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IMPACT OF EARNINGS MANAGEMENT ON FIRM VALUE WITH MEDIATING ROLE OF EXCESS CASH HOLDING "

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EVIDENCE FROM PAKISTAN, INDIA, AND BANGLADESH



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## **Abstract**

This study examines how excess cash plays a mediating role between earnings management and firm value on companies operating in Pakistan, India and Bangladesh. Our data consists of sample of 520 observations covering 45 firms listed in the Karachi, Bombay and Dhaka Stock Exchange respectively in the period from 2011 to 2019. We have used OLS regression analysis. We found that excess cash holding has a mediating impact on firm value and earning management confirming pecking order theory. Our results show that earnings management has a positive impact on firm value on companies in Pakistan, India and Bangladesh which supports the efficient earnings management view. We also found that managers working in Pakistani, Indian and Bangladeshi firms are less likely to use excess cash for manipulating earnings. We provide empirical evidence that firms that hold excess cash seem to hold it for precautionary purpose rather than for earnings management and the excess corporate liquidity of Pakistani, Indian and Bangladeshi firms are used for value-enhancing activities. Our study merges two areas of corporate finance by incorporating agency problems concerning earnings management, firm value and cash holdings.

Keywords: Earnings Management, Excess Cash holding, Firm Value, Pakistan, India, Bangladesh

## **CHAPTER 1: INTRODUCTION**

### **Background**

Managers are required to select accounting standards to report the firm performance and financial position that best match the firm's business economics. Regrettably, this opportunity is misused by some managers and they choose reporting methods and estimates that is not true representative of firm's underlying economic activities. The result of this activity may be in production of picture of firm's

performance that is not true and fair. Managers of the firm will try to use every mean to keep control over their profit announcement Beneish, (2001) stated that this control can be easily exercised on accrual based earnings rather than through cash flow activities.

The information regarding the financial position of the company is communicated by the managers of the company through financial statements which are prepared on the basis of International Financial Reporting Standards (IFRS). The objective of the financial statement is to provide information truly and fairly and in accordance with the guidance provided by the international accounting standards, financial position, results of operations performed, and other changes in financial position of the company during that specific fiscal year. The decision of the stakeholders of the firm, like resource allocation, is based on the information communicated by the management of the firm in the form of financial statements ; whereas the basis of preparation of these financial statements is guideline given by the accounting standards that provide a great deal of flexibility and discretion to the management of the firm in preparation of these reports (Glaeser & Guay, 2017). Management on the basis of the flexibility in accounting standards tries to manage or manipulate earning. The role of these earnings manipulation is to add value to the firm (Lo, Ramos, & Rogo, 2017).

Earnings management has two types based on the nature of activities performed for manipulation. In accrual earnings management timing of expenses and revenue recognition are adjusted from one period to another for the sake of meeting desired earnings targets. The desired earning target can be achieved either by delaying the recognition of expense or advancing the recognition of revenue. On the other hand the second type of manipulation is done by managing real activities such as the expenses are decreased in order to increase profit (Merritt, 2019). Manipulation through real activities is defined by Roy Chowdary,(2006) as : “Management actions that deviate from normal business practices, undertaken with the primary objective of meeting certain earnings thresholds”. Firm can achieve short term benefits through real activity manipulation by increasing cash flow from operation. However these short term benefits of real earnings management add long term value to the firm. As the nature of the businesses is different it is not possible to compare their value by the same methodology. However, analysis of trend in which company makes its profit can be used as a method to measure the value of the firm.

Earning management can add positive or negative value to the firm depending upon the way it is used by the management. Positive earning management activities are those that are performed to add value to the firm. On the other hand, negative earning management activities are those that seem to be adding in value of the firm but actually are to fulfill the personal interest of the management. So it can be easily said that the conflict of interest between stakeholders and management as a result of implementation of earnings management. Separation of roles between agent and the Principal give rise to information asymmetry which leads to a weak decision making process (Siallagan and Machfoedz, 2006).

Managers try to hold cash optimal level of cash as excessive cash have negative impact on profitability and ultimately on the value of the firm (Blanchard, Lopez-de-Silanes, and Shleifer 1994). Excessive cash holding give rise to agency problem as it may result in conflict of interest of principal and the agent. An et al. (2014) report that CEOs tend to manage earnings by holding cash upwards to either meet or to exceed analyst forecasts regarding the firm's value.

Cash holdings and determination of optimum cash policy is one of the most challenging problems in finance (Myer, 1996). By holding cash firms finds itself independent to meet various activities associated with production and operations and thereby reduce the risk of financing from outside. By holding excess amount of cash the rate of return on investment will be reduced which would be showing the self-interest behavior of shareholders. The association between excess cash and earnings management is an interesting and vital aspect in determining the success of firms. Managers are mostly interested in earning management to manipulate the information and show a rosy picture to the share holders (Halpin-Healy & Zhang, 1995; Burgstahler & Dichev, 1997; Thenmozhi, Saravanan, & Sasidharan, 2019). Earnings management occurs when managers manipulate the company's earnings either to mislead stakeholders to prove the expectations true regarding the future of the firm or to influence the future outcomes. Often managers are found engaged in earnings management that could be misleading the stakeholders, which is an important matter of concern for both users and investors. Usually there are three techniques which are generally used by the managers generally for earnings management. The first technique is the accrual-based method, which is used by the managers by manipulating the earnings by taking the difference of net income and cash flows. The secondly used method is the real activities earnings management, where cash flow statements are used by the managers for manipulation to make operating decisions be up to

the desired financial results. The third method which is used is classification shifting or it can be called income smoothing, as per which expenses are shifted to the income statement as unique items to increase or decrease earnings to achieve the desired results. Normally, when the expectations of the shareholders are high and expenses of the company are also high; so at that time to management to prove their skills up to the expectations of the stakeholders shift expenses from one period to another period. Earning management is not considered to be a criminal activity, but often, it is reflects the opportunistic behavior of managers (Menicucci, 2019).

### **Problem Statement**

Few studies have examined the how holding cash would have an impact on firm value (Dittmer, 2005; Pinkowitz et al., 2005; Harford, 2009) and few have discussed the reasoning why firms hold cash. As discussed by some writers that cash is held by the firm for various motives such as precautionary, speculative and transactional motives (Opler et al., 1999; Bates, 2009). As per (Jensen, 1996); (Cai, Luo, & Wan, 2012) by holding excess cash conflict of interest can be reduced between investors, but this excessive cash can be used by the managers for their own needs, which has a negative impact on firm value (Jensen, 1986). In some cases, firms with excess cash may use this excessive amount to finance their affiliates during financial stress, which may enhance firm value. Myers and Majluf (1985) suggest that information asymmetry between the firm and its external investors can raise the cost of external financing and this may become source of incentive for the managers to hold more cash, which is consistent with pecking order theory. According to (Jensen, 1975), firms hold cash to offset various operational risks and holding of excess cash may also lead to a conflict of interest between the managers and stakeholders due to the managerial opportunism. Probably, managers may engage in earnings management due to managerial opportunism which is harmful to the firms.

Various studies done before have focused on the how earnings management have an impact on compensation contracts (Healy, 1985; Watts & Zimmerman, 1986; Jones, 1991), government regulatory considerations (Dechow, Sloan, & Sweeney, 1995), corporate governance variables like board composition and audit quality (Xie et al., 2003; Garcia-Osma & Nogueira, 2007; Siregar & Utama, 2008;) and firm value (Gordon et al., 2003; Kolbeck & Mayhew, 2004; Ryngaert & Thomas, 2007). Few studies have investigated that whether earnings management leads to the expropriation of rights of minority

stakeholders in the context of data taken from China (Chen et al., 2011) and Hong Kong (Ge et al., 2012; Lo et al., 2017). Some authors also have reported that earnings management is value-destroying (Munir & Gul, 2010; Hu et al., 2012) as the managers are more concerned to attract and retain majority shareholders than minority shareholders; in doing so some decisions might be taken to prepare financials that are totally in the interest of majority stake holder. But the linkage of excessive cash holding to earnings management is unknown and is not investigated by any author. We are going to provide insight into this issue by examining the association between earnings management and firm value with mediating role of excessive cash holding.

Managers can use earnings management for the purpose of demonstrating and accomplishing their opportunistic behaviors. Operations that deviate from routine business operations can effectively be used as means to manage earnings. This study will fill an important research gap by determining the impact of earnings management on firm value also taking into consideration the mediating role of excessive cash holding and its impact on third world developing countries like Pakistan, India and Bangladesh. It will also take into account how board size, firm size, dividend policy and CEO characteristics are going to affect the decision of excessive cash holding and ultimately firm value.

## **Research Questions**

**Following are the specific research questions:**

- What is the impact of earning management on firm value?
- How excessive cash holding can have an impact on firm value?
- What impact earning management may have on value of the firm with mediating role of excessive cash holding?

## **Research significance**

Rules and regulations are weak in developing countries like India, Pakistan and Bangladesh. Corruption level as also identified by Transparency International (2012) is very high in these countries. It was found by Dyreng, Hanlon & Maydew, (2011) that earning management is more commonly used in countries where rules and regulations are weak and politicians have strong influence in companies as compared to

companies operating in countries where the rules and regulations are strong. It was also found by them that profitable companies with huge amount of tax payable seems to be more involved in earning management. In this study we will explore the relationship between earning management, firm value with mediating role of excessive cash holding by taking a sample of companies operating in Pakistan, India and Bangladesh. We have chosen to take sample from these countries because companies operating in these countries have been tarnished for being involved in manipulating income through earning management to achieve desired targets. Varma,(2012) in his findings state that managers of the Indian companies do manipulation in income not only to achieve personal gains like performance based incentives etc but also under the pressure to achieve specified earning targets as per the desire of the investors. The pervasiveness behind using earning management in countries like Pakistan, India and Bangladesh can be due to factors like flexibilities provided by regulatory authorities, information asymmetry, flexibility in usage of different accounting standards for the same transaction etc. Keeping in view the importance and excessive use of earnings management in real life, this study will incorporate earnings management and intends to find implications of these earnings manipulations for firm value and how these implications are going to affect decision of holding excess cash in perspective of economy of Pakistan India & Bangladesh (PIB).

We also need to understand that what is the need of holding excessive cash when does not seem to be adding value to the firm. Through this study we will also find out how excessive cash holdings play a mediating role between earning management and firm's value. We will also be able to find whether the how much impact CEO has on cash holding decision making and does this decision making will have an affection earning management and firm's value if he is also holding a position in board of directors.

### **Research Objectives**

Following are the research objectives of this study:

- To determine the impact of earning management on firm's value
- To find out the impact of earning management on firm value taking into consideration the affect of excessive cash holding
- To examine the relationship between real earning management activities and its impact on excess cash holding

## **Definitions of study variables**

### **Earning Management**

Schipper, (1989) argued that the manipulation of operational activities in order to purposefully intervene in financial reporting and achieve personal benefits should be defined as a type of earning management.

Roy Chowdhury (2006) defined real activity manipulation as: “Management actions that deviate from normal business practices, undertaken with the primary objective of meeting certain earnings thresholds”. Real activity manipulation may have negative implications for firm value because actions that are taken by the management to boost earnings may hurt long term cash flows and future value.

Real-activities based manipulation is gaining popularity over accrual earnings management as it is hard to detect even by analysts and auditors. It is also new as compared to accrual earnings management so there is scarcity of evidences particularly in case of emerging markets. Earning management is also defined as a way of distorting generally accepted accounting principles.

### **Firm Value**

Firm value is the concept that represents the value of the firm at that specific time period. It can said that that it is the amount that someone might be willing to pay to purchase or take over that specific business. There are two ways of measuring firm value; it can be measured either on the basis of book value or on the basis of market value. The market value is generally presumed to be the actual worth of the business .Total worth of the company can be measured by the firm value (FV), which is commonly used as more inclusive alternative to equity market capitalization. Company when is calculating its worth includes its market capitalization, short term and long term liabilities as well as amount of cash held in hand by the company. Firm value is often used for as the basis for calculating financial ratios on which the performance of the company is determined. Value of the firm can be estimated either by book value or market value. Book value of the firm is calculated from the values that are reflected in the financial statements of that specific firm during that specific period. It is calculated by taking a difference between the assets and liabilities of a firm in accordance with the values recorded in the balance sheet. True worth of the business will be reflected when liabilities of that business are netted off from its assets. Market capitalization is most commonly known as market value of the firm and is measured by



value of shares in stock exchange. Value of the share is calculated by multiplying the company's outstanding shares by its current market price. Measuring worth of the business by market value and by book value are two different approaches and accordingly there is possibility that results of book value of the firm and market value of the firm will be different at the same point of time.

### **Cash holding**

Cash is defined as physical form of currency. Cash holding means holding an additional amount of cash beyond what a company normally needs to have to meet its needs. Holding cash more than requirement shows that company is in favor of keeping more cash rather than investing elsewhere. As a general guideline, it is preferred that a company can hold cash on hand equals to or more than 20% of its revenue. The excessive cash holding by the firm is measured by taking a difference of value of actual cash holding minus estimated cash holding. Holding excess cash has an adverse effect and that is that company has to pay more interest on debt that necessary. If the company is holding piles of cash it can be seen from high debt balances that the company is holding too much cash in hand.

It has been found out in various studies that a company might be missing significant opportunities if it is holding cash at the expense of investment in new product research and development, business expansion and marketing etc. All of these types of investments can dole out to be a catalyst for continued business growth (Mikkelson & Partch,2003).

### **Plan of the Study**

Five chapters are included in this thesis. First chapter gives introduction of the paper which also explains the background, problem statement, objectives and connotation of carrying out the study. Main study variables will also be defined in the first chapter. Second Chapter includes literature review, third chapter throws light on sample data that is taken for study and methodology used to analyze the data, Fourth chapter shows findings and fifth chapter is the last chapter that gives conclusion of the whole study and discusses the insinuation of the study.

## CHAPTER 2: LITERATURE REVIEW

There are many studies that show that managers manage earnings for incentives (Lo, Ramos, & Rogo, 2017). One of the most widely investigated incentives for the manager to achieve targeted profit is to obtain loan from financial markets. Others are personal motivations of the managers includes salary rise and promotions. Numerous incentives for the managers have been investigated in various scenarios (Walker, 2013).

Earning management is widely used to manipulate the financial results of firms both in developing and developed countries depending on the nature and motives of the managers behind using earning management. One of the reason behind using earning management may be the capital market implication like affecting the stock price, initial public offering, seasoned equity offering, stock based acquisition etc (Suda & Shuto, 2005; Burgstahler & Dichev, 1997; (Teoh, Wong, & Rao, 1998; Kim and Park, 2005; Cohen & Zarowin, 2010) .Other may include contract based motives like avoiding the debt covenant violation, decreasing the cost of debt. The opportunistic motives for satisfying self interest of the managers like increasing bonus, pay, promotion and other perquisites and stock options etc., meeting or beating earning forecast by investors and creditors to satisfy transaction, cost contracting or allocation of resource motives may also be considered as motives behind using earning management (Burgstahler & Dichev, 1997; Degorge, Patel, & Zeckhauser, 1999). Hence the scope of earning management is too broad and sometimes due to its widespread share in firm financial operations it can be said that it is inevitable for firm survival by one way or the other.

According to Healy & Wahlen, 1999 it was stated in literature that managers use earning management when they try to use judgment in financial reporting and try to mislead stakeholders about the economic performance of the company by structuring transactions. It was also stated in their findings that researchers have struggled to quantify the extent to which managers exercise the flexibility given in accounting standards to achieve earning realizations as per the expectations of the shareholders. Literature available in the past has only emphasized on few questions. These questions were related to methodology used to manage earnings, reason behind using earning management and what resources were being allocated in achieving the desired targets. It has been identified by most of the studies that non discretionary accrual based methodology has been frequently used by management in doing earning

management because it provide management with flexibility with which they can easily achieve their targets.

Attitude of the CEO towards risk, defensive motive and agency theory is often used for elucidation of association between CEO characteristics and holding excess cash by the firm. According to the agency theory if CEO is holding some stock then shareholders are CEO are going to share same level of interest in the firm According to the agency theory, if CEOs is going to hold some stock, and there are fewer chances of agency problems to occur, which mean that level of holding cash more than optimal level will decline. Furthermore, as CEOs' interest will increase in stock options, there is a huge possibility that CEOs holding stock shares may have greater inducement to invest in assets with greater risk for greater return (Haugen and Senbet,1981;Hemmer,Matsunaga and Shevlin,1999;Tong,2010).As CEO and shareholders are going to have same interests, CEO with stock options will be more inclined towards making investments with high risks and high expected returns (Brookfield and Ormrod,2000;Core and Guay,1999;Dechow and Sloan,1991;Hanlon ,Rajgopal and Shevlin,2003). Hence, if the management is provided with the stock options it will reduce its risk averse tendency (Haugen and Senbet, 1981).As the stock volatility is likely to be affected by stock options other than stock price, CEO with stock options will try to increase stock volatility to increase their future wealth. Accordingly, a CEO with stock holding will try to reduce holding excess cash in hand (Tong,2010).

### **Theoretical Background**

There are two types of agency problems cited in the literature (Lee et al., 2014). First agency problem arises when there is a difference in the goal of managers and shareholders (Jensen & Meckling, 1976). Agency problem II arises when controlling shareholders extract the resources from the minority shareholders (Cheung et al., 2005). Recent studies on earnings management focus on agency problem II (Chung et al., 2005; Cohen et al., 2010; Cao et al., 2013) due to higher expropriation. Earning management can be advantageous or detrimental for an organization depending upon the motive behind its usage.

Even though there is difference of purpose, opinion and benefits to be achieved between managers and the stakeholders and contra dory at the same point of time, both the parties need each other. Due to

asymmetry of information the difficulty arise in keeping an eye on and supervising the actions of the managers. It was stated by Jensen and Meckling (1976) in their studies that this problem arises because of adverse selection and moral hazards. It is anticipated from agency theory that it will prove as contrivance that to give assurance to the stake holders that (1) the managers will take decisions that will benefit stakeholders,(2) stakeholders who have invested in the share of the company will not deceived by the decisions of the managers of making investments in unprofitable ventures , and (3) the managers can be controlled by the investors (Shleifer and Vishny, 1997 and Herwaty,2008) .A good corporate governance seems to be appeared due to conflict in agency theory.

The other theory is steward ship theory which is contra to agency theory. According to the *Stewardship theory* there is motivation for inhabitants to work for the organizations by accomplishing the tasks and responsibilities assigned to them. As per this theory, managers will act as responsible stewards of the assets they are assigned to be responsible of and will not conflict their interest with the interests of the organization. The basis of assumption of Stewardship theory is that if a choice is given to a steward between self-serving behavior and pro-organizational behavior, a he will give preference to cooperation than defection.

As per the stewardship theory the manager's role is assumed to give results on investments of the stakeholders that are there to maximize their wealth. The manager as a steward should be one whose behavior is organized and he should act solely in the best of the stakeholders. They demonstrate the example of a man who acting intelligently makes rational, not decisions, unlike the agents whose preference is their own personal interest. Both stewardship theory and agency theory consider employees to be assets for the firms but the basic difference arises in the way they treat their by their motivational nature and how they can control them. A steward is one who without being opportunistic is driven y his need of self-actualization and achievement on the basis of his performance.

Agency theory argues that shareholders believe that their interests can be protected by separation of roles of board chair and CEO. Stewardship theory believes that shareholders interest can be maximized without the separation of roles of chairperson and CEO.

Positive accounting theory is presumed to be theory that envisage and elucidate the accounting standards used in actual practice and also identifies the agency cost arising from contractual agreement between managers and stakeholders of the firm (Jensen and Meckling, 1976). It has been stated in findings of this theory that managers choose accounting standards that fulfill their motive of interest when they are preparing the financial statements. It is therefore suggested by the positive accounting theory that managers opportunistic behavior needs to be limited by the use of accounting choices such as conservatism, without which managers may not be able to make use of assets of the firm to fulfill their personal interests.

### **Impact of earning management on firm value**

It has been conceived by the literature available in finance that there are many ways in which cost of equity of the firm is affected by the quality of financial information provided one of which is reaction of the investor to the information exposure as a result of which market liquidity may be increased or decreased accordingly. Market liquidity can be increased by high quality of information by means that it transaction cost can be reduced or demand for the securities can be increased in the stock market (Amihud & Mendelson, 1986; Diamond & Verrecchia, 1991). Alternatively, investors can get higher exposure on risk as they are going to make decisions on the basis of quality and quantity of information available to them as a result of which cost of equity may increase (Easley & O'Hara, 2004; Leuz, C. & Verrecchia, 2004).

Information in financial statements in which earnings are reported using discretionary accrual earning management is tacit to be of low quality and less reliable and may result in one of the reasons for investor's uncertain decisions regarding prices of the shares, information based on accruals seems to have firm specific non diversifiable risk as it affects the cost of equity of the firm. Consistently, the same perception is depicted in Francis, J et al. (2005, p. 296) as they state that "By information risk, we mean the likelihood that firm-specific information that is pertinent to investor pricing decisions is of poor quality".

To know about the financial position of the company, the stakeholders have to only rely on reports from the management of the company. Sometimes even the managers as managers of the company face problems to find out more information about the company's internal position and future prospects for

making decisions due to information gaps. This information gap is often referred to as information asymmetry. Just because of the information asymmetry the owner of the company is unaware of the actual financial position of the company and management gets the opportunity to do a profit manipulation through earning management. All this earning management is done by the managers to enhance value of the share holders; performing this activity can increase the value of the company for a certain period but will reduce the value of the company in the future (Alhadab, 2017).

Different methods of earning management are used to manipulate income and that income manipulation affects the firm value as mostly manipulation is done through net income. For example, managers try to manipulate net income by over stating closing inventory to increase net income through cost of goods sold. Richardson et al., (2006), also stated in his findings that earning manipulation is mostly done by using accrual based earning management. Now days, earning management in financial reporting by real activities is becoming more effective alternative used by the managers to adjust their estimates based on accrual-based earnings management which has already been implemented as earning management through real activity is difficult to detect as compared to accrual-based earning management (Wang, 2006).

Literature suggest than earning management can be used for the sake of signaling as per the signaling theory. Hence, Inside information from management to investors can be communicated by a mechanism which is signaled by EM. EM has also been depicted as rational equilibrium behavior in case of information asymmetry which is modeled in a number of studies (Ronen and Sadan, 1981; Dye, 1988; Bartov et al., 2002). These researches argue that earning management work as signaling evidence and facilitate efficient communication between information users and managers and hence the investors ability to predict firm performance and value relevance of information. Moreover, signaling perspective of EM suggests that shareholders themselves sometimes demand earnings management. Beidleman (1973) and Dye (1988) studies suggested two possible reasons for EM. First, a smoother, more predictable income stream will reduce cost of capital. Second, Dye (1988) argues that prospective investors' perception of firm value is also influenced by stable income stream. In case of accrual based earnings management assumptions and estimates are adjusted with in accounting system while in contrast to that in real earnings management in order to achieve desired level of reported earnings timing

and structuring of actual business activities are involved. For example deciding to sale the equipment in a quarter when extra earnings are required.

De Jong et al. (2014) found that CFOs manage earnings in order to bring firm value up to what investors perceive about it by ensuring that the firms meet desired earnings benchmarks. Bergstresser and Philippon (2006) document the incentives for CEOs to use earnings management when their compensation is linked to a stock-based incentive scheme while Burns and Kedia (2006) arrive at the same conclusion for CEOs that have significant options portfolios. An et al. (2014) report that CEOs tend to manage earnings upwards to either meet or to exceed analyst forecasts and thus, influence investors' perceptions of their ability.

Following the traditional corporate finance (Stiglitz 1974), firms for investing in perfect markets can get enough external finance based on the NPV of the project . Excessive cash holding will have no influence on value of the firm because there is no premium for liquidity. So, there are no benefits of keeping liquid financial assets more than requirement and wealth of the shareholder will also not be affected by decision of investment in liquid assets (Opler, Pinkowitz, Stulz and Williamson, 2001).

Similar studies were conducted by Pinkowitz and Williamson (2001) and their findings were that one dollar of market value for the enterprise is added by holding one dollar cash. It was also stated in trtheir findings that the decision of the company to hold excessive cash is influenced by many factors such as whether appropriate investment opportunities available or not and conflicts of interest between shareholders and the managers.

Francis et al. (2004) have analyzed the impact of earnings quality attributes to resource allocation decision by investors. Following these researchers current study incorporates accrual earnings management, which is measured by discretionary accruals, nondiscretionary accruals and cash flow from operation along with control variables in a single model and intends to determine their implication for firm value. There are two types of earnings management (Subramanyam, 1996) one is efficient in which managers have the power of discretion whether they are willing to to disclose private information about financial position of the firm related to historical cost transactions and the other type is opportunistic in which it is for sure that the managers will use their discretion for maximizing their

utility for not disclosing information related to financial position of the firm. Efficient earnings management presumes to be adding value to firm while opportunistic earnings management seems to depreciate value of the firm as it has negative relationship with firm value (Subramanyam, 1996).

Eman (2010) studied whether earnings management has an impact on the value relevance of the earnings and book values. According to him earnings management is used as a combination of the real earnings management and earnings management of the accruals. It was revealed by his findings that the market value of the firm is related to the earning and book values of the firm.

Majority of literature describes earning management as negative phenomenon which aims to mislead investors and is opportunistic in nature yet there are also evidences of efficient utilization of judgment (Subramanyam, 1996; Jiraporn et al., 2008; Siregar and Utama, 2008) by management which increase the quality, predictability and utility of earning which in turn enhance value of firm. Earnings management can have a damaging effect on the firm in long run though it may be beneficial for short term as it enables firms to satisfy short term motives by increasing cash flow from operation.

Opportunistic view of earnings management has been favored in various studies (Jones, 1991; Dechow, Hutton, Kim, & Sloan, 2011; Kasznik, 1999; Dechow & Dichev, 2002). Managers may be found inclined towards opportunistic earning management because of the flexibility provided by financial reporting standards to income management and increasing manipulation in the reported earnings due to conflict of interest of managers and shareholders. Hence it can be said that both beneficial and opportunistic views of earnings management are found in literature.

Managers some times to improve the share price by surprising the investors tend to manipulate earnings (Du Charme & Malatesta,2004).There are many ways through earning manipulation is done to increase earnings e.g.by depositing current period account receivable cheque in next period, by transferring goods to an inflated market, buying goods from deflated market etc.(Verma,2012).The purpose behind doing this all is that the managers are reluctant to announce profits below the expectations of the investors because that will have an impact on share price and ultimately firm value. A sample was collected from US companies from 2000-2001 and it was found that abnormal stock return technique was used to manage as stocks are positively related to income. Researchers have found that most of the



initial public offering firms are found indulged in earning management through stock return with a belief that this will have an impact on income and ultimately the firm value (Teoh , Welch, Wong,1998).Market price have an impact on income statement and managers try to manipulate income statement to increase firm value.

As investors price the historic element of cash, information provided regarding conversion of earning into cash using accruals to the investors seems to be unclear, which causes increase in information risk and ultimately firm's cost of capital (Francis, J et al. 2005). In consistency with the previous studies, it is expected that there is a positive relationship between accruals quality earning management and firm value.

**Hypothesis 1:** Earning management has positive impact on value of the firm as it is done by the managers to support their long run survival of the firm with them and to prove that they have the ability to let the firm perform according to the expectations of the stakeholders.

### **Earning Management is negatively related to the firm value**

Firms that meet target profits are less likely to be monitored by external stakeholders compared to those that fail to meet target income (Denis and Serrano, 1996). Therefore, when a firm seems to reach the target profit, managers tend to manipulate earnings to be able to attain the desired numbers. Jensen and Meckling (1976) argue that this type of managerial behavior could give rise to agency theory problem as conflict of interest may rise with shareholders in the process of preparation of financial reports.

According to pecking order theory, cost of external capital increases due to asymmetric information and to avoid external capital managers accumulate excess cash to pursue their own interest. Some managers hold less cash due to their preference for over investment. Earnings management through discretionary accruals reduces cash valuations (Sun et al., 2012; Alhadab et al., 2015). Managers of poorly performing firms will engage in income increasing activity to meet their objective without considering the negative effect on firm value.

Excess cash enables firms to reduce information asymmetry and firms with excess cash are less manipulator of earnings and do not uses excess cash for earnings management.

The relationship between earnings management and firm's value was examined by Himma Putri (2013) by studying the impact of earnings management on the value significance of the earnings and the book value. ROA was used as measuring tool for measuring accruals. The population taken as sample consisted of the whole firms listed on the Indonesian Stock Exchange from 2009 to 2011. Their findings stated that the earnings management leads to the reduction in value significance of the earnings and book value.

The agency costs of equity and debt at various levels of management ownership is affected by the relationship between capital structure and management ownership. The higher the portion of shares owned by the management, there will be more similar trends in interest level of managers and shareholders; managers will have higher incentive to work for the interest of the company. It was proposed by Jensen & Ruback (1983) in their conflict of interest hypothesis that the higher the ownership of managers, the higher the anti-takeover behaviors they will have. This clearly indicates that managers holding higher ownership will have more voting power in the board of directors. Managers that tend to keep their own hold on the company will vote against the issues of merger, acquisition, or repurchases of shares. Boghdady, 2019 found that as managers have very few incentives to maximize the wealth of the shareholders they will do earnings management to avail more private benefits thus proving that earning management may have a negative impact on firm value. Cash reserves may be used by the managers for fulfilling their own needs which has negative impact on firm value (Jensen, 1986).

The core of the relationship between cash holdings and firm value is whether the firms hold optimal level of cash that maximizes firm value. If management of a company is going to hold more cash than the optimal level, it can assume that the management might be planning waste to overinvestment cash in projects with low profitability or in mergers and acquisitions that is not going to improve value of the firm (Blanchard, Lopez-De-Silanes, & Shleifer, 1994; Jensen, 1996; Opler, 1999)). Consequently, keeping in view the circumstances in Pakistan, India and Bangladesh, it is important to investigate why non financial companies are interested in holding the optimum level of cash and especially when it is not adding any value to the firm.

It was perceived by Cohen and Zarowin (2010) in their studies that companies that facing financial stress and are using capital call are found more engaged in real activities earnings management and will their firm will face a significant decline in value in the future. Thus, it can be stated that earnings

management through real activities will have a positive impact on the performance of the firms in the present and negative in the future.

Several studies have shown that the manager preferred manipulating earnings through major interventions. As per the survey that was conducted by Graham et al. (2005), data was taken from the 400 executives of the US firms and it was reported that real earnings management manipulation was practiced by 80% of managers to report higher earnings than accrual-based earnings management although managers are well aware of the fact that for performing earnings management through real activities they can achieve short term goals and have to sacrifice future cash flows. Managers might give more preference to real earning management because detection of real earnings management is more difficult as it involves manipulation through real operating and investment activities and as a result of which cash flows are affected ((Kothari, Leone, & Wasley, 2005). It has also been argued by Kothari, Leone, & Wasley, (2005) that real earnings manipulation is even more expensive for firm than accrual earnings manipulation, so before involving in real activities manipulation managers tend to engage in earnings management through accrual based activities.

As per the results of the survey conducted by Graham et al. (2005) CFOs in a hope for increased rate of return are more willing to delay long-term investment activities, without keeping in view the fact that it may have negative effects on the future value of the company.

Majority of the empirical studies relating to earnings management arrive at two conclusions: (i) firms try to earnings are mostly manipulated around specific events, like issuance of shares and (ii) manager will always try to influence the perception of the investor about the value of the firm by managing earnings. It has also been found out that the impact of earning management on a firm's value fades very quickly, as earnings management is merely an accounting trick; a manipulation device that has little or short term impact on the fundamental value of the firm.

Many researchers have studied the impact of earning management on firms operating in Malaysia. Abdul Rahman, Mohammad Ali and Fairuzana (2006); Mohd. Saleh, Mohd. Iskandar and Mohid Rahmat (2005) are the ones who have concluded in their studies that earning management is positively related to the board of directors and they supported the observation that larger board size seems to be

ineffective in their duties as compared to smaller board size. Also, if the CEO is the member of board of director conflict of interest may arise.

According to the agency theory, the agent is always be risk averse and will be careful in investing resources which do not increase the value of the firm. The agency issues also indicates that the value of the company can be increased only if the owners of companies are going to control behavior of the management in context of stopping them from not to wasting resources which may be either in the form of investment that is not feasible, or in the form of shirking the firm.

Managers can use earnings management to report earnings in the financials for their benefits, which may have a negative impact on firm value (Jones, 1991; Roy Chowdhury, 2006; Kothari et al.,2012; Boghdady, 2019). Managers can employ earnings management either opportunistically or efficiently depending upon their level of interests. Usually as per agency theory, to maximize their own welfare, managers get indulged in opportunistic earnings management. Efficient earnings management improves communicating private information to various parties. Using discretionary accruals, one can check whether earnings management is opportunistic or efficient if earnings management is efficient then discretionary accruals will have a positive impact on profitability of the firm. Many studies (Healy, 1985; De Angelo, 1986; Li et al., 2011; Walker, 2013) explained earnings management from the opportunistic behavior of managers. Managers use earnings management to transfer resources for themselves in the form of a compensation plan, bonus issue etc. Managers use earnings management to adjust reported earnings to meet the expectations of the stakeholders.

**Hypothesis 2:** Earning management will have a negative impact on the firm value as it will positively increase the value only for a short period of time but in long run the value will be affected badly.

### **Mediating Role of excessive cash holding between firm value and earning management**

There is a observation that a firm who is not going through any financial stress will not interested in unnecessarily holding excess cash despite its inflow of cash might be increasing and may seek to invest its excess inflows in investments with better returns, because firm seems to be confident that in case of any future requirement for investment it will be able to get finance from external sources without any difficulty. On the other hand, a firm who is facing financial constrains will always prefer to hold at least

some part of the increase cash inflows to increase its cash holdings, so that it won't have to rely on external funds for future investments. This is in line with – the hypothesis discussed in Almeida et al. (2004) that an increase in cash flow will be a source for financially constrained firms to hold more in the form of cash (that is, the 'cash flow sensitivity of cash' of financially constrained firms will be positive).

There are many factors that influence the decision of the firm to hold excessive cash. These factors include the economic condition of the country and its lawful environment, financial management strategies of the firm, financial situations and structure of the firm.

Prior literature focuses on theories about costs and benefits of holding different levels of cash (Jensen 1986; Opler et al. 1999). Many studies focus on determinants and reasons behind holding cash in a different context (Opler et al., 1999; Dittmer, 2005; Zhou, 2006; Bates, 2009; Cai et al., 2016). The majority of studies on earnings management focus on companies listed in the U.S. and Hong Kong and (Chen et al., 2011; Hu & Li, 2010; Lo et al., 2010). Research on excess cash and its linkage to earnings management on third world developing countries like Pakistan India and Bangladesh is limited. There exist two perspectives about excess cash: one is an opportunity cost (Opler et al., 1999) and the other is private benefits (Jensen, 1986). Using a precautionary level of cash balances, the firms can hedge against future cash flow uncertainty (Mikkelson & Partch, 2003).

Relationship between accounting information and market value was studied by Stefano (2012) in a sample of 103 firms who were listed on the Milan Stock Exchange. It was concluded in their study that the operating cash flows, discretionary accruals and non-discretionary accruals have different value relevance with information in the market and this relevance decreased in the consequence of the financial crises.

Decision to hold excess cash holding can be caused as a result of management problem. As per agency theory CEOs who is more concerned about his personal interests during their tenure will give more preference to investments with short-term benefits rather than to those with short-term costs but would be beneficial for long period of time (Berle and Means, 1932; (Jensen & Meckling, 1976)). CEOs are inclined towards holding cash to make sure that funds are available whenever they are required. Financing from external sources, such as banks, has limitations in usage, whereas managers can easily

use the cash held by a company. Therefore, CEOs will try to avoid making long-term investments that and will try to hold excess cash for short-term investments if they have short tenures (Bebchuk and Stole, 1993; Bushee, 1998; Koh, 2007).

It was demonstrated by Dittmar, Mahrt-Smith, and Servaes, 2003 in their studies that in countries where investors have weak protection level of holding cash is high. Pinkowitz, Stulz, and Williamson, 2006 in their studies have reported that there is a negative correlation between cash holdings and firm value in countries where investors are given protection rights. Nikolov and Whited, 2001 have highlighted traditional agency problems between shareholders and CEOs that CEO to fulfill his personal benefits can increase the level of holding cash ratio up to 22% and accordingly can be dropped to 6%. These results give a clear indication of agency problem between shareholder and the manager as the decision to hold the level of cash will depend on the benefits of the CEO.

It has been observed that companies operating in Asia and Europe have more strenuous ownership and structure as compared to companies who are doing business in America as their ownership and control structure is found to be more dispersed (La Porta et al., 1999) and (Salacuse, 2003). From the findings of these studies it can be assumed that ownership and control of the companies operating in Pakistan, India and Bangladesh is more resolute. In these firms, the behavior of the managers is under control and they have less influence on shareholdings and similarly affecting the supervising ability of the board of directors which would ultimately be affecting the quality of information provided to the shareholders.

CEOs' actions arising as result of agency problem of pursuing self-interests over the wealth of shareholders will give rise to information asymmetry (Jensen & Meckling, 1976). As holding cash retained will increase the discretionary power of CEO (Opler et al., 1999), he would give preference to holding it as reserves within the company instead of paying it off to the shareholders as dividends. Similarly, with decision of holding excessive cash, CEO will have the opportunity to maximize his personal wealth rather than giving benefit to the share holders. For that reason, CEOs are always found more interested to hold excessive cash to satisfy personal interests rather than to make decisions in their best interest of shareholder, resulting in conflict of interest between CEOs and shareholders (Jensen, 1986).

However, if shares of the company are owned by the CEO than the agency problem can be reduced as shareholders and CEOs are going to share same level of interest (Jensen, 1996; Jensen & Meckling, 1976)). If CEOs are going to get paid in stocks; there will be an incentive for them to reduce the level of cash holdings and search for apposite opportunities for investment (Wright et el, 2007). CEOs with stock ownership are more likely to pay dividends to attract shareholders if he does not find any appropriate opportunity to invest. Thus excessive cash holdings are reduced by aligning the interest of the owners and manager. The same fact was supported by Kim,2007 who researched on Korean companies and revealed that a negative correlation exist between CEOs' share ownership and the cash holdings ratio which supports the argument that CEOs will reduce the level of excess cash holdings ratio as their shares are going to increase. Consequently, this study will reveal that decision to hold excess cash would be affected if CEO is the member of board of director or not as this decision would be affected by a higher possibility of conflict of interest between owners and CEO.

There is limited literature available showing that earning management has significant effects on financial performance and value of the firm. The participants involved in earning management must be fully aware of the consequences of performing earnings management as this will affect the financial performance and value of the firm. This study is conceptualized and aimed to analyze the impact of earning management on value of the firm with mediating role of excessive cash holdings.

Sheikh and Khan (2016) in their research found that if the shares are held by managers this will have a negative relationship with cash holdings. On the other hands investigations also revealed that board independence has positive relationship with cash holding.

We will try to find out that whether the impact of excessive cash holdings is positive and significant on value of the firm and that whether its impact differ in case of firms size in developing countries like Pakistan, India Bangladesh.

In an emerging economy of the developing countries like Pakistan, India and Bangladesh where there is weak investor protection and corporate governance, there is a possibility that managers might be using earnings management for signaling purpose and excess cash enables the managers to manipulate the earnings and thereby earn more profits (Kolb,2006). Keeping in view above arguments the following hypothesis is formulated:

**Hypothesis 3:** The firms who are smaller in size face financial constraints and are more inclined towards earning management to increase firm value and excessive cash holding plays a mediating role between them.

## CHAPTER 3

### RESEARCH METHODOLOGY

#### 3.1 Research Design

Research design is a methodology or technique designed by the researcher to carry out research in order to obtain appropriate results. Mostly two types of research designs are used in common practice one of which is qualitative and other one is quantitative. Non-numerical or qualitative data is analyzed by using qualitative research method to analyze statistical data and obtain result in the form of numerical data quantitative data methodology is used. Decision has to be made by the researcher regarding choosing the right research methodology before he has move forward with carrying out his research process. Quantitative research design is used in current study as our research is based on numerical data and to verify hypothesis tests needs to be carried out to examine how earning management is going to have an impact on value of the firm.

#### Population and sampling

##### Population

Population used in current study is based on non financial listed companies in Pakistan stock Exchange, Bombay stock exchange and Dhaka stock exchange. As we are we aware of the fact that thousands of the firms are listed in Pakistan Stock Exchange, Bombay stock exchange and Dhaka stock exchange. There is also a language issue with India and Bangladesh as most of their financials were in their native language so we have taken companies whose financials were available in English language and period that was taken in observation was from 2011 to 2019. Our population sample consists of non financial firms only. As different measurement proxies are used by financial firms, banking sector, mudarba



companies and insurance companies so they are not included as a part of our study sample. Some companies are also excluded from our study that do not have complete record of financial statements or that were not accessible.

### **Data Collection:**

Primary data collection method and secondary data collection method are most commonly used types of data collection method used by the researchers to collect data to carry out their study. By using primary data collection method, data is collected through survey questionnaire personally by the investigator from the respondents on the other hand researchers use data that is already available for analysis in secondary data collection method. As the data is easily accessible from annual financial reports of different firms and from database so secondary data collection method is used in this research. Financial statements analysis published by State bank of Pakistan, India and Bangladesh and annual reports published by the firms selected in population are used to extract panel data for analysis. To identify the impact of earning management on value of the firm with mediating role of excess cash holding investigation period of 10 years is considered to be appropriate.

### **Sampling techniques**

The study will be done using convenient sampling due to time limitations. The data will be collected from non financial companies in Pakistan, India and Bangladesh, from the population from where the data collection will be easy and convenient. Companies whose data will be difficult to obtain due to non availability of annual reports will be excluded from the sample. In order to improve legitimacy of the results companies that will be excluded from the population sample are one that will not holding cash information or information on cash or cashable assets and companies having no market value.

### **Sampling**

Based on convenient sampling, data will be collected from the annual reports of 45 companies of each country. Data from annual financial reports will be collected from database of the companies listed in Pakistan, India and Bangladesh stock exchange. The sample will be divided into two portions of the sample; one would be estimation sample and other would be holdout sample. Sample will include only

non financial companies listed in stock exchange companies of Pakistan, India and Bangladesh. Any observation with missing data will be dropped.

### **Econometric Model**

OLS regression technique is used is obtaining help in gaining the objectives of this study. Software that is used by the researcher to analyze advance features is stata. Correlation analysis is also executed to check relationship between dependent and independent variables.

### **Measuring Firm Value**

To measure firm value Tobin Q will be used. If Tobin Q is used as a dependent variable it can easily measure the impact of earning management on firm value with mediating role of excessive cash holding. As per (Reguera-Alvarado,2017) Tobin Q is the best proxy used for firm value ,which indicates the market value of future earnings.

$$Q = \frac{\text{Market Value of Equity} + \text{Market Value of Liabilty}}{\text{Book Value of Equity} + \text{Book Value of Liabilty}}$$

Where:

Tobin's Q is defined as market value of equity plus book value of debt divided by firm total.

Tobin's Q ratio shows the value of the firm. The value of numerator in Tobin's Q is the value of the share price in the stock market which is multiplied with the number of the shares outstanding. If value of the ratio is high it shows that value of the firm perceived in the market is high compared to the replacement cost.

Tobin Q is used to calculate firm value and the calculation is done by following steps: 1) market value of equity (MVE) was calculated which is result obtained by multiplying stock price at the end of the year by the number of shares outstanding at the end of that specific year and adding book value of total

debt 2) The result obtained was divided by book value of equity (BVE). Book value of equity obtained by taking the difference between total assets and liabilities of the firm and then adding book value of the debt (Chung & Pruitt, 1994).

This ratio can be beneficiary to the analyst as it helps in the identification of cross-sectional differences in decision making of investment and diversification, as well as how the value of the firm is affected by relationship between owners and management in absence of good corporate governance (Sukamulja, 2004).

It is also suggested by this ratio that current market value of the firm can be estimated by the value of returns on investment (Herawaty, 2008). A high value of Tobin's Q ratio will show whether the has high growth potential or not. Low value of Tobin's Q ratio will show that company is operating in competitive industry that might shrink.

### Measuring Earning Management

Three alternative measures of earnings management will be performed to mitigate any risk from our results. The first method used is version of modified Jones (1991) model. We will start by estimating the cross-sectional version of the modified Jones (1991) model for all the firms' j, in a given industry i and year t, using data collected:

$$\frac{TA_{j,i,t}}{A_{j,i,t}} - 1 = \beta_{0i,t} \left( \frac{1}{A_{j,i,t}} - 1 \right) + \beta_{1i,t} \frac{(\Delta REV_{j,i,t} - \Delta AR_{j,i,t})}{A_{j,i,t}} - 1 + \beta_{2i,t} \left( \frac{GPPE_{j,i,t}}{A_{j,i,t}} \right) - 1 + \varepsilon_{j,i,t}$$

Where

TA stands for total accruals

A stands for total assets,

$\Delta REV$  is symbol used to indicate the change in revenues from last year,

$\Delta AR$  indicates the change in accounts receivable, and

GPPE stands for gross property, plant and equipment.

The residual ( $\varepsilon$ ) is term that is used to indicate discretionary accruals.

The second measuring tool of earning management is abnormal working accrual, which has been used in prior studies on firms which were involved in bankruptcy (Lara et al., 2009). The AWCA measure is based on Kasznik, 1999 model, which is different from modified Jones model as it incorporates the changes in operating cash flow as explanatory variable to cater for the negative correlation between accruals and cash flows (Dechow, 1994). We start by estimating the cross sectional version of Kasznik,(1999) model for each industry and year, using data for each industry and year, available from the respective stock exchanges:

$$\frac{WCA_{j,i,t}}{A_{j,i,t}} = \beta_{0i,t} \left( \frac{1}{A_{j,i,t}} \right) + \beta_{1i,t} (\Delta REV_{j,i,t} - \Delta AR_{j,i,t}) - 1 + \beta_{2i,t} \left( \frac{\Delta CFO_{j,i,t}}{A_{j,i,t}} \right) - 1 + \varepsilon_{j,i,t}$$

Where

WCA stands for working capital accruals that are calculated as current assets minus current liabilities.  $\Delta C FO$  is the change in cash flow from operating activity.

Firms may be found engaged in doing earning management through real activities which is often called real earning management in addition to accrual based earning management. The literature (e.g., Roy Chowdhury (2006)) refers real earnings management as manipulation in earning through any action that are not part of routine business operations like sales manipulation or costs manipulation through price discounts, cutting discretionary expenses etc and performed to provide misleading information to the shareholders by the managers that their perceived earnings benchmarks have been achieved. Literature shows evidence of real earnings management both in successful firms (Cohen and Zarowin, 2010) and in failed firms (Lara et al., 2009). In firms who had failed in fulfilling their targets, managers have manipulated their sales by showing operating cash flows abnormally low as compared to the reported sales (Lara et al., 2009). To calculate abnormal cash flows from operations it is necessary to find out cash flow from normal operations. We run the following cross-sectional regression for each industry and year, using data available from stock exchange:

$$\frac{CFO_{j,i,t}}{A_{j,i,t}} - 1 = \beta_{0i,t} \left( \frac{1}{A_{j,i,t}} - 1 \right) + \beta_{1i,t} \left( \frac{REV_{i,j,t}}{A_{j,i,t}} - 1 \right) + \beta_{2i,t} \left( \frac{\Delta REV_{i,j,t}}{A_{j,i,t}} - 1 \right) + \varepsilon_{j,i,t}$$

All variables used above are already before.

Abnormal cash flow (ACFO) is calculated by subtracting the abnormal cash flow from business operations from actual cash flow from business operations. Performance matching is already explained above. Consistent with previous research (Zang, 2012; Cohen and Zarowin, 2010), we are going to subtract abnormal cash flow from one to show that values of abnormal cash flow are associated with values derived from real earnings management.

### Measurement of Excess Cash Holdings Ratio

The formula used for measuring excessive cash holding is as below in which actual will be subtracted from excess cash holdings

$$E_{cash} = CASH_{it} - (LEV_{it} + MTB_{it} + SIZE_{it} + NCW_{it} + CAPEX_{it} + ROA_{it} + INVCF_{it} + FINCF_{it} + DEF_{it})$$

Where

ECASH stands for Excess cash holdings

LEV is for leverage which is calculated by the following formula

Liabilities/(Liabilities + Total market value)

MTB stands for market to book ratio and is calculated by adding Liabilities and Total market value and dividing the results by Assets

SIZE is to represent size of the firm and is calculated by taking natural log of assets

NWC represents net working capital and is calculated by the following formula

(Current assets – Current liabilities)/Assets

CAPEX is the symbol to represent capital expenditure

(Fixed assets – Prior year fixed assets + Depreciation cost)/Assets

ROA stands for return on assets and is calculated by dividing Earnings before interest and taxes by Assets

INVCF stands for cash flow from investing activities and is obtained by dividing cash flow from investing activities by Assets

FINCF stands for cash flow from financing activity and is obtained by dividing Cash flow from financing activities by Assets

DEF stands for financial deficit and is calculated by dividing result of [cash flow from operating activities after interest and taxes – (Cash dividends + Net investment + Change in net working capital)] by Assets.

The mediating variable used in this model is excessive cash holding which is calculated as a ratio of the value of the assets minus cash and cashable assets to the amount of cash and cashable assets (Dittmar, Mahrt-Smith and Servaes, 2003; Opler et al., 1999). In order to control heteroskedasticity, cash and cashable assets were divided by non cashable assets (total assets - cash and cashable assets).

LEV was calculated by dividing the liabilities by the sum of liabilities and total market value (John, 1993). John, 1993 in his studies argued that there seems to be negative relationship between LEV and cash as companies with high leverage ratio can get the required financing by issuing debt, so they seem to be less inclined towards holding excess cash.

MTB is symbol to represent growth opportunity and is measured by dividing the sum of liabilities and total market value by the assets (Ferreira and Vilela, 2004; Opler et al., 1999). Company will hold excess cash to reduce the expected loss with increase in growth opportunities. Therefore MTB is expected to have a positive influence on cash holdings.

Size was measured as the value calculated by taking natural log of total assets (Ferreira and Vilela, 2004). Company will increase its cash holdings with increase in cost of capital. There Size seems to have a negative impact on cash.

NWC was measured by dividing the difference of current assets and current liabilities by total assets (Opler et al., 1999).

CAPEX was measured by deducting the previous year fixed assets from current year fixed assets and adding the depreciation and then dividing the results by assets (Opler et al., 1999). D'Mello, Krishashwami & Larkin, 2008 explained that net working capital can be used a proxy to represent the cash holdings of the company. As per trade-off theory as the value of NWC and CAPEX

increases, level of cash holdings will decrease (Keynes, 1936; Opler et al., 1999). Therefore, NWC and CAPEX seems to have a negative impact on cash.

ROA, which indicates the profitability of the company was measured by dividing earning before interest and tax (EBIT) by assets (Kim, Mauer and Sherman, 1998). As high profitability is a source of generation of large amount of cash inflows, cash holdings are also likely to increase.

NVCF is calculated by dividing cash flows from investment activities by assets, while FINCF is measured by dividing cash flow from financial activities and assets (Lee and Powell, 2011). Financial management is on the rise as cash flow from both investment and financial services increases (Lee and Powell, 2011). Therefore, INVCF and FINCF are expected to have a positive impact on CASH.

DEF was measured by dividing {cash flow from operations after interest and tax - (cash dividends net investment + changes in working capital)} by assets (Byoun, 2008; Frank and Goyal, 2003). Jani, Hoesli and Bender, 2004 argued that increase in financial deficit will decrease cash holdings. Therefore DEF will have negative influence on cash.

Panel data method was used to assess the impact of excess cash holding on earning management. Based on the Hausman test, we have chosen to opt for fixed-effect model consistent, and we control the industry and annual results to avoid heterogeneity. When we control the industry and fixed effects for the year, we are also controlling time-variant factors such as financial crisis and other regulatory changes.

## **Control Variables**

### **3.4. Control Variables**

Multiple control variables were betrothed in this study to investigate the effect of these variables on firm value. Control variables that are included in this study are firm size, stock price, dividend policy and cum. All of these variables control the variables of this study and will have a different effect on the firm value.

### **Stock Price:**

Stock price of the shares is also included in measuring earning management as control variable. Stock price is defined as a price for which that one single share is available in the market for trading. In other words it is the amount that any person is willing to pay to purchase it .Market price of the share is different from the face value of the share. Previous studies show that stock price changes and change in stock price is correlated with firm's value as it fluctuates with the performance of the firm. The price is likely to increase if the firm is performing well and will fall if the performance of the firm is not up to the expectations of the investors. This effect is low in short run whereas high in long term investment (Heidarpoor, Rouhi, & Mashaei, 2012).

### **Firm Size:**

To measure the impact of earning management on firm's value firm size is used as a control variable. Firm size will be measured by taking natural log of total assets of the firm (Chen et al.,2005;Ghazali,2010;Hasanand Ahmed,2012).It is used in this study as a control variable as it takes into account the impact of firm size on discretionary accruals of the sample firms (discretionary accruals are used in earning management). It has been studied in various researches that higher agency problem is expected in larger size firms (Abed et al., 2012). As per Kouki et al. (2011) effect of firm size on earning management is controversial. There are two point of views. One is that there exists a negative relationship between firm size and earning management (Abdul Rehman & Ali, 2006; Xie et al, .2003) as larger firms have sound internal control system and have good reputation and for this reason are able to avoid earning management. The second view the opposite view that suggests that there is positive relation between size and earning management as larger firms are under more market pressure and therefore seems to be more involved to cope up with the expectations of the investors (Moses, 1987; Myers and Skinner, 2000; Nelson et al., 2002).

Baumol's (2001) own statement of size-profit hypothesis defined as "amount of owned and borrowed money capital which total asset is a good approximation Previous literature also supports the fact that taking assets as a base for measuring size of the firm is better because ultimately it is the amount of capital available that determines the opportunities of investment available to the firm. Larger size firms have liquidity ratio as compared to smaller firms because investors consider large firms to be risky and these firms also have strong relationships with banks and other lending institutions that make it easier



for them to borrow money from external sources (Audretsch & Elston, 2000); therefore they tend to be less involved in the management and overspending. Similarly large size firms earn more profit and appear to be less involved in earning management (Grey & Clarke, 2004).

### **Dividend Policy:**

Dividend policy is defined as a strategy that company follows to plan the amount and the timing of the payments of dividend to its shareholders. There are various factors that influence the dividend policy of the company like availability of better investment opportunities, financial flexibility and various other legal restrictions etc. There are three types of dividend policies that are stable, constant and residual dividend policy. The payment of dividend as determined by a firm's dividend policy will have an impact on the level of equity retained in the firm. Financial Managers are very conscious while making decision regarding dividend policy of the company as payment of dividends will not only have an impact the value of the firm but will also affects the wealth of share holders. A research was conducted by Yuan and Zafar (2010) on data collected from firms listed China and Pakistan to examine the dividend payout ratio and its connection with the practices of earning management.

### **Board Size:**

Board size is defined as the total number of directors on the board of a firm which includes CEO and Chairman for that specific accounting year. An ideal board shall include outside directors, executive directors and non-executive directors. The average size of the board should consist of 9.2 members, and mostly the board members range from 3 to 31. Some analysts think the ideal size is seven. In addition, there is also a thought by the analysts that two critical board committees must be made up of independent members.

It was stated by Jensen, (1993) in his studies that board of directors become less effective in controlling managers due to coordination and communication problem when the numbers of its members increases. It was also found that board size does not seem to have impact on earning management. Positive association has been found by many authors between board size and earning management (Chin, Firth & Rui, 2006) and negative by (Xie, Wallace & Dadalt, 2003) and no relation by (Bradbury et al., 2006).

It was suggested by (Isik, Ozcan & Ali, 2016) that with increasing board size performance of the firm will also improve. The relationship of board structure with earning management was explored by (Alves,

2011) for companies listed in Portugal. The variables used for measuring were board size, board composition and board monitoring committee.

**Cum:**

Another important control variable that can have a major impact on measuring a relationship between earning management and firm value is that whether CEO (Chief Executive Officer) is also holding the office of chairperson or not. According to the guidelines provided corporate governance rules and regulations it is suggested that a board is less likely to perform up to mark in monitoring role as CEO is also the chairperson of the board. Management activities and behavior are likely to be less controlled due to duality of CEO. The problem of duality can be sorted by setting up an independent audit committee who can improve the quality of information provided in the form of financial statements as they will be there to maintain credibility of reports despite of the fact that most of the authors do not find any significant relationship between earning management, firm value and CEO (Bugshan,2005; Davidson et al.,2005).

Ample evidence has been provided by the literature that concludes that a strong board of directors can support firms in preparation of good quality financial statements. A strong board of directors should comprise of independent directors and separated CEO and Chairperson. As per (Beasley, 1996) independent directors with diverse backgrounds and vast experience will provide directions to the management and will make efforts to reduce the preparation of misleading financial statements (Peasnell, Pope & Young ,2006), Thus improving the quality of information provided in the financial statements. It was also found that independent board of directors plays an important role in enhancing the quality of financial reports as they promote conservative approach while preparation of financial reports (Ahmed, Anwer S.&Duellman,2007).

In a market situation where majority of the shares of the firm are owned by the owners of that respective firm, the separation of role of CEO and chairperson is a good approach to constrain over control over the decisions made by the board. In addition, studies have also found that board effectiveness can be reduced by the combination of roles of CEO and chairman (Abdul Rehman & Haniffa 2005; Dechow, PM ,Sloan & Sweeney 1995;Klein 2002).

## Research Frame work

### Variable Description Summary

<b>Variables</b>	<b>Indicators</b>	<b>Measurement</b>
<b>Dependent Variable</b>		
Firm Value	<b>FM</b>	Tobin Q
<b>Independent Variables</b>		
Earning Management	<b>EM</b>	Modified Do Jones
Excessive cash holding	<b>EC</b>	Systematic Risk
<b>Control Variables</b>		
Firm Size	<b>SZ</b>	Natural log of total assets
Stock Price	<b>PR</b>	Daily stock prices
Dividend Policy	<b>DP</b>	Dividend in year t/ market share price
Cumulation of CEO and chairman	<b>Cum</b>	1 if CEO is the chairman of the board, otherwise 0 .
Board Size	<b>BS</b>	Number of board members
Financial Leverage	<b>LVR</b>	Total debt divided by shareholder's equity

## Chapter 4

### Results and Discussions

#### Descriptive Analysis

**Table 1: Summary of descriptive analysis**

Variables	Pakistan						India						Bangladesh					
	Mean	Max	Min	SD	P25	P50	Mean	Max	Min	SD	P25	P50	Mean	Max	Min	SD	P25	P50
FV	97.9286	3754.78	0.612	459.172	0	1.964	269.053	15628.8	0	1556.5	0	0.27	43.8762	1139.04	0.02	177.723	0	3.07
Firm Size	-0.1986	61.0964	- 73.357	8.47841	0	0.02228	0.47368	1	0	0.50119	0	0	0.43677	164.506	- 107.33	24.7587	0	-0.4381
Stock price	0.00112	1.63431	- 3.5032	0.38695	0	-0.0272	-0.006	1.24318	-2.0819	0.28263	0	-0.0211	-0.0041	5065411	- 2.0386	0.72027	0	0.00172
Performance	0.33333	1	0	0.47316	0	0	10.812	15	5	2.86872	0	10	0.66917	1	0	0.47229	0	1
dividend policy	595.651	8631	5.08	1567.81	0	94.6	8.60617	13.35	0.39	3.80497	0	10.39	231.168	1293	5.1	315.445	0	92
board size	0.15652	2.69	-1	0.66254	0	0.03	1078.57	9607.21	11.99	1694.96	0	432.25	0.15652	2.69	-1	0.66254	0	0.03
Cum	9.8	24	7	4.18205	0	9	7.31564	229.16	0	28.1904	0	0.2	9.21053	17	5	4.22484	0	7
Em	0.02348	0.44	0	0.05184	0	0	3300.77	64622	0	9536.1	0	351	3.61571	439.01	0	38.0593	0	0.01
Ec	8.79459	17.24	2.84	3.09	0	9.35	269.053	15628.5	0	1556.5	0	0.27	7.61045	15.91	-0.06	3.06809	0	7.97
Obs.	520						520						520					

**Note:** Descriptive summary of all the variables used in this research as data is represented in this table. Where fair value is represented by FV which is calculated by Tobin Q. EM is abbreviation for earning management which is calculated by modified De Jones. EC is used to represent excessive cash holding. Cum is cumulation of CEO and chairman. It would be 1 if CEO is the chairman otherwise 0. Perf is for performance and is calculated by dividing volume of the stock daily trading in the market to total stock of the firm that are available for trading during that time period. PR shows prices of the stock in the period that is taken under consideration. SP is the stock price of the share and is calculated by taking the daily share market prices for the month included in the period under observation. BZ is the board size and is calculated by noting the number of members in board of directors of the company. DP is used for dividend policy which is calculated by dividing dividend by the market stock price. SZ shows size of the firm and is calculated by taking log of the amount of assets of the firm outstanding in the month in which fiscal period ends.

Summary of descriptive statistics of all dependent, independent and control variables used in this analysis are represented in Table 1. N is the no. of observations used in this study for the variables under consideration. The N for this study is 520. Average value is represented by mean, Max represents maximum value, SD stands for standard deviation, P25 shows the first quartile which represents top 25% value of the specific variable from the data set and P50 shows median value.

Results show that mean values of FV are greater than median value i.e. 97.92861 is greater than 0.00 which indicates positive or rightly skewed pattern means that tail of the data is more inclined on the towards the right side. Whereas the minimum and maximum value calculated for FV is 0.612 and 3474.778 respectively. Similarly, value of EM, EC, Cum, SP, Perf, BZ, DP and SZ have their mean values greater than their median values showing that all these variables are rightly skewed.

## 4.1. Correlation Analysis

**Table 2: Correlation Coefficient matrix (Pakistan)**

Var's	FV	Firm Size	Stock price	performance	dividend policy	board size	Cum	em	Ec
FV	1								
Firm Size	0.3581*	1							
Stock price	-0.0603	0.001	1						
Performance	0.0439	0.1954*	0.0641	1					
dividend policy	-0.0928	0.0332	-0.1289	-0.0128	1				
board size	-0.0409	0.1855*	-0.0193	-0.101	0.2948*	1			
Cum	-0.1376	0.1348	0.2991	-0.0414	0.0832	0.02037*	1		
Em	0.0033	-0.1561	0.0083	0.0102	0.0092	-0.0319	0.0172	1	
Ec	-0.0046	-0.0258	0.1354	-0.033	0.0568	-0.0217	0.1417	0.0741	1

Note:\*, \*\*, \*\*\* represent statistical significance at 10%, 5% and 1%

Table 2 represents correlation analysis between independent, dependent and control used in this study. It can be observed from results mentioned in table 2 that there is a positive relationship between firm size and firm value at significance level of 10%. Similarly, board size is positively associated with dividend policy and cumulation of CEO and chairman at the significance level of 10%

Correlation or association between variables is considered to be treacherous when the values of correlation go beyond the range from 0.8 to 0.9 and probability of existence of multi co linearity also increases between variables. It has been shown from the results in table 2 that value of correlation is than 0.8 means that there are no significant chances of existence of multi co linearity between the variables. The results are well supported by the findings of the previous studies (Mak & Kusnadi, 2005).

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**Table 3: Correlation Coefficient matrix (india)**

Var's	FV	Firm Size	Stock price	performance	dividend policy	board size	Cum	Em	Ec
FV	1								
Firm Size	-0.034	1							
Stock price	0.0474	0.1294	1						
Performance	0.0269	-0.0966	0.2367*	1					
dividend policy	0.2549*	-0.053	0.2453*	0.1102	1				
board size	-0.0251	-0.0372	0.1164	-0.0119	0.456*	1			
Cum	0.1277	0.1327	-0.2598*	-0.3584*	-0.0065	-0.0672	1		
Em	-0.1117	-0.1644	-0.1952*	-0.4365*	-0.2903*	-0.1411	0.015	1	
Ec	-0.0519	-0.0583	-0.0124	0.1953*	-0.0496	-0.0009	-0.0801	-0.1245	1

Note:\*, \*\*, \*\*\*represent statistical significance at 10%,5% and 1% respectively

Results of the correlation analysis between independent, dependent and control variables used in this of data taken from Indian companies listed in Bombay Stock Exchange are represented in table 5. The results revealed from values mentioned in this table shows that there is a significant positive relationship between performance and stock price at significance level of 10%. Similarly results also show that at the significance level of 10% dividend policy is associated with firm size and stock price respectively. Similarly board size is positively related to dividend policy and cumulation of CEO and chairman is associated with stock price and performance at a significance level of 10% respectively. Earning management is also associated negatively but significantly at the level of 10% to dividend policy, performance and stock price respectively.

Correlation between the variables is not acceptable for further processing for regression analysis if it exceeds its defined range.

As the highest value of coefficient is of dividend policy and is 0.2549 which is well in range so we can say that data is free from multicollinerity and can be analyzed through regression analysis.



**Table 4: Correlation Coefficient matrix (Bangladesh)**

Var's	FV	Firm Size	Stock price	performance	dividend policy	board size	Cum	em	Ec
FV	1								
Firm Size	0.3581*	1							
Stock price	-0.0603	0.001	1						
Performance	0.0439	0.1954*	0.0641	1					
dividend policy	-0.0928	0.0332	-0.1289	-0.0128	1				
board size	-0.0409	0.1855*	-0.0193	-0.101	0.2948*	1			
Cum	-0.1376	0.1348	0.2991	-0.0414	0.0832	0.02037*	1		
Em	0.0033	-0.1561	0.0083	0.0102	0.0092	-0.0319	0.0172	1	
Ec	-0.0046	-0.0258	0.1354	-0.033	0.0568	-0.0217	0.1417	0.0741	1

Note:\*, \*\*, \*\*\*represent statistical significance at 10 %, 5% and 1% respectively

Correlation between independent , dependent and control variables used in this based on data taken from companies listed in Dhaka stock Exchange is represented in table 4.From the results revealed in values stated in table 4;it can be said that there is a significant positive relationship between board size, firm value and firm size at significance level of 10%. Similarly results also show that there is positive correlation between cumulation of CEO and chairman and firm value at significance level of 10%.Earning management is also positively associated with dividend policy. Excessive cash holding is also associated with firm size negatively and cumulation of CEO and CEO positively at the significance level of 10%.

Correlation or association between variables is considered to be treacherous when the values of correlation go beyond the range from 0.8 to 0.9 .As the maximum value of correlation is 0.3581 which is between firm value and firm size .This value is less than 0.7 so we can easily conclude that independent variables are free from the problem of multicollinearity and values are competent for regression analysis.

## 4.2. OLS Regression Analysis (Pakistan)

**Table 5: Regression Analysis of model 1**

Var's	Coef.	P>t
FV	0.000148	0.055
emt1	11.393780	0.033
SZ1	(0.246029)	0.037
SP 1	(0.000113)	0.502
DP1	9.898837	0.431
bst 1	(0.264920)	0.036
cumt1	(0.772697)	0.026
Cons	4.351960	0.034

**Dependent Variable = Earning Management**

**Adj R<sup>2</sup> = 43.07%**

**Table 6: Regression Analysis Model 2**

Var's	Coef.	P>t
FVT1	(0.00016)	0.059
ect1	0.68138	0.013
sizet1	(0.00208)	0.862
levt1	0.16834	0.009
Cons	(0.09055)	0.035

**Mediating Variable = EC**

**Adj R<sup>2</sup> = 40.12%**

**Table 7: Regression Analysis model 3**

<b>Var's</b>	<b>Coef.</b>	<b>P&gt;t</b>
FV	(0.00183)	0.007
Ec	(15.28000)	0.03
emt1	8.33067	0.02
SZ1	(0.20835)	0.369
SP1	0.00152	0.33
dpt1	42.57976	0.358
bst1	(0.36821)	0.06
cumt1	(2.07490)	0.07
Constant	4.99501	0.352

**Independent Variable = Firm Value**

**Adj R<sup>2</sup>= 66.69%**

**Results of Regression Analysis:**

Table 5,6 and 7 shows results of OLS regression analysis for model 1,2 and 3 used in this study .Results obtained from regression analysis support that firm value is positively related with earning management and this correlation is significant as indicated by the value of probability which is 0.005.This result is line with our first hypothesis stating that earning management has an impact on firm value .The results from our analysis are also in line with the findings and results of the previous literature available (Abbas, & Ayub, 2019; Kamran, Zhao, Ali, & Sabir, 2018)). Similarly FV is positively correlated with stock price, firm size, board size, dividend policy and cumulation and this relationship is significant as well.

It is shown from the value of adjusted R-square in model which is 43.07%showing that 43% of the variations in variable of firm value can be measured by the explanatory while 57% of the variation in variation in measurement of fair value is due to some other factors. Regression was run in two steps in model 2. Firstly, regression was run without including value of EM while in second step regression equation was run again after adding EM The evaluated results showed that earning management increases firm value because the value of R-square initially in model 2 was 52.98% without the value of

earning management whereas after adding the value of EM the value of R- square decreases from 52.98% to 40.12% showing that earning management increases the firm value. The results obtained support our first hypothesis that earning management has an impact on firm value .The value of adjusted R-square in model 3 is 66.69% which means that 66% of the variation in measurement in the model are measured by the explanatory variables while remaining variation is might be due to other factors involved. The value of adjusted R-square in model 3 is greater than in model 1 i.e. 43.07% and 40.12% respectively giving a support to our findings that earning management has an impact on firm value and firm value is increased by doing earning management. The findings of the study shows that firm value will increase by increase in usage of earning management. The research findings are in compliance with the results of Sloan (1996) and Herwaty (2008) that earning management though for a short period of time has the ability to affect the value of the firm.

We have also checked whether there is any mediating effect of excessive cash holding or not. By using the guidance provided by the study of Zhang Ye,Wei, Kashif Cao,(2019) as a reference it can be concluded that when coefficient of FV in model 5, and coefficient of EC and EM in model 6 and 7 respectively are significant and coefficient of Fv in model 7 is not significant there is complete mediating effect of excessive cash holding between firm value and earning management. Similarly, if the coefficient of FV in model 5 and coefficients of EC and FV in model 6 are all significant or in other case coefficient of FV in model 7 or EC in model 7 is not significant and sobel test is passed means that excessive cash holding (EC) has a partial mediating effect .It is shown from the results of model 5,6 and 7 that there is a partial mediating effect of excessive cash holding between relationship of earning management and firm value. The findings support our third hypothesis that states that excessive cash holding plays a mediating role between earning management and firm value.

### 4.3. OLS Regression (India)

**Table 8: Regression**

**Analysis model 1**

<b>Var's</b>	<b>Coef.</b>	<b>P&gt;t</b>
FV	(0.00077)	0.3333
Ec	0.00001	0.469
emt1	0.00018	0.604
SZ1	0.00062	0.366
SP1	0.00039	0.12
dpt1	0.00040	0.126
bst1	0.00080	0.147
cumt1	1.00000	
Constant	0.00691	0.556

**Dependent Variable =Earning Management**  
**Adj R<sup>2</sup>= 100%**

**Table 9: Regression**

**Analysis of Model 2**

<b>Var's</b>	<b>Coef.</b>	<b>P&gt;t</b>
FVT1	0.00023	0.9
ect1	0.14747	0.405
sizet1	(0.00518)	0.39
levt1	(0.13911)	0.219
Cons	0.07811	0.308

**Mediating Variable = EC**  
**Adj R<sup>2</sup> = 23.55%**

**Table 10: Regression Analysis of model 3**

<b>Var's</b>	<b>Coef.</b>	<b>P&gt;t</b>
FV	0.000160	0.715
emt1	0.000217	0.233
SZ1	0.001850	0.74
SP 1	0.000019	0.91
DP1	0.000586	0.913
bst 1	0.000493	0.263
cumt1	1.000000	0
Cons	0.000059	0.0609

**Independent Variable = Firm Value**

**Adj R<sup>2</sup> = 100%**

**Results of regression Analysis:**

Table 8, 9 and 10 shows the results of OLS regression analysis for model 1, 2 and 3 used in this study.. Results of regression analysis explains that firm value is positively related with earning management as the value of probability is 0.715 which shows significance at significant level of 5%. The result obtained supports our first hypothesis stating that earning management has a positive impact on firm value. The results of our findings seem to be similar with the previous literature. The value of coefficient is too low i.e.-0.00077. Trends in Indian markets have changed after 2011 after which investors have started penalizing managers who seems to be found involved in earning management (Teoh, Welch, & Wong, 1998).

It is shown from the value of adjusted R-square in model 1 which is 100% showing that 100% of the variation in the firm value are measured by the explanatory variables; also showing that there is no variation due to other factors . Regression was run following two step procedure in model 2. Value of EM ( earning management ) was not included in step of regression while regression equation was run again including the value of earning management. The findings from the results revealed that earning

management decreases firm value as the value of adjusted R-square in absence of EM was 40.13% while after adding EM the value decreases from 40.13% to 23.55% showing negative impact of earning management on firm value. The first hypothesis is rejected by our findings which state that earning management has an impact on firm value. The value of adjusted R-square in model 3 is 100% showing that almost all of the variations in the model are covered by the explanatory variables and there is no variation remaining due to other factors. Value of adjusted R-square in model 1 and model 3 is same i.e.100% and 100% supporting the fact that there is no significant impact of earning management on firm value and firm value is decreased by doing earning management. The result also supports the fact that excessive cash has a negative relationship with leverage and firm size as the larger firms are less risky and tends to hold less cash as compared to smaller firms

Mediating effect of excessive cash holding was also check using study of Zhang, Ye, Wei, Kashif, Cao, (2019) and it is found as per guidance that is already mentioned above that coefficients of FV and EC are significant in table 8,9 and 10 of model 1,2 and 3 respectively and sobel test is passed there is partial mediating effect. Results of coefficients of FV and EC from these tables support the third hypothesis that excessive cash holding plays a partial role as a mediator between earning management and firm value.

#### 4.4. OLS regression Analysis (Bangladesh)

**Table 11: Regression Analysis**

<b>Var's</b>	<b>Coef.</b>	<b>P&gt;t</b>
FV	(0.011338)	0.335
emt1	0.877080	0
SZ1	0.021173	0.689
SP 1	0.000036	0.945
DP1	5.179258	0.506
bst 1	0.063465	0.149
cumt1	(0.275365)	0.635
Cons	(0.346939)	0.712

**Dependent Variable = Earning Management**

**Adj R<sup>2</sup> = 97.17%**

**Table 12: Regression Analysis of Model 2**

<b>Var's</b>	<b>Coef.</b>	<b>P&gt;t</b>
FVT1	0.00203	0.514
ect1	0.69785	0.002
sizet1	(0.00313)	0.535
levt1	(0.20533)	0.294
Cons	0.14822	0.306

**Mediating Variable = EC**

**Adj R<sup>2</sup> = 80.17%**

**Table 13 : Regression Analysis of model 3**

<b>Var's</b>	<b>Coef.</b>	<b>P&gt;t</b>
FV	(0.01749)	0.319
Ec	(0.12592)	0.899
emt1	0.87480	0
SZ1	0.06686	0.38
SP1	0.00072	0.348
dpt1	5.23235	0.491
bst1	0.05348	0.253
cumt1	(0.66095)	0.431
Constant	(0.34389)	0.727

**Independent Variable = Firm Value**

**Adj R<sup>2</sup> = 97.70%**

**Results of Regression Analysis:**

Table 13, 14 and 15 shows the results of OLS regression analysis for model 1, 2 and 3. Results of regression explains that the firm value is negatively related with earning management and this



correlation is significant at significance level of 5% supported by the value of probability which is 0.335 as the value of the coefficient is -0.011338. These results of the data collected from Bangladesh rejects our first hypothesis which states that earning management has a positive impact on firm value. The findings are supported by the reliable literature and the value of results obtained from correlation analysis as well (Parvin, 2020; Khan & Akter, 2017). Similarly FV is negatively correlated with excessive cash holding supporting the fact that earning management by doing manipulation in operating profit has decreased (Razzaque et al., 2006) due to implementation of corporate governance which require several changes in reporting disclosures. Intense responses of investors have been received in market in case of firm being found indulged in earning management.

It has been shown from the value of adjusted R-square in model 1 value of adjusted R-square in model 1 which is 97.17% that 97% of the variations in firm value are measured by the explanatory variables while remaining 3% variation in the model left was may be due to other factors. Regression equation was run in two steps in model 2. Value of EM was not included in first step while in second step value of EM was included while running regression equation. Results showed that value of adjusted R- square was 98.41% in absence of earning management while it decreases to 80.17% after adding the value of EM supporting the fact that earning management decreases firm value in Bangladesh. The finding rejects our first hypothesis that earning management has an impact on firm value. The findings are also supported by the results of value of adjusted R-square which is same in model 1 and model 3 i.e. 97.70% and 97.17% respectively showing that earning management does have significant impact on firm value; in fact reputation of the firm is damaged by doing earning management ultimately resulting in decrease in share price and finally loss in firm value.

Mediating effect of excessive cash holding was also checked on data of companies of Bangladesh using study of Zhang, Ye, Wei, Kashif, Cao, (2019) and it is found as per guidance that is already mentioned above that if coefficients of FV and EC are significant in table 11, 12 and 13 of model 1, 2 and 3 respectively and sobel test is passed there is a partial mediating effect. Results of coefficients of FV and EC from these tables support the third hypothesis that excessive cash holding plays a partial role as a mediator between earning management and firm value.

As per (Blanchard, Lopez-De-Silanes, & Shleifer, 1994) who supports this hypothesis that earning management is done by the managers facing financial constraints to increase the firm value; for the same reason excess cash is held to finance new investments and acquisitions resulting in increase in firm value as it is supported by our results of coefficients that excessive cash holding is negatively related to the firm size and leverage. When firms will be holding excess cash it would be on the other hand paying high cost of debt. Excessive cash holdings may have a negative impact on firm value if it is used by the managers for the purpose of earning management to enhance value of the firm.

## **CHAPTER 5**

### **Conclusion**

Earnings management is the method by which by implementing some accountings tactics like (accrual-based earnings management) or using real activities (REM) earning of a specific period is manipulated to produce desired results. Earning management based on accruals is not most commonly used but researchers have given insufficient consideration to earnings manipulation through real activity based earnings management despite of the fact that it is difficult to be detected by the auditors.

In Vietnam discounted cash flow model is commonly used to accelerate revenue and credit terms for customers to improve their profit but that is adjusted in the future in the form of costs incurred in the form of a lower rate ROA and ROE. This study is of superlative importance to investors, managers in case of decision making and business analysis as this will help investors understanding how to generate conditions in which the profitability of a company can be improved. A manager needs to be well-informed of over-exploiting actions that may results in adverse outcomes in the future.

This study examines the mediating role of excess cash holdings on earning management and firm value using panel data from companies that are listed on Pakistan, India and Bangladesh stock exchanges respectively from 2011 to 2019. We measure excess cash by using Dittmar and Smith (2007) cash holding regression model and our findings show that excess cash holding has appositive impact on firm value; implying that firms hold excess cash for a positive purpose. We measure earnings management by

using the proxies of Kothari (2005) and Dechow and Dichev model (1995) and found that firms in Pakistan are more engaged in earning management as the results in a decline in firm value similar to other countries. On the other hand negative trend is found in India and Bangladesh. Firms operating in India and Bangladesh seem to be discouraging managers from practicing earning management despite of the fact that practicing management of the earning will bring personal benefits for the managers in the form of bonuses etc. (Gholami, Nickjoo and Nemati, 2012). However, excess cash holding plays a partial mediating role between firm value and earnings management, signifying that managers use corporate resources effectively by holding more cash and support pecking order theory and the precautionary motive of holding cash to avoid any worst situation in case of financial crisis. Thus, excess cash enables firms to reduce information asymmetry and firms with excess cash are less manipulator of earnings and do not uses excess cash for earnings management.

Modified Jones model was used in detecting earning management but it seems that in context of developing countries it may not suitable and some better predictor is required. Despite of strict measures companies are still found engaged in earning management which is a serious concern. Our results offer several insights for practitioners, academicians, and policymakers. This study tries to make contribution to the existing literature relating to cash holdings and earning management and provides insight into how excess cash affects earnings management and firm value. The findings imply that when the firms use excess cash for productive purposes it may enhance firm value. The findings provide important implications for SEC that firms operating in Pakistan, India and Bangladesh who have excess cash do indulge in earnings management and excess cash held by them is used for value-enhancing activities. Accordingly, SEC may also come out with an optimal cash policy for firms with excess cash. However, the findings of the study have some limitations since the scope of this study is confined to firms operating in Pakistan, India and Bangladesh and the measure of firm value are limited to accounting metrics. Future researchers could investigate if excess cash holding and earnings management linkage varies between state-owned enterprises and family owned firms and the results can be further validated for firms in other emerging and advanced economies.

It is recommended on the basis of our findings that both efficient and opportunistic aspects of earnings management must be considered rather than considering its mere negative phenomenon. It is further recommended that financial health must be considered prior to taking any decision regarding earnings

manipulation of the firm. Moreover, disclosure requirement must be enhanced and audit should be more vigilant so that any manipulation of firm resources by management may be avoided. Finally, the study is limited to the mere emerging economy of Pakistan, Bangladesh and developed economy of India and covers only non-financial sector of these countries.

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