a project. Financial report is the primary source that provides information about investment performance of a firm, but that information is influenced by the manager (Vojtech, 2012). Prior et al (2008) suggested that managers involved in earning management for achieving their personal goal instead of maximizing shareholders wealth at the shareholders expense. Managers act in an opportunistic manner in order to achieve their personal goals instead of principal at the expense of shareholder which leads to the agency problem (Jensen & Meckling, 1976).

According to Faccio et al (2001) agency cost of managers discretion and misallocation of firm capital can be reduced by paying dividends. Similarly, La Porta et al (2000) suggested that paying dividend plays a vital role in limiting agency cost. Kasanen, Kinnunen and Niskanen(1996) conducted a study in Finland and find the evidence that firms that pays dividend are involved in earning management in order to the achieve target earning based on dividend. Similarly a study conducted in U.S by Daniel, Denis and Naveen (2008) examined that firms that pay dividend involved in earnings management in order to achieve target debt covenant for the purpose of paying dividend. According to the study of Savov (2006) in German the relationship among earning management, and dividend is negative but statistically results are not significant.

#### 1.1.1 Agency theory

Jensen and Meckling (1976) is the pioneer of agency theory. Agency theory states that principal hires an agent and gives him some authority of decision making on principal behalf. According to Eisenhardt (1989) agency problem is the result of contradiction of interest between principal and agent and for principal it is very difficult and costly to detect what manager (agent) is doing. Moreover, because of separation of ownership, agents usually struggle for the fulfillment of their personal goals and interests instead of shareholders' goals and in such situation shareholders bears the cost which are known as agency cost. According to Jensen and Meckling (1976) the contradictions are the result of weak monitoring of shareholder to monitor the managers action and performance.

Leuz et al (2003) proposed that firms bear high costs as a result of the manager pursuit to achieve his personal goal such as the cost incurred by forming a contract, loss of decision taken by manager and cost occur while monitoring and controlling manager action. Therefore companys earning ultimately reflects the effect of such behavior. According to Sara (2009) the existence of agency problem can be identified through the practice of earnings management. According to the study of Habbash (2010) in modern corporation management and ownership are separated and shareholders are not always a part of the firm's management therefore it sets the basis of agency problems.

#### 1.1.2 Stakeholders Theory

Stakeholder theory is the extension of agency theory. Agency theory argues that an agency relationship exists between principle and agent and principle gives some authority to the agent to make some decision on principle behalf. In such situation agent work for their own interest and to avoid the conflict may cause agency problems (Jensen and Meckling 1976). According to Freeman et al, (2004) this focus is narrow and now managers are expected to take care of the interest of different shareholder group such as an ethical consideration, social and environmental. However, there is a broader view created in which managers are expected to take care of not only shareholders'interest, but to take care of all stakeholders interest (Donaldson & Preston 1995).

Freeman (1984) defines stakeholder theory as Any group or individual who can influence or is influenced by the achievement of the organization's objectives. Carroll 1993 states that stakeholder may be an individual or a pool of participants having direct or indirect stake in the business. Beside this stakeholder theory faces large criticism that there is a large number of stakeholders and in order to align the interest of these different groups with that of firms goal causes conflict of interest (Hoque, 2006). According to Healy (2003) when the managers' goalsdo not align with shareholder interest, they uses stakeholder as a shield to claim that this conflict is because of consideration given to satisfy stakeholder interest.

### **1.2** Problem statement

Corporate governance has gained a lot of attention after corporate collapses such as Enron and WorldCom. Most of the countries have either completely changed or developed their system, rules and regulation etc, after every debacle that their country has witnessed. Therefore many developed countries like U.S, U.K, Canada and Malaysia have revised their code of corporate governance after these collapses (e.g. Sarbanes-Oxley Act, 2002; UK Code of Corporate Governance, 2010; Malaysian Code of Corporate Governance, 2007) (source: Canadian Response to The U.S. Sarbanes-Oxley Act Of 2002). Pakistan has also witnessed corporations to be involved in fraudulent activities (i.e. earnings management) e.g. Taj Company, Cresent Bank, Engro Foods, Privatization of PTCL, Mehran Bank, and Khanani and Kali Exchange Company (Siddiqui & Fahim, 2013). These activities arise a need for researchers to study the impact, significance and reasons to help the regulators stop such activities. Different studies relating to earnings management have been done in Pakistan (e.g. Shah, Butt and Hassan (2009) corporate governance quality as IV; Javid and Iqbal (2010) corporate governance, corporate valuation, ownership structure and need of external financing as IVs; Latif and Abdullah (2015) corporate governance as IV).

There is a gap in the literature that needs to be filled as there is no study on the relation between dividends, free cashflows, financial leverage, and earnings management. This study tries contribute to the literature by filling this gap.

### 1.3 Research Question

The study aims to answer the following questions.

- Is there any significant relationship between free cash flow and earning management?
- Is there any significant relationship between dividend and earning management?
- Is there any significant relationship between financial leverage and earning management?

### **1.4** Research objectives

This study has the following objectives.

• To explore the relationship between free cash flow and earning management.

- To explore the relationship between financial leverage and earning management
- To explore the relationship between dividend and earning management.

### 1.5 Significance of the Study

Pakistan stock market not only attract its local investors, but also attract foreigner investor because in the past few decades Karachi Stock Exchange is one of the world best performing market declared by "Business Week" an international magazine ("Best Performing Stock Market of the World for the year 2002"). Investors decision about investment mainly based on the information that is provided to them, therefore it is of great importance to explore the impact of all factors affecting on EM (earning management) in order to protect investors from misleading.

Past literature regarding earning management reveals that significant work has not been done in Pakistan. Like the Shah, Butt and Hasan (2009) only examine the effect of corporate governance quality on earnings management. They used data of firms listed on the stock exchange that cover the periodof 2006 to 2009. Similarly, another study conducted by Raheel (2015) in Pakistan with the title of "impact of characteristic of board on earning management". He only examines impact of board of director's characteristic on earnings management in his study. Therefore, this study will contribute in literature regarding the impact of free cash flow, dividend and financial leverage on earnings management in the context of the Pakistani stock market. Secondly, this study will also help the investors in understanding the causes of earnings management so that they may protect themselves if such a situation arises. Besides the aforementioned significance, the study can also help Security and Exchange Commission of Pakistan (SECP) and other policy makers in devising policies meticulously for the investor protection.

# Chapter 2

# Literature Review

Principals (owners) hire some agents (managers) and delegate some authorities to them. Principal wants manager to act in their best interest, but if the manager does not act in principals interest and strives for their individual interest, then there will be a conflict of interest between manager and principal (Jensen & Meckling, 1976). Jensen (1986) stated that these conflicting interests serve as a major part in the economics literature. Mostly plans of principal and agent are different in order to operate the firm. In order to align their interests the principal measures the performance of the management on firm profitability basis. Managers for the purpose of their increased performance mostly shows a fake image of the earning in financial statement by using relaxation in accounting methodologies. This fake image of firms earning is referred as earning management (Itturiaga & Saona, 2005; Healy & Wahlen, 1998). For the fulfillment of their own desires managers of the firms manipulate earnings of the firm (Jensen & Meckling's 1976).

### 2.1 Earnings Management

According to Healey and Wahlen (1999) earning management takes place when managers select that recording and valuation technique that do not clearly highlight the financial performance of their firm. Nanda and Wysocki (2003) were of the view that earning management is the technique of misleading some of the stakeholders about company financial performance or to influence predetermined results. Earning management can also be defined as, when internal stakeholders (managers) presents that suggestion for hiding true performance for the purpose, whether to influence stock performance, or to be benefited from contractual agreement with the firm or to influence any regulatory decision (Sun &Rath 2008).

Different researcher has defined earning management in different ways. But the core concept of earning management is change of information in financial reporting by the management. Management changes the information in financial reporting. For example, managementchange information to window dress financial statements, or to increase corporate managers' compensation and job security, or because of avoiding to violate lending contracts, or to decrease regulatory cost (Healey & Wahlen 1999). Duncan (2001) also suggested some aspect because of which management changes the accounting information. The aspects because of which management changes accounting information may be to achieve the predetermined objective, or because of gaining access to the debt market, unrealistic plans and budgets, to get management compensation, concealing unlawful transactions, promotion, to get bonuses, etc. When management intentionally presents a fake image about the firm financial performance of a firm for their personal gains is known as earning management (Nelson et al., 2002).

Earning management is the deterioration of real financial performance (Klein, 2002). Wallace and Pornsit (2004) defined earning management as the technique used by managers to increase or decrease the actual earning allowed by accounting principles. Firms can represent accounting figures for their interest besides of actual figures because GAAP allows them to do so (Park & Shin, 2004). The study ofBugshan (2005) suggests that earning management is a tool of earningsmanipulation which leads to diminish the reliability of earning.

#### 2.2 Free Cash Flow

Jensen (1986) presented free cash flow theory and defined free cash flow as excess of cash flow from operating activities that are needed for investment in projects with net present value discounted at the relevant cost of capital. The study also reports that free cash flow is one of the major agency problems. The agency theory regarding free cash flow proposed by Jensen (1986) states that as time passes external monitoring of managers becomes weak when agents (manager) utilizes companys assets for achieving personal benefits regardless of maximizing companys value and it leads to conflict between shareholders and managers. Lehn & Poulsen (1989) defined free cash flow is the operational profit before depreciation, but after payment of all taxes and dividend. Free cash flow is the amount of cash from operating activities and cash flow from investments.

Jensen (1986) was of the view that higher the free cash flows higher will be the conflict of interest between agents (managers) and principals. In such a situation managers can assure the principals that future cash flows will be used for increasing future dividends. But such assurance (promises) is weak because nothing can prevent dividends from decreasing in the future. On other hand reduction in dividend leads to reduction of stock prices in capital market, which is agency cost of free cash flows. Such situation is commonly serious in organizations (firms) that their dividend perspective is lower since their ability of generating future dividend is lower.

Managers commonly invest the free cash flows in projects having negative present value, when the monitoring system imposed by shareholders is not efficient. Most commonly managers invest in such projects because of self-serving behavior or to get other rewards.

Cabe and Yook, (1997) suggested that firms value can be increased or decreased depends on how free cash flows are utilized. The firms value increases if firms capital is effectively and efficiently utilized, while if capital is not effectively used then it leads to decreased firms value. The managers of such companies not only face the problem of optimal performance, but also faces the problem of efficient utilization of the firm's assets (cash flows) that were invested in less profitable projects (Ang et al, 2000). The study of Shin and Kim (2002) proposes that firms having higher FCF (free cash flows) normally invest their capital at lower rate of return with respect to firms having a lesser level of FCF.

Free cash flow is the amount available for investment, but later could be distributed among shareholders (Dechow & Ge 2006). When FCF is higher, the higher the possibility of conflict of interest between principal and agent and leads to agency cost as well as inefficient utilization of company s assets (Fanolacender & Wang, 2006).

According to Bhundia (2012) one of the major agency problems is the distribution of free cash flow. All of free cash flow should not be used for the purpose of attaining new assets while some portion of cash flows should be distributed among shareholders in the form of dividend. The study further reports that the situation in which managers opposes to do so leads toward agency problem among principal and agents (managers). Takia et. al (2012) proposed negative and significant relationship among FCF and utilization of firms assets and cash flows in an efficient manner.

### 2.3 Free cash flow and Earning management

If free cash flow of a company is not efficiently utilized or invested in order to maximize the wealth of shareholder, then it causes agency problems(Jensen 1986). Some manager may utilize or invest the free cash flow in an unprofitable project due to their self-interest. This may also result in the low growth of a company. In the absence of proper monitoring the manager conceals the information regarding their project investment. Thus, investors or stakeholders have not any access to such information and cannot analyze the advantages or disadvantages of their investment projects (Chung, Firth & Kim. (2005).

Due to some personal interest manager may not provide information about projected cash flows of some particular projects. This personal interest of managers may reduce future earnings, which may cause a pressure to remove directors and senior executive. However, for avoiding such type of risk the manager window dress balance sheets by accounting experts of their reported earnings (Bukit&Iskandar, 2009). According to Chung et al (2005) free cash flow with limited investment prospects is a sign of a most common agency problem, since agents (managers) can suffer expense that decreases shareholders wealth. This occurrence of expense is the agency cost of free cash flows, which are invested in projects with negative net present value (NPV). Firms having low growth opportunities most commonly invest their free cash flows in low profitable projects.

Firms having high growth tend to have lower free cash flows because the money is used in those projects that have a positive NPV(Opler & Titmen, 1993). But this relationship between free cash flow and firm growth is conditional to manage their earnings by means of discretionary accruals. Cabe and Yook, (1997) suggested that firms value can be increased or decreased depends on how free cash flows are utilized. The firm value increases if their capital is effectively and efficiently utilized, while if capital is not effectively used then it leads to decrease firm value. Dechow and Ge (2006) states that FCF is a better measure of earning that that of operational cash flows because it include capital charges like depreciations and amortization. FCF is investigated in a relation with earning management by different perspective. According to the study of Tsui, Jaggi and Gul (2001) audit fees of firms are higher due to the relationship between Free cash flows and agency problem. Further more they also documented that firm having possibilities of higher growth pay high fees due to high risk where as an independent Board of director reduce the risk uncertainties by applying opportunistic practices for firm high growth and potential.

According to the investigations of Watts & Zimmerman (1983) the decrease in earnings management is due to the role of auditors while analyzing the validity and reliability of firm financial statement. The auditors report of firm indicates an assurance to all stakeholders that the firm's financial statement follows the rules of generally accepted accounting Principles. Thus the auditors report may eliminate or decrease the agency cost conflicts arise due to asymmetric information between owners and management.

Lehn and Poulsen (1989) identified that firms earn greatest gain, which recently becomes private. This gain is the reduction of agency cost conflicts between shareholders and management relating to FCF and earning management. Earnings management is low prevalent when there is low agency cost (Jiraporn, Miller, Yoon & Kim, 2008). They further state that the firm's profitability, growth and asymmetric information is come in line after being private. Their statistical findings indicate that there is a significant negative relationship between agency cost and earning management.

If managers do earnings management on an opportunistic approach then it will have high agency cost and more profit. This refers a positive relationship between the momentum of interest conflicts and earning management. But however, if earnings management is not in the interest of agents then agency will go high with low earning management. It is because earning management is against the interest of stakeholders or agents (Pornsit, Gary, Soon & Young 2008).Richardson (2006) also indicates in his study that firms investment is more than optimal level having high free cash flows. According to his study sample 20 percent of non-financial firm have invested their free cash flows over optimal level.

Prior studies documented that monitoring activities by institutional shareholders may affect the management habits and can increase income by discretionary accruals. Like taking legal actions by institutional investors against managers who are serving their own interest. They can also withdraw the mangers if they know that the managers are working on their self-interest rather than opportunistic actions. The study argues that institutional shareholders impose more internal monitoring action when FCF is greater (Chung , Firth and Kim 2002).

According to the study of Stuart Jones (2001) new companies has a higher growth than old economy, companies and the relationship between free cash flow and discretionary accruals is significant. This is because manager of that companies are trying to improve their growth by discretionary accruals. Etemadi and Shafakheibari (2011) conducted a study and propose that there is a significant relation between FCF and earning management. It further concludes that free cash flow of a firm is an effective way of earning management.

Chandrsgaram et al. (2013) check the effect of audit committees on earnings management by taking a sample of 153 listed companies of Malaysia Stock exchange. The statistical results of the study confirm that audit committee may lead the company to an effective earning outbreak mechanism. In this regard Reina and Takya (2014) also undertake a study to check the relationship of earning management, free cash flow and audit committee. The study uses a sample of 911 listed companies of Malaysian stock exchange. The empirical evidences of the study reports that audit committee take the firm having high cash flows towards growth and increase earning management.

However free cash flow to equity (FCFE) of a firm is the amount of cash that is available to equity holders of a firm after the payement of all the expenses, reinvestment and debt.

Nekhili et al. (2015) found that Free Cashflow and Earnings Management are negatively related to each other in the presence of corporate governance mechanism and ownership features. According to them, corporate governance and ownership features play monitoring roles to reduce Earnings Management in the presence of Free Cashflow. On the other hand, there are numerous studies available that show that Free Cashflow lead to higher earnings management.

### 2.4 DIVIDEND

The study of corporate behaviour regarding dividend started with study ofLintner's. Lintner's (1956) proposed that dividend is main and basic element while making fiscal policy. Dividend policy is basically based oncorporate rules that highlight regulations and provide guidelines to a corporation to pay dividend to its principle (shareholders). Companies pay dividend to its shareholders as reward because of risk taken by shareholders. The decision to pay dividend is the key element of financial decision-making which is regarded as reward to firm's shareholder while taking risk of investing their money.

Dividend is wealth distribution strategy by public listed in order to return cash or asset to shareholders. Easterbrook (1984) proposed that when firms pays regular dividend to its shareholders, it enforces firms to generate funds from external sources while investing firms resources in such projects that have positive returns. Companies may also buy back shares from the market and return cash in the form of share repurchases. In such a context firm uses cash while buying the outstanding shares of the firm and reduces the number of floating shares. Dividend payment to its shareholders reduces the amount of FCF, which managers mostly invest in such project that have negative net present value.

Jensen (1986) proposed that when an organization creates large free cash flows the conflict of interest between shareholder and manager become critical, especially in the case relating to distribution of dividend policy. It leads to the problem that how to encourage managers to pay more amount of dividends irrespective by making investments with lower rate of return than the cost of capital. The study further refers the view that payment of the excess amount of funds to its shareholder decreases the amount of free cash flow, which managers mostly spends in such project that have negative net present value. Further study suggests that payment of dividend to its beneficiaries (shareholders) is key element to reduce control of internals (managers) over free cash flows otherwise they would be invested in such projects that would not contribute in firm's value maximization. The payment of the excess amount to its beneficiaries by firms would also reduce the conflict of interest between principals and its agents.

The main implication of distribution of cash among beneficiaries is to resolve overinvestment problems of the firms. La Porta et al. (1998) were of the view that dividend policy is the result of pressure exerted by external shareholders (minority shareholders) that forces internals (managers) to distribute resources (cash in the form of dividend) among the beneficiaries. Firms that are situated in countries having strong legal investors protection laws pays more dividend with respect to the countries that have weak investor protection laws (La Porta et al. 2002).

According to the context of agency cost of FCF (free cash flow) distribution of a firm's resources, especially in the form of dividend payment reduce the conflict of interest. Since dividend payment plays a vital role in minimizing the conflict of interest between beneficiaries (principals and agents) Ajide et al, (2014).

# 2.5 DIVIDEND AND EM

Dividend is one of the most debatable topics in literature of finance. Modigliani and Miller (1961) work about dividend policy, which challenges that dividend affects firm value. They suggested that in perfect market the value of the firm is not affected by dividend. But Linter (1962) and Gordon (1963) challenged the work of Modigliani and Miller by supporting Bird in hand theory which states that paying higher dividend leads to higher firms' value because of asymmetric and imperfect information. Black's (1976) statement that The harder we look at the dividend picture, the more it seems like a puzzle, with pieces that don't fit together regarding dividend was supported by the above statement. Dividend has the ability either to increase or decrease agency problem between managers and owners (Black, 1976; Easterbrook, 1984).

In agency problem dividend plays an important role. Jensen (1986) proposed that agency problem could be controlled through paying dividend. He proposed that in the context of free cash flow theory the managers of such firms that pays dividend have least chances to exploit and misuse firm's free cash. Linter (1956) stated that management of the firm increases the amount of dividend when they are sure that this increase in permanent. As managers and shareholder have not similar information therefore dividend increase or decrease gives a signal to prospective investors as shareholders about price sensitivity (Bhattacharaya 1979). John and Williams (1985) and Miller and Rock (1985) also supported that signaling proposition. Aharony and Dotan (1994), Brickley (1983) supported the information content hypothesis.

Kasanen et al., (1996) conducted a study in Finland, which includes 37 listed firms from period of 1970-1989. They concluded that earning management is implied by dividend. The requirement to manage earning is actually the contract to pay dividend to firm's beneficiaries. So the author concluded that because of the pressure from shareholders to pay dividend firms increases their earnings. The study of Beneish (2001) indicates that increase or decrease in earnings is mostly based on manager's motivations and self interest. Sava Savov (2006) investigates earning management and investment relationship and then analyzed their impact on dividend payment. They documented in his study result that relationship of investment and earning manipulation is positive while the relationship of earning and dividend payment is negative.

Managers of an organization are motivated by many factors in order to increase or decrease earnings but we will study the distribution of dividend (Naveen et al., 2007). Managers of the firms decide that how much profit should be distributed in the form of dividend among shareholders and how much profit should be reinvested in firm. Distribution of dividend is based on the recommendation of managers. So if a company does not make any profit, thenpayment of dividend will not be declared (Node& Akpomi, 2008). According to the study of Naveen et al., (2007) it also analyzed that in order to meet the thresholds, whether firms controls earnings, because in debt agreements restriction of dividend is common. Empirical Result of the study states that firms that distribute dividend have higher tendency to manage earnings with respect to the firms that do not distribute dividend.

Dividend importance while determining a company's value has resulted in theories inconclusiveness, because of which for academician's it is a one of the most controversial topic(Frankfurter et. al 2002; Ramcharan, 2001; Al-Malkawi, 2007).Brealey and Mayers (2005) were of the view that financial economics, policy about dividend is in the list of top ten unsolved problems.. Anil and Sujjata (2008) proposed that dividend behavior is not only affected by a single factor. The study states that there are many factors that affect dividend policy. Firms that made investment in projects having positive NPV and pays dividend then prices of shares of such firm goes up because of dividend payout (Akbar &Baig, 2010).

Jensen and Meckling (1976) stated in their study that as an insider and outsider investor have different information and this difference of information leads to agency concern. Existing literature reveals that managers of the organization keep excess cash because of their personal interest and thus it provides them the opportunity to misappropriate/ waste firm's resources for his personal interest at shareholders' expense (La Porta et al 2000). However if profit is not distributed among shareholder then it may be used by managers of the organization for their personal interest or may invest it in unprofitable projects DeAngelo, DeAngelo, and Stulz, 2006; Denis and Osobov, 2008).

Liu (2011) examines that whether firms that pay dividend window dress earning by real activities to the smooth dividend level and payout ratio. The study uses Compustat's Execucomp database and find the evidence that policy about dividend influence upward as well downward real earning management. The study further indicates that dividend level is used as a benchmark. Firms manipulate earning upward when dividend of the current year is less than the dividend of preceding year in order to meet the shortfall through real activities. In addition to this he further suggested that firms follows the conservative policy of paying dividend window dress earning to a higher extent than firm which do not follow the conventional policy of paying dividend.

Earning management impact on dividend policy in Pakistan was investigated by (Haider et al., 2012). In order to investigate the relationship KSE 100 index companies was analyzed from 2005 to 2009. Dividend policy was measured through dividend payout while discretionary accruals were used as a proxy for measurement of earning management. Measurement of discretionary accruals was done through Modified cross sectional model (1995). Regression analysis result indicates impact of earning management on dividend policy because of rejection of null hypothesis. Furthermore, they stated the coefficient relation is so weak that is approximately equal to no relationship. In addition to this reason of no relation is financial decline period, as a result of changes of earning management every year. Earning management increases during years of economic decline and firms downsizes dividend payment.

Aurangzeb and Dilawer (2012) analyses the impact of earning management on dividend policy of printing industry in Pakistan from 1966 to 2008. Discretionary accruals were used as proxy for measurement earnings management which was calculated with the help of Modified jones model. Furthermore, there is negative and significant relationship between dividend policy and control variable ROA. Abed et al., (2012) conduct a study of 259 Jordanian manufacturing companies from the period of 2006-2009 regarding the level of conservatism in accounting policies and investigated its impact on earnings management. The study results show the existence of difference on level of conservatism between firms. In addition to this study documented that size and conservatism are in negative relation with earning management while relationship of performance is positive with earning management.

Wen He et al., (2012) investigates that whether dividend give some information about reported earning quality in a global setting. The study states that firms management pays dividend to give sign of their intention to forgo private control benefits for purpose of reporting high quality earning as they have less incentives to window dress expropriating activities. They added that firms in 31 countries which pays dividend shows smaller amount of abnormal accruals and high accruals quality. Furthermore they documented that dividend and earning are strongly associated in those countries where investor protection laws and information system are weaker. The study also focus on the view that dividend indicates earning quality, especially in those countries having asymmetry of information and higher probability that insider expropriate minority shareholders.

Cheng and Leung (2010) analysed that whether firm's management (directors) get any advantage of the insider information that about firms trading position of stocks in market when firm make any announcement. As insiders have more information about firms. There they recorded in their study that insider are more involved in trading before any good news announcement which shows significant positive relation. Furthermore, they recorded significant negative relationship before announcement of any bad news. Similarly, in Tehran stock exchange earning management and dividend policy was analyzed by (Moghri & Galogah 2013). The study documents significant and positive relationship between managing of earning and dividend policy. The study further suggests that dividend percentage increases with the increase in discretional accruals.

### 2.6 Financial leverage

Loomer (1971) defines leverage as employment of an asset or fund by an organization for which the organization pays a fixed cost or return. Schting (1995) define leverage as a factor that determines the overall risk of an organization. In addition to this on one hand leverage is involved in increasing organization cost, but on the other hand it has some greater positive effect. Leverage is the ability of the firm to utilize their resources or funds having a fixed load in order to increase the income level of the company's owner (Syamsudin, 2001). Financial companies seek profit in order to increase wealth, therefore leverage is used to specify the amount needed for smooth running of operations. Leverage is of two kinds that are operating as well as financial leverage.Operating leverage determines utilization of fixed operational cost incurred as a result of investment activities made by the company, while financial leverage determine the usage of assets or fund collected by taking loans or issuance of preferred stock. Cost incurred as a result of collection of this fund is interest or to pay dividend (Aries 2015).

Aries (2015) explains the financial leverage is the amount that comes from taking loan or issuance of preferred stock. Fixed cost is associated over the use of these funds in the form of dividend or payment of interest. Firms should pay these fixed amounts either they make a profit or not. Payment of this fixed amount increases the level of uncertainty that leads to liquidation of the firm. The higher the level of debt the higher will be the chances of liquidation.

According to Tarjo, (2008), Jao and Pagulung (2011) the performance of the firm will look good from a shareholder perspective as a result of earning management irrespective of the fact that the firm is exposed to liquidation. When the firm is not exposed to liquidation and the level of debt increases, then the owner demands a higher amount of profit as a result of higher risk. Firms having higher leverage ratios incline to manipulate earning management.

### 2.7 Financial leverage and earning management

There is abundant of literature regarding leverage and earning management. Earning management and leverage relationship have a controversial debate in both empiric as well as theoretic context. Especially two schools of thought describe the relationship between leverage and earning management. Prior studies proposed that managers have an impulse behavior in order to change accounting methods for the purpose to window dress accounting based restriction exist in debt contracts. Press and Weintrop (1990) are of the view that level of debt uses a proxy to determine the existence of accounting limitation risk of default or investment opportunities of a firm. In addition to this they stated that higher the level of debt higher would be the probability of violation of debt contract. They also stated that there is positive relationship among accounting based accrual and income of firm reporting strategies. In line with these results Sweeney (1994) and DeFond and Jiambalvo (1994) took samples of those firms that have actually violated debt contracts instead of level of debt.

Becker et al. (1998) documented that manager of the firms having high leverage has many reasons in order to increase the reported earnings i.e. to avoid violation of debt agreements. Richardson et al. (2002) in their study documented that debt provides two diverse bases in order to motivate managing of earnings. First source to engage in earnings management is the incentive that claimed to be given as a result of violation of a debt agreement. In line with these results specifies that leverage provides the base for engaging in aggressive accounting policies when a sample of firms that restated their annual incomes are studied. Firms that have taken high debt are mostly involved in more earning management with respect to the firms that have taken low loan. Firms having heavy loan mostly manage their earnings more with respect to low loan taking firms. So the relationship between leverage and earning management is positive (Catanach & Rhoades, 2003). Sweeney's (1994) states that managers take on income increasing accounting choice in order to protect firms from potential default. Firms that are near to default mostly implement income increasing accounting techniques for delaying of their technical skill (DeFond & Jiambalvo (1994). They added that abnormal accrual is significant and positive of the sample firms in prior years of default violation. Similar findings are also examined by Watts and Zimmerman (1990) and Mohrman (1996) which states that higher the debt level the more likely the firms adopt those accounting techniques that increasing their income.

Husnan (2002) proposed that high amount of leverage is because of errors while managing financial management of the firm, or it may be because of not implementing the strategy properly by the management. Further, he stated that leverage level becomes higher because of no proper supervision. In line with this management, opportunisticbehavior of management increases and they will tend to do earning management. Making use of leverage managers try to increase the wealth of shareholders. Zhaoyang et al. (2005) also report same empirical evidences in the study. According to Gu et al. (2005) the study documents in their study that there is positive relationship exists between leverage and earnings management. Suwito and Herawaty (2006) and Goddess (2007) analyze the effect of debt, size of the firm and corporate governance on EM from the period of 2003 to 2005 on the manufacturing firms list in the stock exchange. The result of their study indicates that firms having high leverage mostly do more earning management by implementing income increasing policies.

Highly leveraged firms have high chances of bankruptcy in the corporate governance i.e. when an organization or the firm fails to pay off the amount of loan to their creditors, thus the value of the firm as well as the wealth of the shareholders are damaged (Odit & Chittoo, 2008). The study of Irina (2009) proposes that companies having high leverage leads toward bankruptcy if they are not capable to make repayment of loan through outside source of finance/ through external debt financing. If companies have taken high loan/leverage and want to take a new loan, then the lenders will analyse several measures and will demand the company to keep their debt within reasonable limits. Toor et al., (2010) is of the view that factor that motivates managers to manage firms earnings is to meet the expectation of the creditors as well as of investors in order to carry more debt, whereas leverage has bidirectional ( positive and negative) relationship with earnings management. Contrary to the positive relationship between leverage and earning management some studies reveals alternative results. For example DeAngelo et al. (1994) conducted a study on a sample of firms in distress having high levels of debt as well as debt covenants. The result of their study indicates that managers of distressed firms follow that technique of accounting choices that reflects the financial difficulties of their firms instead of following the technique that window dress the firm's financial situation. Jaggi and Picheng (2002) conduct a study by taking a sample of those firms that are facing financial difficulties. They suggested that managers of these firms follow those accounting technique that shows actual financial position of firm instead of following income increasing technique. Furthermore, they find mix relationship, both positive as well negative relationships. The study of DeFond and Park (1997) reveals the significant and negative relationship between leverage and earning management. Result of their study states that earning management decreases as level of debt increases. The study of Becker et al. (1998) documents negative relationship among leverage and earning management. Furthermore, they documented that level of managing earning decreases as level of leverage increases.

Similarly Dechow et al. (2000) conducts a study by taking a sample of firms having high accruals and sample of firms having low accrual and they compare it. They documented negative relationship. This refers that increase in level of leverage a decrease will occur in level of earning management. Beneish (2001) analysed different reasons for managing earnings that includes debt agreements. Considering that the money lender might use accounting numbers in order to meet some performance related goals. In addition to this she suggested that in order to avoid violation cost of debt, managers are motivated to manage earning by debt covenant incentives. Ke (2001) investigated that factors due to which firms show consecutive increase in their quarterly as well as in annually due to manipulation in their earnings. Firms are less involved in earning management that is monitored by financial analyst and creditors, although firms have taken high loans. Firms are less involved in earning management if they are properly monitored.

The ability of managers to opportunistically manage earning of their firms can be

limited or controlled through proper monitoring. Firms leverage level and abnormal accruals are inversely related (Chung et al., 2002). Chung et al. (2005) reexamine the relationship between debt and earnings management and documented that firms with high debt can be restricted from the excess use of discretionaryaccruals through proper monitoring by moneylenders and outside stakeholders. Zhong et al. (2007) conducted a study impact of monitoring by outsider stakeholders on earnings management. In their regression analysis they use leverage as a proxy to control monitoring effect exerted by money lenders. Result of their study shows a negative relationship between debt and discretionary power of manager over accounting reported earnings.

Lee et al. (2007) documents that there is negative relationship exist between leverage and earning management. Earning management will become higher when level of debt become lower. Jelinek (2007) conducted a study by taking a sample period of five years of those firms whose debt level increases in those five years and examines the impact of leverage increases on earnings management. She also documented inverse relationship between debt and earning management. Leverage increases leads to a decrease in earning management.

Above mentioned empirical evidences are also supported by different studies throughout the world. For example a study conducted in Chile by Iturriaga and Hoffmann (2005) analyzed negative relationship between level and earning management. Tendeloo and Vanstraelen (2005) conducted a study in Germany also indicates an inverse relationship between earning management and debt. Similar results are also documented by Wasimullah et al. (2010), that conducted a study on Pakistan textile sector.

However, based on Malaysian results, Aini, Takiah, Pourjalali, and Teruya (2006) documented in their study that leverage has no effect on EM in Malaysia. They also added that the Malaysian corporate sector is highly levered and dependent on commercial bank financing after the 1997 economic crisis. Furthermore, their study further added firms that faces financial difficulties may transpire managers to improve their performance through earnings management. This the ratio between total debt and total assets are termed as leverage. This ratio shows debt value of an organization, higher the value of ratio higher will be the debt of that organization. Therefore most of the firms are inclined to manipulate actual results in form of earning management in order to avoid violation of debt agreement (Wiyadi et. al,2015).

# Chapter 3

# Data Description and Methodology

### **3.1** Data Description

This study is going to analyse the impact of free cash flow, dividend, and financial leverage on earning management. The study uses the sample of 100 listed firms at Pakistan stock exchange (PSE) for the period of 12 years. The sample period starts from 1stJune 2006 to 31stJuly 2017. Financial firms (including banking sector, insurance and Muddarabah which are 25 in number) are removed because of difference in capital structure as they are mostly based on debt while the capital structure of nonfinancial firms is mostly based on equity. Similarly firms having incomplete data were also removed from the list which is 10 in number. Firms that were left are 65 in numbers.

The collection of data regarding free cash flow and financial leverage are collected from company's annual reports and FSA reports which are downloaded from company's official sites and SBP websites and Brecorder. Dividend data are taken from annual reports and business recorder website. Monthly stock prices are taken from the Pakistan stock exchange. Earning management is calculated through Modified Jones model and data is organized from different reports and authentic websites. The aim of this research thesis is to find that how free cash flow, dividend and financial leverage impact earnings management. Several researchers such as (Stuart Jones 2001, Etemadi and Shafakheibari 2011, Chung et al, 2005, Bhundia 2012) have conducted studies on finding a relationship between free cash flow and earnings management. All of these authors have found significant relationships among free cash flow and earning management. Similarly the relationship between dividend ratio and earning management is also analysed by many researchers like (Wen He et al; 2012, Barkhordar and Tehrani 2016) and through their studies they found a significant relation between dividend and earnings management. According to many researchers like (Gu et al; 2005, Toor et al; 2010. Jelinek, 2007) has analyzed the relationship between financial leverage and earnings management and have found a significant relationship between them.

On the basis of aforementioned studies, we can make a null hypothesis that free cash flows (such as cash flow to firm and cash flow to equity) dividend and financial leverage have no impact on earnings management while the alternative hypothesis can be that free cash flow, dividend and financial leverage have some impact on earnings management.

H1: There is a significant relationship between free cash flows and earning management.

H2: There is a significant relationship between dividend and earnings management.

H3: There is a significant relationship between financial leverage and earnings management.

## **3.2** Variables Descriptions

In this study earnings management is used as dependent variable. According to (Trisnawati et al 2015) earning management is calculated through discretionary accruals (DACC). Management behavior to manipulate earning either to increase or decrease profit is detected through discretionary accruals value (positive or negative). This study uses Modified Jones Model as this model have been used by

many studies, like(Barkhordar & Tehrani 2016, Trisnawati et al 2015, Nasution & Setiawan 2007, Herawaty, 2008).

Independent variables used in this study are free cash flow to firm (FCFF), free cash flow to equity (FCFE), dividend ratio and financial leverage while size and book to market ratio are used as control variables.

## 3.3 VARIABLES SPECIFICATION

#### **Dependent Variable:**

#### 3.3.1 Earnings Management

Most of the researchers (e.g. Healy, 1985; DeAngelo, 1986; Jones, 1991; Klein, 2002; Xie et al., 2003) stated in their studies that for earnings management the best indicator is discretionary accruals and those models are best that uses discretionary accruals for calculation of earnings management.Dechow et al., (1995) conducted a study that is based on relative performance of all the five models of earnings management that uses the discretionary accrual method. In their study, they documented that Jones and Modified Jones models are best for calculation of discretionary accruals with respect to other models. Furthermore, they added that the Modified Jones Model is the most powerful for testing EM (earnings management).

Dechow et al. (1995) improvised the Jones model by introducing the Modified Jones Model. The original Jones Model commits an error while estimating the value of earnings management when managers manage earnings while recognizing revenues. For this purpose, change in the value of trade debtors has also been included in the Modified Jones Model.

$$AACij,t = ACCRjk,t / TAjk,t-1 - NDA$$
 (1)

ACCRjk,t = Total accruals (calculated as "Net Income Before Extra-Ordinary Items – Cash Flow From Operations") TAjk,t-1 = Total assets

NDA = Non discretionary accurals calculated as {  $(\beta_1 [ 1 / TAjk,t-1 ] + \beta_2 [ ( \Delta REVjk,t - \Delta RECjk,t-1) / TAjk,t-1 ] + \beta_3 [ PPEjk,t / TAjk,t-1 ] }$  $\Delta REVjk,t = Change in net sales$  $\Delta RECjk,t-1 = Change in net receivables$ PPEjk,t = Property, plant and equipment

#### Independent Variables:

#### 3.3.2 Free Cash Flow

Most of the researchers have used free cash flow in order to get the surplus/excess free cash flow (Lehn &Poulsen, 1989). Lehn and Poulsen (1989) measured free cash flow as operating income before depreciation minus expenses such as tax expenses, interest expense and dividend. In our research study we use the aforementioned formula for calculating free cash flow which is in line with the studies of many researcher such (Bhundia 2012, Fabricio et al; 2014, ).

 $FCF_{i,t} = (INC_{i,t} - TAX_{i,t} - INTEXP_{i,t} - PSDIV_{i,t} - CSDIV_{i,t})/A_{i,t-1}....(2)$ 

Where:

FCF<sub>i,t</sub>: Free cash flow of company i in year t: INC<sub>i,t</sub>Operating profit before depreciation for company i in year t: TAXi,t: Total taxes payable in company i in year t: INTEXP I,t: Interest expense payable for company i in year t: PSDIV<sub>i,t</sub>:Payable preferred shareholders profit for company i in year t: CSDIV<sub>i,t</sub>: Payable ordinary shareholders profit for company i in year t: Ai,t-1: Total book value of assets in for company i in year t-1

#### 3.3.3 Dividend yield

Zunaidah and Fauzias (2008), documented that dividend is primarily measured by dividend yield (dividend to price ratio). Hence, dividend yield is calculated by

dividing the dividend per share on the closing market per share (DPS/MPS). In this study we use dividend ratio instead of payout ratio because of two reasons. The first is the divisor in dividend yield is market measure (share price) compared to accounting measure. the second reason is avoid negatively payout ratio problem resulting from negative earning (Schooley & Barney, 1994).

Dividend Yield =  $\frac{\text{Dividend}}{\text{Market share price}}$ .....(3)

#### 3.3.4 Leverage

Financial leverage is calculated by dividing total debt over total assets (book leverage). A survey conducted by Graham and Harvey (2001) justified the use of book values, as managers when setting firms financial structure focuses on book values. In addition to this Barclay et al (2003) were of the view that theoretically book leverage is preferable in regression for financial leverage. However, this study undertakes financial leverage as total debt divided by total assets which is in line with the studies of many researchers( like; Almazan et al ;2010, Vakilifard & Mortazavi, 2016, Ujah & Brusa, 2013 Kim & Yoon 2008).

Financial leverage = <u>Total debt</u>.....(4)

#### Control variables

The study uses size and BTMas a control variables. It is because firm size varies through out stock exchanges and may indicate conflicting results. Book to market ratio of firm may also distinguish the results from one another. Barkhordar & Tehrani (2016) conducted a study in Tehran stock exchange and used company size and book to market ratio as control variables in their study.

#### 3.3.5 Company size

Firm size can be measured by too many ways. As Nuryaman (2008) states that log of total sales is the measure of size of the firm. According to Halim, et al., (2005)

market capitalization is an effective measure to capture firm size. The average of net sales can be the proxy for capturing firm size (Brigham & Louis 2007). The study of Marihot and Doddy (2007); propose that better proxy to measure the size of company is the natural log of the total assets

This study uses the natural log of the total asset for the proxy of firm size

Size = Ln Total Assets.......(5)

#### **3.3.6** Book value to market value ratio:

The study use book to market ratio as a control variable because all firm has different value. Book to market ratio is calculated by dividing book value of equity on its market value. It indicates whether the security is undervalued or overvalued.

> Book to market ratio= <u>Book value of equity</u> <u>Market value of equity</u> .....(6)

### **3.4** Model Description

The study use modified john model for the study. According to variables impacts the regression analysis are taken as.

$$\begin{split} & \text{EMit}=\beta_0+\beta_1\,\text{FCFFit}+\beta_2\text{DIVit}+\beta_3\text{LEV it}+\beta_4\,\,\text{Size it}+\beta_5\,\,\text{BM it}+\epsilon\text{it}.....(I)\\ & \text{EMit}=\beta_0+\beta_1\,\text{FCFEit}+\beta_2\text{DIVit}+\beta_3\text{LEV it}+\beta_4\,\,\text{Size it}+\beta_5\,\,\text{BM it}+\epsilon\text{it}.....(II)\\ & \text{EMit}=\beta_0+\beta_1\text{FCF it}+\beta_2\text{Size it}+\beta_3\text{BM it}+\epsilon\text{it}\,\,.....(III)\\ & \text{EMit}=\beta_0+\beta_1\text{DIVRatioit}+\beta_2\text{Size it}+\beta_3\text{BM it}+\epsilon\text{it}\,\,.....(IIII)\\ & \text{EMit}=\beta_0+\beta_1\text{LEVit}+\beta_2\text{Size it}+\beta_3\text{BM it}+\epsilon\text{it}\,\,.....(IIII) \end{split}$$

Here

 $EM_{it}$  is the earnings management company of i in year of t

DIV  $\text{Ratio}_{it}$  is the Dividend Ratio of the company of i in year of t

 $FCF_{it}$ : free cash flow company of i in year of t  $FCFE_{it}$ :free cash flow to equity of company i in year t  $LEV_{it}$ : Financial Leverage company of i in year of t  $Size_{it}$ : company Size Company of I in year of t

 $\mathrm{BM}_{it}:$  book value to market value ratio company of i in year of t

# Chapter 4

# Results

The purpose of this section is to provide detailed empirical evidence of the study. These empirical evidences are structured to provide in depth results and interpretations which include descriptive statistics, correlations matrix, VIF tests and regression analysis.

### 4.1 Descriptive Statistics

Before going to run any test on the data, the behavior of data is examined to assure its accuracy. Descriptive statistics shows the general behavior of data including dependent variable as well as all independent variables. Here the descriptive statistic table contains the value of mean, minimum values, maximum values, skewness, kurtosis and values of standard deviations of all variables of the sample. The mean value shows the average of data where as standard deviation shows how it deviates from mean. Minimum and maximum value is the high and low difference in the data. Skewness shows that how the data look from its point. It is the measure of symmetry, data distribution from left to right. Kurtosis show the tail of the data either it is lightly or highly tailed from the center. Results of descriptive statistics of all independent and dependent variables are given below in Table 4.1. These variables are Earning Management (EM), Free cash flow (FCF), Free cash flow to equity (FCFE) Dividend (DIV), Leverage (LEV), book to market ratio (BTM) and Size.

Variables	DISC_ACCR	FCFF	FCFE	DIV_YEILD	LEV	BTM	SIZE
Mean	-0.2561	0.0540	0.0050	0.0485	0.4788	0.7857	23.8127
Median	-0.2638	0.0380	0.0000	0.0333	0.4736	0.5059	23.8583
Maximum	1.7985	0.6862	0.4928	0.4084	1.2236	7.3362	27.1646
Minimum	-1.849	-0.4957	-0.3354	0.0000	0.0038	-0.1654	19.3293
Std. Dev.	0.3132	0.1486	0.0964	0.0517	0.2292	0.9032	1.3506
Skewness	0.3735	0.3174	0.6350	2.0086	0.1362	3.0942	-0.1372
Kurtosis	10.4485	4.8897	6.8579	9.6107	2.1331	16.7810	2.8523

TABLE 4.1: Descriptive Statistics

From Table 4.1 the results state that the mean value of the dependent variable that is the Earning management for the selected sample of firms is (-0.2561) with a standard deviation of about 31%. This average implies that about (25%) on average of the earnings management practices practiced by the sampled firms are having a downward direction, of earning management. The maximum and minimum value of Earnings management are 1.7985 and -1.8490 which mean that the maximum growth or upward and minimum or downward trends in earnings management over the time period. The value of skewness is 0.3735, which shows that data is distributed toward positive directions. The value of kurtosis is 10.4485, which shows that the data is on a high peak.

While moving toward independent variables the mean value of FCFF free cash flow, is 0.0540, which means the average increase of 5% in FCF having a standard deviation value of 0.1486. The maximum and minimum values are 0.6862 and -0.4957, which shows a high increase and decrease in the value of FCF over the time period. The value of skewness and kurtosis are 0.3174 and 4.8897 which shows that date are on high peak and positive side. Similarly the mean value of FCFE (Free cash flow to equity) Which is the second dependent variable 0.0050 which shows an average increase of .05% in FCFE with standard deviation of 0.0964. The maximum and minimum values are 0.4928 and -0.3354, which shows a high increase and decrease in the value of FCFE over the time period. The value of skewness and kurtosis are 0.6350 and 6.8579 which shows that date are on high peak and positive side The mean value of Leverage is 0.4788 with a standard deviation of 22%. This means the average debt of the firm are 47%, which means that the average of the firms depend a little bit more on equity rather than debt. The maximum and minimum value 1.2236 and 0.0038, which mean that maximum and minimum debt level of the firms. The value of skewness is 0.1362, which show that is distributed on the positive side. The value of kurtosis is 2.1331.

The average value of Dividend yield is 0.0485 having a standard deviation of 0.0517. The maximum value is 0.4084 whereas minimum value 0.0000. The skewness value of Dividend yield is 2.0086, which show that data is positively distributed. The values of kurtosis are 9.6107.

The average value of book to market ratio and firm Size 0.7857 and 23.8127 having a standard deviation of 0.9032 and 1.3506. Similarly the maximum values of BTM and size are 7.3362 and 27.1646. While the minimum values of BTM and size are -0.1654 and 19.3293 respectively. The values of their skewness are 3.0942and - 0.1372and the values of their kurtosis are 16.7810 and 2.8523 respectively.

# 4.1.1 CORRELATION MATRIX AND MULTICOLLINEAR-ITY

The potion of research study aims to check the relationship between dependent and independent variables as well as the independent variables among each other and helps to check for the multicollinearity problem. Correlation Matrix is a technique used to measure the relationship of the variables. It explains the dependency of multiple variables at the same period. The strengthened and directional relationship among the variables is measured through these techniques and it is a wise approach used in the studies. This shows the main relationship between variables and its values ranges between -1 to +1, which tells the degree of association between the variables either positive or negative. Value closer to +1 depicts that the two variables are positively related / effecting each other, whereas the value below 0 depicts that the two variables are negatively related / effecting each other. The correlation between independent variables should not exceed 0.8 to shows no multicollinearity problem among the variables. The result of the correlation matrix is given below in the table 4.2

Variables	FCFE	FCFF	LEV	DIV_YEILD	BTM	SIZE
FCFE	1.0000					
FCFF	0.5474	1.0000				
LEV	-0.0227	-0.144	1.0000			
DIV_YEILD	-0.016	0.1528	0.0869	1.0000		
BTM	-0.0747	-0.2213	-0.0346	0.0325	1.0000	
SIZE	-0.0451	-0.1164	0.2927	0.0967	-0.0191	1.0000

TABLE 4.2: Matrix of Correlation

Table 4.2 indicates the relationship among the dependent variables as well multicollinearity problem. The values of FCFE and FCF are 1.0000 and 0.5474. This indicates that the relationship of Earning Management (EM) with LEV & FCF is negative. The increase in leverage and Free cash flow causes reduction in earning management and vice versa. The values of DIV and BTM are 0.0475 and 0.1144 which indicate a positive relationship of Earning management with dividend and book to market ratio. The increase in book to market ratio and Dividend will causean increase in earnings management. The relationship of earning management and size is negative as the value of size is -0.0410. This indicates that increase in firm size will reduce earning management and vice versa. As the values of all variables are less than 0.8, this proves that there is no problem of multi collinearity.

Another well-known method to check the multicollinearity of among variables is the Variance Inflation factor (VIF) as recently suggested by too many researches (Hossain and Hammami 2009 and Al Shammari 2008). Analysts assume to prove that the problem of multicollinearity is not exists, the value of VIF should not exceed 10. VIF measures the impact of collinearity between variables and its values must equal to or grater than 1. However there is no any formal limit value of VIF and in weak model above 2.5 may relate this problem and to be further investigated (Muller and Fetterman 2003). But mostly researchers identify the range between 1 to 10 for better models. VIF results is given below in the table

Variable	Variance	VIF
С	0.089527	
FCFE	0.016977	1.6048
FCFF	0.009701	1.7053
LEV	0.004764	1.7053
DIV_YEILD	0.058158	1.0575
BTM	0.000237	1.0953
SIZE	0.000162	1.0757

TABLE 4.3: variance inflation factors VIF

As VIF measures the impact of collinearity between variables and its values must equal to or greater than 1. However there is no any formal limit value of VIF and in weak model above 2.5 may relate this problem and to be further investigated (Muller and Fetterman 2003). But mostly researchers identify the range between 1 to10 for better models. In the above table 4.3, the VIF values of all variables i-e FCFE, FCFF, LEV, DIV, BTM and Size are 1.6048, 1.7053, 1.7053, 1.0149, 1.0575, 1.0953 and 1.0757 respectively. As all the values are greater than 1 so there is no any multi collinearity problem among these variables.

# 4.2 Regression Analysis

#### 4.2.1 Hausman Test

As the study uses panel data analysis, Hausman Test is conducted to see whether fixed effect model or random effect model should be used. From Table 4.2.1., it is evident from the significant Prob. value that we should use fixed effect model. Thus the later regression are done through fixed effect model

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TABLE 4.4
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Correlated Random Effects - Hausman Test Equation: Untitled Test cross-section random effects

Test Summary	Chi-Sq. Statistic	-	Prob.	
Cross-section ran- dom	18.23191	5	0.0027	

Cross-section random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
FCFF	-0.31819	-0.2959	0.001221	0.5235
LEV	-0.07515	-0.2939 -0.12322	0.001221 0.000369	0.0235 0.0124
DIV	-0.0569	-0.05165	0.000245	0.7371
ТА	0.062407	0.009596	0.0013	0.143
BTM	-4.6E-05	-0.00014	0	0.3387

# 4.2.2 Regression analysis for FCFF, DIV, LEV, Size and BTM with EM

Variable	Coefficient	Std. Error	t-Statistic	Prob.
С	-1.7092	0.9864	-1.7328	0.0837
FCFF	-0.3182	0.1059	-3.0057	0.0028***
DIV	-0.0569	0.05	-1.1388	0.2553
$\mathbf{LEV}$	-0.0751	0.0386	-1.9478	$0.0519^{*}$
$\mathbf{TA}$	0.0624	0.041	1.5211	0.1288
$\operatorname{BTM}$	0	0.0004	-0.1097	0.9126
R-squared	0.3059			
Adjusted R-squared	0.2151			
S.E. of regression	0.4353			
Sum squared resid	105.751			
Log likelihood	-331.823			
F-statistic	3.3689			
$\operatorname{Prob}(\operatorname{F-statistic})$	$0.0000^{***}$			
Durbin-Watson stat	2.099			

TABLE 4.5

\* = Significant at 10% level

 $^{**}$  = Significant at 5% level

 $^{***}$  = Significant at 1% level

Regression results as shown in the Table 4.4 are consistent with the literature. The relation of free cash flow to firm (FCFF) with Earnings Management is significant at 1% with a negative relation that are consistent with the results of Nekhili et al. (2015) who found that Free Cashflow and Earnings Management are negatively related to each other in the presence of corporate governance mechanism and ownership features. According to them, corporate governance and ownership features play monitoring roles to reduce Earnings Management in the presence of Free Cashflow. Therefore, on the basis of our empirical results, we can say that, as there is a monitoring role of corporate governance and ownership features involved in free cash flow to firm will lessen earnings management practices.

Along with studies showing a positive relation between leverage and earnings management (e.g. Press and Weintrop, 1990; Sweeney, 1994; DeFond and Jiambalov, 1994), there are numerous studies that show a negative relation between leverage and earnings management as discussed in the literature review portion of this thesis. The study of DeFond and Park (1997) reveals a significant and negative relationship between leverage and earning management. Result of their study states that earning management decreases as level of debt increases. The study of Becker et al. (1998) documents negative relationship among leverage and earning management. Furthermore, they documented that level of managing earning decreases as level of leverage increases. Our results show a same negative pattern between leverage and earnings management as the mentioned studies with a high significance at 90% confidence interval.

After adjusting for heteroskedasticity through White's test and autocorrelation, the results show that overall model (through F-statistic) is significant at 1% level. Durbin Watson stats is also at 2.099 whereas the Adjusted R-squared value shows that overall prediction power of the model is 22%.

# 4.2.3 Regression analysis for FCFE, DIV, LEV, Size and BTM with EM

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-2.1961	0.9697	-2.2648	0.0239
FCFE	-0.5995	0.1435	-4.1771	0.0000***
DIV	-0.0633	0.0494	-1.2823	0.2003
$\mathbf{LEV}$	-0.1027	0.0393	-2.6116	$0.0093^{**}$
$\mathbf{T}\mathbf{A}$	0.0828	0.0404	2.0494	$0.0409^{*}$
BTM	0	0.0004	0.0291	0.9768
R-squared		0.3161		
Adjusted R-squar	red	0.2266		
S.E. of regression		0.4321		
Sum squared resid	b	104.2046		
Log likelihood		-327.1687		
F-statistic		3.5323		
Prob(F-statistic)		$0.0000^{***}$		
Durbin-Watson st	tat	2.099		

TABLE 4.6

\* = Significant at 10% level

\*\* =Significant at 5% level

\*\*\* = Significant at 1% level

The relation of FCFE with Earnings Management is significant at 1% Significance level with a negative relation that are inline with the results of Nekhili et al. (2015) who found that Free Cashflow and Earnings Management are negatively related to each other in the presence of corporate governance mechanism and ownership features. According to them, corporate governance and ownership features play monitoring roles to reduce Earnings Management in the presence of Free Cashflow. On the other hand, there are numerous studies available that show that Free Cashflow lead to higher Earnings Management whereas the individual regression of FCFF reveals that there is no significant relation between FCF and Earnings Management. Therefore, on the basis of our empirical results, we can say that, as there is a monitoring role of corporate governance and ownership features involved in free cashflow to equity, FCFE will lessen earnings management practices.

Similarly the relationship of financial leverage and earning management is bidirectional. Some authors are of the view that the relationship of financial leverage is positive and significant while on other hand this relationship is negative and significant. Hence the results of our research thesis report negatively significant relationship between financial leverage and earnings management. An increase in financial leverage would cause a decrease in earning management. Hence the results of our is consistent with the studies of many authors such as (Zakaria et al., (2015), Toor et al., (2010), Dechow et al., (2000), Zhong et al. (2007)). Wasimullah et al., (2010) conducted a study in context of Pakistan also reports in their study that there is negative and significant relation exists between leverage and earning management.

In above analysis the value of Size (TA), which is a control variable of the study shows a positive and significant relationship with EM. The study of Usman et, al. (2015) is consistent to with the findings of our research. This shows that size of firm affects the relationship of independent variables with earning management. Siregar and Utama (2008) in the empirical analysis of their study a positive relationship of firm Size with earnings management.

# 4.2.4 Regression analysis for FCFE, Size and BTM with EM

Variable	Coefficient	Std. Error	t-Statistic	Prob.
С	-3.2628	0.9042	-3.6084	0.0003
FCFE	-0.4342	0.1291	-3.3633	$0.0008^{***}$
TA	0.1251	0.038	3.2941	$0.0010^{***}$
BTM	0	0.0004	-0.0036	0.9971
R-squared		0.305		
Adjusted R-sq	uared	0.2169		
S.E. of regressi	ion	0.4348		
Sum squared r	esid	105.885		
Log likelihood		-332.225		
F-statistic		3.4618		
Prob(F-statisti	ic)	$0.0000^{***}$		
Durbin-Watson	n stat	2.0145		

TABLE 4.7

\* = Significant at 10% level

\*\* = Significant at 5% level

\*\*\* = Significant at 1% level

The relation of FCFE with Earnings Management is significant at 1% Significance level with a negative relation that are inline with the results of Nekhili et al. (2015) who found that Free Cashflow and Earnings Management are negatively related to each other in the presence of corporate governance mechanism and ownership features. According to them, corporate governance and ownership features play monitoring roles to reduce Earnings Management in the presence of Free Cashflow. On the other hand, there are numerous studies available that show that Free Cashflow lead to higher Earnings Management whereas the individual regression of FCFF reveals that there is no significant relation between FCF and Earnings Management. Therefore, on the basis of our empirical results, we can say that, as there is a monitoring role of corporate governance and ownership features involved in free cashflow to equity, FCFE will lessen earnings management practices. In above analysis the value of Size (TA), which is a control variable of the study shows a positive and significant relationship with EM. The study of Usman et, al. (2015) is consistent to with the findings of our research. This shows that size of firm affects the relationship of independent variables with earning management. Siregar and Utama (2008) in the empirical analysis of their study a positive relationship of firm Size with earnings management.

# 4.2.5 Regression analysis for FCFF, Size and BTM with EM

37 11	C			
Variable	Coefficient	Std. Error	t-Statistic	Prob.
С	-2.6748	0.8874	-3.0142	0.0027
FCFF	-0.2458	0.0972	-2.5281	$0.0117^{**}$
$\mathbf{TA}$	0.1009	0.0373	2.7076	$0.0070^{***}$
BTM	0	0.0004	-0.1064	0.9153
R-squared	0.299			
Adjusted R-squared	0.2101			
S.E. of regression	0.4367			
Sum squared resid	106.805			
Log likelihood	-334.959			
F-statistic	3.364			
Prob(F-statistic)	$0.0000^{***}$			
Durbin-Watson stat	2.0288			

TABLE 4.8

\* =Significant at 10% level

\*\* = Significant at 5% level

\*\*\* = Significant at 1% level

Regression results as shown in the Table 4.8 are consistent with the literature. The relation of free cash flow to firm (FCFF) with Earnings Management is significant at 1% with a negative relation that are consistent with the results of Nekhili et al. (2015) who found that Free Cashflow and Earnings Management are negatively related to each other in the presence of corporate governance mechanism and ownership features. According to them, corporate governance and ownership features play monitoring roles to reduce Earnings Management in the presence of Free Cashflow. Therefore, on the basis of our empirical results, we can say that, as

there is a monitoring role of corporate governance and ownership features involved in free cash flow to firm will lessen earnings management practices.

In above analysis the value of Size (TA), which is a control variable of the study shows a positive and significant relationship with EM. The study of Usman et, al. (2015) is consistent to with the findings of our research. This shows that size of firm affects the relationship of independent variables with earning management. Siregar and Utama (2008) in the empirical analysis of their study a positive relationship of firm Size with earnings management

#### 4.2.6 Regression analysis for LEV, Size and BTM with EM

Variable	Coefficient	Std. Error	t-Statistic	Prob.
С	-2.2408	0.9813	-2.2834	0.0228
$\mathbf{LEV}$	-0.0322	0.0356	-0.9027	0.3671
$\mathbf{TA}$	0.0829	0.0409	2.0264	$0.0432^{*}$
BTM	-0.0001	0.0004	-0.1715	0.8639
R-squared	0.292			
Adjusted R-squared	0.2023			
S.E. of regression	0.4389			
Sum squared resid	107.8673			
Log likelihood	-338.0852			
F-statistic	3.2533			
Prob(F-statistic)	$0.0000^{***}$			
Durbin-Watson stat	2.1589			

TABLE	4.	9
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\* = Significant at 10% level

\*\* =Significant at 5% level

\*\*\* = Significant at 1% level

Table 4.9 shows that Leverage is insignificant where as the value of Size (TA) is positively significant at 90% confidence level. The study conducted on Pakistan textile sector by Usman et, al. (2015) also documented positive and significant relation between leverage and EM. This shows that size of firm affects the relationship of independent variables with earning management. Siregar and Utama (2008) in the empirical analysis of their study a positive relationship of firm Size with earnings management.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
С	-2.4537	0.8965	-2.7371	0.0064
DIV	-0.075	0.0499	-1.5016	0.1338
$\mathbf{T}\mathbf{A}$	0.0914	0.0376	2.4283	$0.0155^{**}$
BTM	-0.0001	0.0004	-0.1534	0.8782
R-squared	0.2938			
Adjusted R-squared	0.2043			
S.E. of regression	0.4383			
Sum squared resid	107.591			
Log likelihood	-337.275			
F-statistic	3.2819			
Prob(F-statistic)	0			
Durbin-Watson stat	2.1267			

#### 4.2.7 Regression analysis for DIV, Size and BTM with EM

\* = Significant at 10% level

\*\* = Significant at 5% level

\*\*\* = Significant at 1% level

In Table 4.10 Dividend, Size and BTM is regressed with earning management. The results indicates that Dividend and BTM is insignificant where as the value of Size (TA) is positively significant at 95% confidence level. The study conducted on Pakistan textile sector by Usman et, al. (2015) also documented positive and significant relation between leverage and EM. This shows that size of firm affects the relationship of independent variables with earning management. Siregar and Utama (2008) in the empirical analysis of their study a positive relationship of firm Size with earnings management.

# Chapter 5

# CONCLUSION & RECOMMENDATION

## 5.1 CONCLUSION

Principle agency relationships in firms were highlighted by Jensen and Meckling (1976). Agency issues were further explained by Fama and Jensen (1983) regarding separation of ownership and control. The interests of agents and principles are not aligned because of the presence of earnings management practices. Therefore it becomes vital to monitor or control the managerial decision in order to avoid earnings management. Thus, it provides a rationale to investors to investigate the factors that lead to earning management. Enough literature is available on the stated topic across the world, especially the developed countries, but no significant study has been found on this topic in Pakistan. Therefore, this study investigated the impact of FCF, financial leverage, and dividend on earnings management while discretionary accruals are used as a proxy for earning management. In our study Modified Jones Model is used in order to calculate discretionary accruals. A sample of 100 listed firms from 2006 to 2017 on the Pakistan Stock Exchange has been selected.

The main purpose of this research study is to examine the impact of free cash flow to equity, free cash flow to firm, dividend ratio, and financial leverage on earnings management. While book to market ratio and the size of the firms are used as control variables. Result of this research study reveals negative and significant relationship among free cash flow to equity (FCFE) and earning management. The results of our study are supported by the study of Nekhili et al. (2015). They also reported negative and significant relationship of FCFE and earnings management. Similarly the study of (Dechow, GE, Shcrand, 2010) there is negative and significant relationship exist between free cash flow and earning management. While on other hand the results of our study show that the relationship of free cash flow to the firm and earning management is negative and significant. The results of the study is in line with the findings of Agustia (2013) , Amertha et, al. (2014) and Susanto and Djashan (2017).

Similarly the relationship of financial leverage and earning management is bidirectional. Some authors are of the view that the relationship of financial leverage is positive and significant while on other hand this relationship is negative and significant according to literture. Hence the results of our research thesis report negatively significant relationship between financial leverage and earnings management. An increase in financial leverage would cause a decrease in earning management. Hence the results of our is consistent with the studies of many authors such as (Zakaria et al., (2015), Toor et al., (2010), Dechow et al., (2000), Zhong et al. (2007)). Wasimullah et al., (2010) conducted a study in context of Pakistan also reports in their study that there is negative and significant relation exists between leverage and earning management.

With reference to dividend the findings of study indicate an insignificant results.this shows that dividend has no effect on EM. Many studies undertaken Pakistan stock market also shows no effect of Dividend pay out on EM, like the study of Shah, Yuan and Zafar (2010); and Saleem (2017).

However control variables are size and book to market ratio. Size is calculated as total assets log and in our study it is found as positive and significant. The study conducted on Pakistan textile sector by Usman et, al. (2015) also documented positive and significant relation between leverage and EM. This shows that size of firm affects earning management. Furthermore, Siregar and Utama (2008) in the empirical analysis of their study indicate positive relation of firm Size with earnings management.Similarly BTM is also found to be insignificant in our study.

## 5.2 RECOMMENDATION

On the basis of our study, we suggest the following recommendations to those who want to extend this study.

- Most of the literature is available on developed economies whereas the developing economies have not been focused the same way, especially the under developed countries. Researchers may use the same methodology and variables to study the same in under developed and developing countries.
- Our data includes a time period from 2006 to 2017. However, a new Companies Act, 2017 has been introduced. Although our study does not include its impact but future studies may also include the new act as an event study to see the impact of the new Companies Act, 2017 before and after its introduction.
- Researchers may also extend the time frame of the study and they may also include more variables.

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