

**CAPITAL UNIVERSITY OF SCIENCE AND  
TECHNOLOGY, ISLAMABAD**



**Impact of Leverage and  
Corporate Governance on  
Earning Management: Empirical  
Evidence from the Manufacturing  
Sector of Pakistan**

by

**Muhammad Faisal**

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

in the

**Faculty of Management & Social Sciences  
Department of Management Sciences**

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*I want to dedicate this achievement my parents, teachers and friends who always  
encourage and support me in every crucial time*



## CERTIFICATE OF APPROVAL

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**(Muhammad Faisal)**

## *Abstract*

This study investigates relationship and effect of leverage and corporate governance features on firm earning management. The data collected for 64 companies other than financial firms which are listed in Pakistan Stock Exchange (PSE) for a period of one decades from 2009 to 2018. The Modified Jones Model 1995 has been applied as proxy of earning management. The chief Independent variable of the study is leverage with three control variables like sales growth(SG), firm size(FS) and return on assets (ROA). The second chief independent variable is corporate governance, with their sum features like Board Composition, Board Size and Family Ownership. The finding of study shows that first chief independent variable has direct positive significant relationship with earning management activities. The two from three control variables sale growth and firm size are also positively link with earning management. However, study investigates no significant relationship between return on asset and company earning management activities. The findings of study also present that board size also founded significant positive relationship with firm earnings. Board composition and return of asset found inverse which do have insignificant relationship Firm size dropped due to multi collinearity problem. Moreover, this study has discussed the relationship between earning management and discretionary accruals. The implications of the study for different stakeholders have been discussed also.

**Keywords:** Earning Management, Discretionary Accruals, Leverage, Non-Discretionary Accruals, Corporate Governance.

# Contents

<b>Author's Declaration</b>	<b>iv</b>
<b>Plagiarism Undertaking</b>	<b>v</b>
<b>Acknowledgement</b>	<b>vi</b>
<b>Abstract</b>	<b>vii</b>
<b>List of Figures</b>	<b>x</b>
<b>List of Tables</b>	<b>xi</b>
<b>Abbreviations</b>	<b>xii</b>
<b>1 Introduction</b>	<b>1</b>
1.1 Motivation of the Study . . . . .	1
1.2 Problem Statement . . . . .	6
1.3 Research Gap . . . . .	7
1.4 Research Questions . . . . .	8
1.5 Research Objectives of the Study . . . . .	8
1.6 Scheme of the Study . . . . .	9
1.7 Theoretical Background . . . . .	9
1.8 Importance of Earning Management . . . . .	10
1.9 Determinants of Earning Management . . . . .	13
1.9.1 Corporate Governance . . . . .	13
1.9.2 Leverage . . . . .	16
<b>2 Literature Review</b>	<b>21</b>
2.1 Earning Management Proxies . . . . .	21
2.2 Empirical Evidence Supporting Leverage and Earning Management Relation . . . . .	25
2.3 Empirical Evidences Opposing Leverage and Earning Management Relation . . . . .	32

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2.4	Empirical Evidences Supporting Corporate Governance and Earning Management Relation . . . . .	33
2.5	Empirical Evidences Opposing Corporate Governance and Earning Management Relation . . . . .	39
<b>3</b>	<b>Research Methodology</b>	<b>44</b>
3.1	Model . . . . .	44
3.2	Population, Sample & Data Source . . . . .	46
3.3	Construction of Variables . . . . .	46
3.3.1	Dependent Variable . . . . .	46
3.3.2	Independent Variables . . . . .	48
3.3.2.1	Leverage . . . . .	48
3.3.2.2	Corporate Governance . . . . .	49
3.3.2.3	Board Composition . . . . .	50
3.3.2.4	Family Ownership . . . . .	50
3.3.2.5	Board Size . . . . .	51
3.3.3	Control Variables . . . . .	51
3.3.3.1	Sales Growth . . . . .	51
3.3.3.2	Firm Size . . . . .	52
3.3.3.3	Return on Asset . . . . .	52
3.4	Estimation Technique . . . . .	54
3.4.1	Three Models for Panel Data . . . . .	54
3.4.2	Diagnostic Test . . . . .	56
3.4.2.1	Redundant Effect Test . . . . .	56
3.4.2.2	Hausman Test . . . . .	57
<b>4</b>	<b>Data Analysis and Discussion</b>	<b>58</b>
4.1	Descriptive Statistics . . . . .	58
4.2	Correlation Analysis . . . . .	66
4.3	Results of Diagnostic Test . . . . .	67
4.3.1	Result of Redundant Variables Test . . . . .	67
4.3.2	Result of Hausman Test . . . . .	67
4.4	Result of Regression . . . . .	67
<b>5</b>	<b>Conclusion and Recommendation</b>	<b>71</b>
5.1	Conclusions . . . . .	71
5.2	Findings . . . . .	71
5.3	Recommendations . . . . .	72
5.4	Limitations and Future Direction . . . . .	73
	<b>Bibliography</b>	<b>73</b>

# List of Figures

3.1	Research Model . . . . .	45
4.1	Relationship between Earning Management and Leverage . . . . .	60
4.2	Relationship between Earning Management and Board Composition	61
4.3	Relationship between Earning Management and Board Size . . . . .	62
4.4	Relationship between Earning Management and Sales Growth . . . . .	63
4.5	Relationship between Earning Management and Firm Size . . . . .	64
4.6	Relationship between Earning Management and Return on Asset . . . . .	65

# List of Tables

3.1	Measurement of Variables . . . . .	53
4.1	Descriptive Statistics . . . . .	59
4.2	Correlation Analysis . . . . .	66
4.3	Likelihood Ratio Test . . . . .	67
4.4	Hausman Test . . . . .	67
4.5	Fixed Effect Model . . . . .	68

# Abbreviations

<b>BC</b>	Board Composition
<b>BS</b>	Board Size
<b>CG</b>	Corporate Governance
<b>EM</b>	Earning Management
<b>FS</b>	Firm Size
<b>FO</b>	Family Ownership
<b>LEV</b>	Leverage
<b>ROA</b>	Return on Asset
<b>SG</b>	Sales Growth

# Chapter 1

## Introduction

### 1.1 Motivation of the Study

Earnings management is a most researched and discussed topic by practitioners, accounting and financial institutions over last few decades. The issue of earnings management is not only happening in advance countries where system develop such as America and Europe, but also in developing economies where system is not so strong, such as Pakistan. Financial reporting has a considerable literature which shows the reason and situations where these amendments got practiced and current research on earning management reveals results of these amendments. Due to big financials scandals of large companies such Enron, WorldCom etc., increase the importance of making effective system to produce qualitative financial reports, by targeting specifically earning quality reports because companies which shows better level of earning are linked with high economic performance in capital market. The importance toward the quality of financial reports and firms earning management is still relevant and important to be research. (Payne & Robb, 2000) have done his research on earnings management in perspective of growing economies received great attention from researchers. The current literature proves that some situations like (trade of shares, breaking debt contracts) may motivate company management under such pressure. Importantly in time of where an organization is stressed with financial issues, in this time decision making process of

managers of the company and their behaviors surely influenced due to burden of debt contract schedule (Iatridis & Kadorinis, 2009).

The attitude of manager and their interest gain more importance when company financial problem connected with free cash flow, financial leverage and agency problem. (Bernard & Skinner, 1996) investigate in his study, that the behavior of managers to invest cash flow generated within the firm in favor of future profitability that are favorable from a manager prospective. According to (Bhundia, 2012) when managers are unable to manage their organizational resources for wealth creation, than they may go for makeup work with financial reporting to show better financial output. Some early studies focused on choosing or selection accounting reporting method and selection of possible financial transaction reporting method as tool of manipulation in financial reporting (P. Dechow, Ge, & Schrand, 2010).

Accrual and real based reporting of financial data are the two main ways available for management to record company earnings. The selection between accruals and real earning tools, the accrual based earnings manipulating has gained more attention because of the overlook by checkers such as the Securities and Exchange Commission (SEC) and by external audit committee. (Li, Li, Xiang, & Djajadikerta, 2020) noticed managers moving slowly to real earnings management because it is little hard to find for regulators and audit committee.

Some researchers extend on it as that earning manipulation activities, which is used most of the time commonly, adjust at the time of when a fiscal year close end, these accruals are easily detectable for auditors and regulatory authorities. likewise, real earnings manipulation, which made time to time not at the end of the fiscal year, is attractive for manager because these adjustments are less easy to detect or to the check of regulators and external auditors (Graham, Harvey, & Rajgopal, 2005). Basically, earning management is linked with the flexibility of accruals accounting to make possibility for manager to modify their accounting information to show or improve the worth of financial statement for strengthen financial position of company. Companies they are financially distressed and facing financial problem with weak internal control issues used more accrual or real earnings management as compare companies with strong internal control.

Conceptually, companies faced financial distress when liquid and total asset of company is not more than the total amount of payback to the creditors. This problem arise during lifecycle of any firm when firm passing with high leverage, and directly affect the firm future economic performance (Avramov, Chordia, Jostova, & Philipov, 2013). If any company facing this type of issue for last few financial years than this cause can lead to bankruptcy. By taking correct and reliable actions firm can easily take off from this kind of situation, but if manager or decision maker do not follow the issue and do not get serious, then the company will be defaulter and will lose the confidence of the investors. However, different authors have found that in their studies, firms with high external debt problem have great advantage to fit their outcomes to gain a specific target and misguide investors regarding their poor financial position.

Arthur Levitt, former executive personality who work as SEC chairman, he shared his observations over earning management practices and the impact of these activities regarding companies' allocation of resource. He mentioned that management abuses of "big bath" restructuring charges, premature revenue recognition "cookie jar" reserves, write off of purchased in process R&D are threaten the authentication of companies annual reports. The SEC chairman suggest the need of time which is required urgently and has to establish an earning management authority to evaluate and check on firms that involve in earning manipulation activities. The Arthur Levitt also force practitioner to hire more audit firms to recheck companies annual net earnings and will set up enforcement of disclosure requirement. Literature define earning management as "the manager of the company interprets result of annual reports during recording accounting activities to alter outcome to either mislead some stakeholder about the actual position or financial achievement of the company or to retain the promise made to different stakeholder that depends on reported financial figures in companies audited reports.

Financial economists have developed many leverage relevance theories by controlling the capital market assumption of Modigliani and Miller. As we discussed in the above paragraph those companies that have more external debt from institution lender or individual shareholders increase the chances of bankruptcy of a

company which is turn shake investor faith in capital market. But the manager of the companies is free in this choosing capital structure use debt more or equity intensive that firm managers formulate the financing of the organization resources lead to the concept of capital structure selection. The existing research or study on earning management it has been noticed manager of the companies used both options debt and equity to finance their company asset.

The higher financial leverage benefited for the firm in economic boom period, in recession cycle it has negative impact on firm profitability. Companies enjoys during the boom when they have huge number of sale order, during revolution they can gain more profit and can easily commit to their contractual commitment. When situation get reversed where companies doing business in recession when they have a less sales volume not achieving the break-even point and have to payback much to their creditors but earning less on their investment, this era is a sign of financial death and the highly leveraged firms become bankrupts.

Few studies highlighted that leverage has a significant positive impact on earning management when companies involve in to show less the likelihood of breaking debt agreements and give priority to more the bargaining value of companies during debt dealing by (DeAngelo, DeAngelo, & Skinner, 1994) and (Chamberlain, Butt, & Sarkar, 2014) . Other studies on leverage highlight that upward trend financial lead to earning management with the objective of effecting operating cash flow of the company. (Vakilifard & Mortazavi, 2016) discussed that once financial leverage is growing upward side, the manager of the company have more fear about incentive decreasing for accrual based earning management.

The second chief variable which play key role in manipulated the company that linked with the governance structure of the company. The previous studies claims that strong and efficient corporate governance can restrict accrual based earnings manipulation (Vakilifard & Mortazavi, 2016), on the other hand the better inside control on real based earnings manipulation is not yet clear, especially for firms that are highly financial distressed. if the manager of the company does not perform their work with sincerity and do not disclose the risky information to their top leaders or in their financial data, then this type of attitude can be

cause of economic blast for the whole system. Stakeholders of the company can avoid this type of serious threat after making good internal control. This is such a need to avoid economic adversities, shareholders should take interest to build strategies with effective system to observed and avoid the opportunistic behavior of managers. and staff agency theory contemplates.

Good corporate governance structure or mechanism gives satisfaction to the linked people that the company management performing best and using effectively its available resources. Corporate governance structure entertains the companies to minimize the problem that occurs between inside managers of the company and outside stakeholder of the company. If the corporate governance works effectively, it will not only minimize the information asymmetry for improving managerial efficiency but it also increases the firm economic profitability by stopping managers to get involved in illegal acts.

A numerous researcher has observed and express their views as market participants in the capital market gives space on a higher reputation to the firm in availability of a better-governed system. It is normally accepted that board composition plays a key role in governance activities, the composition of the strategic corporate governance of the company dictate company future goals (Topal & Dogan, 2014).

The Pakistani law regarding board size and board composition (2002; 2012), explained an independent non-executive director as “directors who is not a member with any listed company, or promoting any other company, or on the ground of family terms, whether pecuniary or otherwise, with listed companies”. The credibility of independence corporate governance can examine from the board decisions whether such board members can be freely perceived as being able to take independent business decisions without being involvement to any apparent form of favoring. Specifically, this study focused on to evaluate whether corporate governance in the kind of non-executive directors as considered in effective systems, can mislead company financial position in Pakistan. Our investigation will explore in literature on corporate governance and external debt practices linked with firm performance by giving evidence from an emerging manufacturing industry of Pakistan.

## 1.2 Problem Statement

Earning management affect the quality of financial reporting with different techniques. For Instance, Cookie Jar Reserve, Big Bath, Premature Reserves etc. Research on earning management issue is continued from last few decades, to produce a qualitative financial reports, due to large financial scandal in developed and developing countries. The authors like (Modigliani & Miller, 1958) have developed financial theory, and determinant of earning management. In literature we can find the major four theories like 1) Tax-Based Theory 2) Agency Cost Theory 3) Asymmetric Information and 4) Signaling Theory.

Extensive studies on this problem have examine that agency relationship start when one of the authorized person shared power with another person to do work or service and make him as authority in decision making. DE fond et al (1994) highlight that the leverage has positive impact on financial reporting when firms willing to reduce the likelihood of changing debt agreements and increase bargaining value of companies during debt negotiations. High financial debt can also be a way for management to change the financial result.

On the other hand, Jelinek (2007), (Zamri, Rahman, & Isa, 2013) Afza and Rashid (2014) also support that financial debt make able to show less earning. The positive accounting theory explain, companies that have more political interference, their manager will go for alternative accounting method to hide the current period earning for the next financial year and will report earning minimized. Some other studies do not agree with agency theory, their studies states that the biggest firms have larger board and also effective internal control, also have some boundaries to be audited by big 4 audit firms, so the managers of the company get less involve to manage earning becomes smaller. Existing literature have a mixed result between leverage, firm size and earning management, due to inconclusive result these findings indicates the research gap.

The accounting system allows manager to choose different accounting standard to report their financial data. Some of the manager's approach real earning management and some of the manager used accrual base earning management. Some

researcher found in their studies the real earning management is more favorable for accountant to manipulate accounting data which is less easy to detect for auditor. Some says accrual base accounting is more favorable to adjust accounting data.

They have found different determinants of this manipulation, some of researcher highlighted the Tax Evasion, other highlighted the capital structure and few argue on company internal control. There is no conclusive result, existing literature signaling for future research in Pakistan with combination of internal control and capital structure. Some studies show leverage has significant impact and few highlights insignificant. Some says large companies have strong internal control and less chance to play with accounting figures. Some studies find the small companies where few people have company information there will be less impact on earning management. The result of these arguments in Pakistan is pending to test.

### 1.3 Research Gap

In current literature, it is really hard to find out collective effect of leverage and corporate governance features on financial reporting. Previous researchers, particularly in context of Pakistan manufacturing industry, have taken one or the other as independent variable but not both of them collectively. However, keeping in view the significance impact of each of them on financial reporting, it is desirable to consider both of the them as the independent variables of financing reporting. Therefore, this research inculcates collective effect of corporate governance features and leverage on earning management.

Furthermore, corporate governance has numerous features like Audit Committee, Ownership Structure, Board Size, Board Composition, Qualification, Accountability, Transparency etc. However, inclusion of all these features in a model reduces the statistical significance of corporate governance. Therefore, this study has considered the three main features of corporate governance such as board size, board composition and family ownership which are reinforce the internal control mechanism. However, while analyzing statistically the impact of these features, it has

been discovered that family ownership leads to multi collinearity issue. Therefore, family ownership has been dropped and the other two features of corporate governance, board composition and board size, have been retained to fill the existing gap.

Another shortcoming of previous studies has been noted that they were conducted on Pakistan manufacturing industry for maximum five years' data. It must have reduced statistical reliance of their estimated results. Therefore, this study expands time frame from five years to ten years.

## 1.4 Research Questions

- i. How for corporate managers exercise their discretion to manipulate financial data?
- ii. How do independent variables (two characteristics of corporate governance and leverage) collectively affect the reporting of firm financial data?
- iii. How do selected firm specific control variables such as Return on Asset, Firm Size and Sales Growth affect earning management.?

## 1.5 Research Objectives of the Study

The key purpose of this research is to investigate the collective impact of leverage and governance control on earning management. The importance of this research is due to test the global phenomena of corporate governance by evaluating the impact of corporate governance for Pakistan's public listed companies. specifically, this study attempts to investigate corporate governance has impact on earning management in form of Board Size, Expertise of Directors and Ownership as Governance Variable. The financial policies and accounting standard of the country have influence on outcomes of company's financial activities. The major input in literature of this study is to extend literature with empirical result lending support for the espousal of good governance. The corporate governance globally debate has

historical and build vast theories on the assumption that some strategies improve the formal independence of board. This study has two chief independent variables and one dependent variable. The leverage and corporate governance discussed as independent variable and earning management as dependent variable. This study based on four major manufacturing sector of Pakistan. The data gather from Security and Exchange Commission of Pakistan (SECP) of public listed companies and their annual financial reports. The objective of the study is to find the combine effect of independent variables on dependent variable.

- i. To estimate the proportion of discretionary accruals to total asset.
- ii. To investigate collectively effect of Corporate Governance with two characteristics and leverage on proportion of discretionary accruals to total asset.
- iii. To investigate the impact of firm specific control variables on earning management.

## 1.6 Scheme of the Study

This study has major six chapters, chapter one is introduction which covered importance of the variables, research gap, hypothesis of the study, objective of the study. Chapter two is theoretical background which linked with background of the study, chapter three based on explanation of the selected independent and dependent variable. Chapter four define the methodology of the study, construction and estimation of the variables. Chapter five discussed the results of the model of the study and chapter six is the conclusion of the research and also recommend and define the limitation.

## 1.7 Theoretical Background

Earning management play a key role in financial reporting which becomes the parameter of future decision about investment in the company stock. Managers of the company have multiple choices to record their transaction. They can get

advantage of the flexibility of both IFRS (International Financial Reporting Standards) and GAAP (Generally Accepted Accounting Principles) in selection among different accounting procedure when balancing company earnings and other financial outcome related firm performance, which could be a reason for reduce quality of financial data. Managers of any firm who are ambitious about their career aspiration and desired to get high salaries will thus to end to manipulation in earning management (Xie, Davidson III, & DaDalt, 2003).

## 1.8 Importance of Earning Management

In other words, earning management is the modification or alteration of accounting entries to present expected level of investment return in order to meet shareholder expectations or to meet the targeted goal of the company. (Healy & Wahlen, 1999), also discuss this theory in their study, using different ways to manipulate company earning is happen when manager apply their personal observation instead of actual value in their annual financial data and restructuring transaction to manipulate financial data to mislead companies investor who have invest their capital in company stock or about to hide the financial performance of the company in whole fiscal year or to effect contractual outcomes with banks or any other lending institution that depends on audited financial reports of the company. Leuz, Nanda, & Wysocki, (2003) also report in their findings that Earnings management is the way of firms' to show company financial performance for the year by inside manager of the group to divert stakeholders or to hide promised future outcomes.

Many of the prior studies from extensive literature have examined that most of the managers approach accrual base earning management to achieved desired level income or set goal (DeFond & Jiambalvo, 1994) (Lazzem & Jilani, 2018) (Sweeney, 1994). However, manager also have substitute to manipulate the earning, in other ways manager may go for real earning management. That is why many of the studies deal with leverage as one of chief variable in comprehensive view instead of isolation. In addition, companies that have financial problems completed successfully deficiency rectification undertake less accrual and real earnings management

compared with companies that have not undergone deficiency rectification. The current study focused on this issue which highlight in the vast literature by empirical result about the involvement and effect of corporate governance including board composition and size and leverage on earnings management in Manufacturing Industry of Pakistan. As noted by in previous research some reason can influence for smooth cash flow to reduce the tax burden plus effective change in control mechanism of the company or to mediate labor negotiation or to respond or handle the bid. This topic becomes hot for financial analyst due to large recent financial scandals of big companies in developed countries such as Enron, and WorldCom.

(Goncharov & Zimmermann, 2005) suggest through his study and says the key connection with these scandals is just phenomena of earning management. The theme behind the scene in Enron's case was the firm will purchase an asset, like power plant, they have report in their book of accounts the projected profit, when Enron had not made one single cent from this investment. During projection the management ignored the expected loss and covering revenue from the power plant as projected amount, instead of covering the loss side, the Enron management making strategy of transfer the asset (power plant) to an off-the-books corporation where the loss would go unreported. These accounting techniques enabled Enron management to write off unprofitable activities without losing creditor trust.

Theme in case of WorldCom which has gain considerable attention of market participants and present itself most growing company in the communication sector with completion of sixty-five major acquisitions successfully. WorldCom used amount from his capital almost 60 billion dollars to acquire these companies and the ratio of leverage in this activity was 41 billion dollars. Preparing financial statement company adopt efficient accounting interpretation. With this effort management able to show that profits growing. WorldCom reported low millions of dollars in assets in one quarter when acquired other companies, with current situation, it "added these charges against profit the value of company expenditures calculated for next term. At last major decrease in asset reported in the running fiscal quarter but lower in next quarters, so management tried to manage profit

side would seem to be upper side. The end result reveals main three issues in failure of WorldCom: the major one is failure of corporate governance mechanism while acquisition, the leading one loans to senior executives with high profile, and in least way risk to governance mechanism created by chumminess and lack of arm's-length dealing.

American based security systems organization which was working as blue-chip out of Princeton, New Jersey which known as Tyco. In start of twenty first century, this story highlight that Chief executive office and Chief financial controller, used round about 150million from the firm and showed in financial reports about 500 million stable growth in earnings. Kozlowski and Swartz had covered money through approving unapproved loans and stock sales. In year 2002 this scandal highlight by security exchange commission and district attorney of manhattans during investigation they have founded the questionable accounting practices.

The Freddie Mac which was Central House Mortgage Loan Corporation, also known as, US federally-backed mortgage financing giant based out of Fairfax County, Virginia. In 2003, this issue highlighted that Freddie Mac had reported over five billion dollars' earnings in financial reporting which make amazed to market practitioners and open query on this reporting. Chief Operating Officer, Chief Executive Officer, Chief Financial Officer, and former Senior Vice Presidents Robert Dean and Nazir Dossani had shown growing earnings with their personal interest in company financial books. The security exchange commission audited into Freddie Mac's annual financials and accounting method and their techniques of reporting financial statement. Than the management caught in illegal act and Glenn, Clarke, and Brendsel all people got fired from their jobs and the company was fined for \$125 million.

Indian based firms which known as Satyam Computer Services was dealing in accounting issues from back office but mainly they were providing IT based services head was located in Hyderabad, India. This case was open in year 2009, when company management report \$1.5 billion earning in their financial reports. Later this financial scandal is considering one of the big financial scandals in Indian history. This issue highlight by India's Central Bureau of Investigation they

investigate the executive chairman, Ramalinga Raju, had manipulated company revenue, profit margins, and companies cash flow. At the time of investigation, founder of the company accepts it to the mislead in a letter to the company's board of directors. later Raju with his brother got punished in charge of breaking public trust, conspiracy, fraud, and manipulation in reports.

## 1.9 Determinants of Earning Management

The prior literature reveals “different theories have different purposes and therefore different validity criteria and different implications”, but two of all like agency and stewardship have gain centralized position upon the firm future outcomes and to gain decided corporate goals. The theory of Stakeholder is defined as the benefit for the company shareholders. Resource dependency theory is based and discussed the larger and wider involvement of the organization board.

Except competing with theoretical perspective, we focused on that agency and stewardship theory is a continuation of theoretical perspectives. We concur with the opinion of (Daily, Dalton, & Cannella Jr, 2003) that “a multi-theoretic approach to corporate governance is essential recognizing the many mechanisms and structures that might reasonably enhance organizational functioning” and attempt to position the stakeholder and resource dependency theories along the agency-stewardship continuum.

### 1.9.1 Corporate Governance

Applied agency theory to develop the connection between firm size and earning management (Ali, Noor, Khurshid, & Mahmood, 2015). They have founded the significant relationship among firm performance and earning management, big firms prefer to do earning management because they are facing from outside or inside pressure to achieve the target of finance provider. (Saat, Karbhari, Heravi, & Nassir, 2011) found in their studies that independence of is most necessary if it is under observation properly by all stakeholders, and specially companies

executive board members, by their very nature, are not independent of the management. (Swastika, 2013) does not get agree with agency theory, they argued big firms are controlled by large internal members, large companies also restricted by law to be audited by top four chartered firms so the chances of manipulation in earning management becomes less.

Beside, steward theorist claims that internal manager or directors are more useful because they have wise and deeper information of the firm and industry as well, the external body and directors they are just as designated as non-executive directors, given their legal responsibility and their own vested interest in the firm.

A firm position varies with time due to change in internal and external control which is continuum of steward and agency theory. This theoretical perspective may explain a deeper understanding for the company internal control depending on the stage of the firm in its life cycle. Basically this will effect positively the selection, nature and expand of corporate governance criteria within an organization. The most practical exampled gives the direction on corporate governance the majority of board members may supposed to be as some non-executive directors (ASX Corporate Governance Council, 2003; OECD, 2004; Code of Corporate Governance Pakistan, 2002;2012).

Some researchers suggest in their studies Corporate governance is only way for controlling earning management practices at company site (Mersni & Othman, 2016). This type of mechanism gives equal strength to all field players to connect with each other and to reduce the agency conflict. Corporate governance mechanism will not only create a governance control within the organization only for stakeholder's board of directors but it will make possible for external player including customer, supplier employees etc. to be in touch with each other. Most probably it will also play a key role to connect the society and community as a whole which will help to reduce the agency conflict. With the passage of time, concert for corporate governance has been getting more priority in emerging economies of the world due to facing issues such weak control on management and the problem of reoccurring bankruptcy. Few of researchers claim in their research that managers may move to accounting methods that help to show increase income to cover poor

financial performance of the company (Campello, Giambona, Graham, & Harvey, 2011). Many of research conduct and highlight that management play role to show better firm performance.

Ammann, Oesch, & Schmid, (2011) gather data of twenty two growing companies with sample of six thousand six hundred and sixty three firms for the period 2003 to 2007. This study indicates that corporate governance has significant effect on firm financial decision. Another study (Boubaker & Sami, 2011) used data of two hundred and forty five Chinese listed organizations from 2001 to 2003 to find the corporate governance relationship. Through different techniques his studies results create an internal control mechanism score, the analysis of the study disclose that corporate governance has a positive relationship with on return on asset and return on equity.

Research conduct by Danoshana & Ravivathani, (2019) also support this argument of effective corporate governance mechanism on organization financial data of listed non-financial organization in Sri Lanka using a sample of twenty five top firms for five years 2008 to 2012, same variable ROE and ROA have been studied as tool for calculation of firm financial value and provide evidence through their study a significant positive relationship between corporate governance and the company's financial performance.

Besides this, (Zamri et al., 2013) argued that few number of directors in board size can perform effectively toward good financial performance of firm and board work efficiency because its make able communicate with all board members and make decision easily. (Arora & Sharma, 2016) continue Jensen's studies result. The internal control mechanism qualities in respect of board size and board composition have an effective and significant effect on firm value and its financial position in capital market. Some studies related to this in Pakistan perspective.

(Javaid & Saboor, 2015) conducted to see the importance of corporate mechanism on firm performance, they gather data of fifty eight firms that are registered in Karachi Stock Exchange ranging for the period of five years from 2009 to 2013 and measure a Corporate governance mechanism and earning quality different

attributes. Result of their research proof that there is a positive relationship between governance mechanism and firm's financial measures (ROE and ROA).

Likely the study of, Ahmed & Hamdan, (2015) also extend the analysis of previous studies, that Corporate impact on a firm's financial measure are linked positively with each other. They observed from forty two Asian listed companies from Bahrain for five years period and show in their analysis these two corporate governance and firm earning quality have positive relationship (Belkhir, 2009) state their view on impact and presence of chief executive officer dual role will help to minimize the agency cost and which will lead the outcomes in generating firm performance in good manner, he claims when a member of board have leading dominant position and have power to control the financial and operational matter of the firm, studies analysis show that the multi role of chief executive officer can manipulate the corporate earning towards higher side. (Bukair & Rahman, 2015) give support to this study result.

### **1.9.2 Leverage**

Vast research conducted on this area and still continued on earning management issue many problem and key factor has been discussed like management may abuses of big bath, miss represent the charges, might be used premature revenue recognition, cookie jar revenue reserve and write off of purchased in process can create serious problem for credibility and quality of annual published reports. The reason behind, may they manipulate to fulfill shareholder expectation and may have pressure from top management within the organization or from external entity, may managers change the financial data to achieve the expected level of outcome that is commonly linked to an organization financial performance.

Therefore, from last few decade, financial performance of big companies has attained a special attention of research scholars and many of studies have been done to investigate the reason and their effects on firms earning behavior. Most of the previous studies have found leverage is also one of the main variable that has positive impact on firm earning behavior and which create space for manager

to reshape their financials. Leverage is an important variables that help stakeholder to understand the firm financial worth to payback creditors installment, so it is common practice in big firm to change their earning to meet expectations, (Ardison, Martinez, & Galdi, 2012).

Financial leverage firms culture put pressure on manager due to debt covenant cost and controlled audit, those company that have high external debt liability which will lead to limit manager opportunistic behavior and will become a cause of reduce in earning management activities. Debt covenant hypothesis of positive accounting theory (Watts & Zimmerman, 1986) presented that the close organization which is not fulfilling his credit agreement with creditors due to gap in accounting procedure which provide space to the management to adopt the recording method which deviate the accounting profit from the current fiscal year to the coming up. The relationship exists, between debt contracts and opportunistic behavior of manager regarding earning manipulation which is a direct possible relationship between debt repayments and earning management.

The United State of America has promulgated the Sarbanes-Oxley Act (SOX) in 2002 after the big financial scandal like Enron, the research to develop link between financial distress and earning management in some context, including developing markets, can shake our concept about the manager opportunistic attitude and ways to create hurdles regarding earning management. Empirical evidence in Pakistan, which have developed specific market contexts into account, can enhance a global aspect of this issue, the increase in debt level becomes the reason of reduction in future portfolio, in which the company may lose positive NPV but low ROA projects. These kind of under-investment issues effect negatively the firm future growth and make the firms less attractive for creditors to invest in the company stock. In this scenario company also face the problem of reputation which become the cause for company to stay for long in the capital market. When managers have to deal with this specific issue they have pressure regarding their personal reputation as well as job security.

The prior studies discussed that leverage firms do not want to break the contractual agreement and present the strong financial position financial position through

accrual based earning management. Those firms they have structured their capital with more external sources and have huge volume on leverage in their capital always show green view through upward earning management tool to accomplish the venture commitments. Many researchers highlighted the firms involves in real earning management beside of accrual based when they are audited by Big 4 audit firm. (Pong, Chia, Lapsley, & Lee, 2007) discussed that highly outsource firm is under observation by creditors which leaves less space for the decision maker of the company to engage in earning management.

The current extensive research have been conducted on the market and book value of loan by (Yoon & Jang, 2005), (Titman & Wessels, 1988), (Rajan & Zingales, 1995). The effects of external debt on company earning manipulation behavior have been studied from different economic or theoretical ways, but these hypotheses are still inconclusive as per current empirical evidences. The current literature on earning management reveals inconclusive result, this study aims to add in literature on earning management issue in Pakistan manufacturing sectors. The contemporary globalization accounting theme, specific characteristics of different countries are worth considering Pakistan is also included. Earnings management implication can be different between countries due to their accounting standard and international evidence should be taken into consideration (Alzoubi, 2018). The leverage impact on firm financial issues conducted in developed like USA, UK and still continued for conclusive result. This research is limited in developing country like Pakistan.

Existing literature has evidence mixed outcomes and the effect of debt financing is very limited which need to be investigated special in developing countries where accounting standard are weaker. Top management interest, in respect to reduce external debt borrowing cost, may chose different accounting procedure to show growing financial values in term of credit worthiness (Waweru & Riro, 2013). Research on firm performance has been conduct in Pakistan from different perspectives including corporate governance, audit committee or leverage but limited. The current gives direction like the relationship between debt ratio and firm profitability is more significant where managers select capital structure debt

extensive. Debt overhang theory claims that when the company is more indebted than manager will post most of opportunistic entries from current investments are mean to pay to loan provider through interest payments.

Prior literature also reveals that international affect and highlight empirical proof that besides accounting standard multi dimension of preparing financial statement other system such as legal system, shareholder security, regulatory check n balance and managerial incentives also explain the change in earning management across the global. Where good corporate governance controls is weak, firm managers are relax to transfer from the interest of the principal, (Adams, Hermalin, & Weisbach, 2010) added the board of directors along its legal fundamental responsibilities, can develop the system of decision making on top management level, also can make effective control on managerial attitude, and make secure principal's financial. The research on board composition and structure is continuous to reduce issue from an agency theory perspective. Some past studies and their authors discussed that dominant number in firm boards from external side , must be exist as non-executive with dominant position on internal control mechanism (Hermalin & Weisbach, 2001), (Fauver & Fuerst, 2006), (Adams et al., 2010).

The governance mechanism research is little hard to understand and difficult to interpret by their result analysis that the board composition, board member's role and their influence level on corporate decision making have been discussed from a number of theoretical observations, which have been define in written form which called as theories of corporate governance. The realistic purpose effective board composition in sense of an agency theory that should be link with effective check and balance or control system is compulsory to be assure and secure rights of investors from manager's personal benefits and interest. Agency theory defines that boards of directors must be consider with maximum number of non-executive directors which may from outside, independent powerful directors and chairing position of chairman (Bosch, 1995; OECD, 2004; Code of Corporate Governance Pakistan, 2012). The stewardship theory define board role as that firm performance with high standard will be observed to a maximum of board directors as they are doing best to increase shareholders' investment instead of their

own interest. (Maury, 2006) interpret as the executive board members have better knowledge of the company and understand the business nature, this is the reason they can run companies matter in better way as compare with outsider executive directors and inside board directors take better decisions for future growth. In current situation the long research follows the same way in the agency and stewardship theories, a design aimed at uncovering a single segment of the corporate governance mechanism rather than a holistic view of how boards add value.

# Chapter 2

## Literature Review

Studies on Earning management conducted by many research authors in different perspective. (Schipper, 1989) have done and define it, as international interference in manipulation of financial statement in order to get private or other company targeted goals. (Bloom, Sadun, & Van Reenen, 2015) explain financial reporting is the source where manager do changes in accounting data to meet benefited opportunities for the organizational benefits. To understand it deeply, we can write earning management is the process of manipulation of accounting data in financial reports to show better performance in respect to fulfill demand and to achieve firms goals. Zaidi & Paz, (2015) added this is not happen always because of change in accounting value somewhere likely linked with selection of an favorable accounting method from Generally Accepted Accounting Principles (GAAP).

### 2.1 Earning Management Proxies

As we discussed manipulation in financial reporting have discussed in literature for so many studies with empirical cases in which it has been applied and also discuss its consequences not only firm position but also on over all capital market of the country. Some latest research focused specially on adopting accounting procedure and selection of accounting method as proxies of change in company earning. (Graham et al., 2005) reveals in his study that manager of the company gives

favor to change earnings through real economic decisions or real activities rather than through accruals basis. J.-B. Kim & Sohn, (2013) analyzed this argument as accrual based activities is carried out when fiscal period is close to end then manager knows the profit before it is engineered, so the manager can know how much manipulation is needed to achieve the targeted profit. Techniques that can be performed in earnings management in real activities include sales manipulation, overproduction, and discretionary cost reduction (Roychowdhury, 2006).

The most common and effective tool used for measuring earning management discretionary accruals, that is, modified ones model which has followed by many researchers like (P. M. Dechow, Sloan, & Sweeney, 1995) Jones has define this model to measure discretionary accrual management in 1991. management through discretionary accruals that was further modified by Dechow et al. (1995) to remove the conjecture propensity of Jones' 1991 Model and to calculate the discretionary accruals accounting for the error when managers use their judgment over revenues. Asim, A. & Ismail, A. also practiced the same model for earning management calculations.

There are two major ways of earnings management: one is noted as efficient earnings management which defines as to make better earnings information while communicating or sharing internal information and the other mode is opportunistic earnings management which concerned with manager behavior that tool earnings proxy opportunistically to show increase in economic activities. (Bhagat & Black, 2001) shared supportive result that is continuation with the increase in personal utility. The other researchers including following (Subramanyam, 1996), (Bartov, Gul, & Tsui, 2000) and (Krishnan, 2003) extend literature on the measurement of accruals other than non-discretionary as proxy for earnings manipulation, which has connection with the efficient perspective, because accruals other than non-discretionary accrual have a positive impact with future outcomes and conclude with have significant relationship.

Few studies argued on the differentiation between these major ways of earning manipulation which are valuable for specific main three reasons. First, (Gunny, 2010) show his concerns about dislike accruals, real time business transaction on

earnings management has creates direct cash flow problems. Second reason is highlighted by (Fields, Lys, & Vincent, 2001); (Zang, 2012) they say most of the companies use both possible choices of manipulation at the same time, which creates the issue of showing at budgeted conclusions about the collective impact of manipulation in earnings. (Ning, 2009) discussed third reason, the real based activities of earnings management has been observed at recent scandals such as Enron, it has often been ignored in the literature.

The existing major ways for making change in company earnings that noted as (AEM) and (REM). AEM means the alteration in annual reports procedures within Generally Accepted Accounting Principles (GAAP), whereas REM constitutes the modification in current transactions which made during the current financial period (Roychowdhury, 2006). Literature proof many significant studies in past have highlight accruals based activities to report earning manipulation in financial reporting. Some prior studies like (Graham et al., 2005) which are investigate on real earning management suggest with their analysis result that managers who have personal interest mostly involved in real based activities instead of accrual based because real based accounting transaction is little bit hard to trace as it manipulate through financial which done during the year.

In contrast Cai & Zhang (2011) noticed in his study accrual based activities is the most common tool in earning manipulation process for manager to make accrual adjustment at the period end. Literature reveals mixed result as tool for manipulation in earning.

The extensive literature also reveals tools to reduce the earnings management practices through different ways like efficient corporate governance is one of them. (Teshima & Shuto, 2008) have observed the good corporate governance structure and its monitoring mechanisms is big hurdle in manipulating accruals earnings management. (Graham et al., 2005) found this way of manipulation in earning has not discussed and has not pick as much attention in the extensive literature. With the evidence, the impact of company governance control mechanism on real based earning activities has not been studied extensively as accruals based earnings management have done. A remarkable research work has been done

on accrual based earnings activities by (Cohen & Zarowin, 2010). (Becker, DeFond, Jiambalvo, & Subramanyam, 1998) argued accruals based activities as a broader measure because accruals work collective the impact of available accounting method and operational activities, finance related action and investment real decisions. (Al-Fayoumi, Abuzayed, & Alexander, 2010) added that possible difference of volume and timing between accruals earning management and real earnings management studies might be due to an absence of causal models that perfectly measures earnings manipulation through real activities in early studies.

There are different concerning factors that effects or motivate manager by selecting different proxies for change in financial reporting, any specific type of earnings management is hard to find. (Krishnan, 2003) noticed in his research analysis that outside audit committee is mostly consider as an investigator for implications of corporate governance mechanism and has main responsibility for creating bars and finish the opportunistic behavior of managers in manage their earnings. The composition of a free and effective board of directors and the presence of empowered audit firm can make significant influence on opportunistic behavior of manager. If organization does not have effective board of directors, then weak corporate-governance structure become a reason of earnings management as proxy of manipulation.

The firm size and shareholder access to internal information also play important move in avoid opportunistic earnings management motivations. (Siregar & Utama, 2008) studied Company size in his study which reveals that the manager of small company can hide and control internal information easily which motivate them to modify in contrast the larger firms are liable to disclose information to public or shareholders in this environment , they are less easy to change in financial data. (Bhattacharya, Daouk, & Welker, 2001) also find that Information of large firms easily reachable because they are bound to share annual reports publicly and have no costs to get access for this data, but in SME small medium enterprises data is not available publicly have to pay to get access for internal data. The big companies are more easily to audit or scrutinized by creditors or regulatory authorities than small medium organizations, the large type firms are mean to

involve in less opportunistic earnings management than the small medium entities. However, the existing literature has mixed result some studies do not examined these mentioned possibilities.

Owners of an organization also effect working mechanism of a company adopt, including they also give their own input on financial activity for personal interest. Our study focused on ownership structure and its type of influence on financial activities. Existing literature highlight the institutional investors can control earnings management behavior of managers, (Balsam, Bartov, & Marquardt, 2002) agreed on that institutional investors, they most concerned lenders, they are more capable of conducting audit of firm earnings management as compare with individual investors because individual has time issue and also difficult for individual to get access to company information.

## **2.2 Empirical Evidence Supporting Leverage and Earning Management Relation**

Leverage falls in financial strategy planning it creates pressure on management to generate the rate of return on investment by multiplying a higher return on creditors investment than the cost of using capital. If companies return on investment is higher than the before tax and interest rate paid on borrowing money than we can call that leverage is positive. Leverage describes the company's ability with its own capital to guarantee its debt and shows the proportion of company spending that is financed by shareholders (own capital) and the cost of borrowing.

The main points of evaluating the connection between leverage and earning management are discussed in literature as accrual based or real based data manipulation. The connection of these two financial leverage and earning management with Accrual based and real based earning management techniques proved significantly with extensive literature. Few studies on earning management activities reveal that increase in external debt creates the pressure on managers to manage earnings to decrease debt covenant cost. The study of (P. M. Dechow et al., 1995)

directly proof and extended on this argument that increase in loan motivate financial reporter to manipulate company earnings toward higher side and have to show good financial position.

The financial distress theory of Fung & Goodwin, (2013) explains the connection between financial debt and earning management and describe it has positive relationship. Jensen (1986) claims the leverage is an effective use for managers which help them to continue their operational activities, those companies which have the higher the level of external debt, they are lesser involve earnings management action on the real activity. Research by (Nantyah, 2019) also supports this. (Ujah & Brusa, 2014) test in his research the impact of cash flow volatility, external debt on accrual based earning activities.

Literature also discuss on that company executive who are empowered to make decision may they change income in respect to present a growing cash flows of company and high leverage level are more motivated in manipulate earning activities due to avoid to show loss in financials (Waweru & Riro, 2013). (Watts & Zimmerman, 1986) named it as “debt hypothesis” which become the cause of motivations for manager to do alteration in earnings of company in respect to hide debt covenant violations as breaking promise repayment of loans can be costly. Moreover, (Ronen & Yaari, 2008) argued on, in line with debt covenants, financial number can also be change due to pressure of contract terms with creditors. (DeAngelo et al., 1994) also pass supportive comments on when possibility of unavoidable default rises, managers are interested in to manage earnings low to get more benefits on the time of debt contract renewal. (B. H. Kim, Lisic, & Pevzner, 2010) extend the same that firms change earnings management to walk off from loan breaking contract and the chances of earnings management is show high when the firms’ bankruptcy risks is high compared with last year. Research of (Yongtae Kim, Li, Pan, & Zuo, 2013) end his analysis with evidence in both situation upward and downward managers manage earning before or between debt contract where the possibility of debt violation occurs.

The significance test level of the debt/equity ratio and the existence and tightness of many actual debt covenant limits for a different sample of firms has been

investigated by (DeFond & Jiambalvo, 1994) they have found that the debt/equity ratio relies the existence and critical of three most repeated reasons of debt covenant restrictions like (related to retained earnings, working capital, and net tangible assets) but somewhere is unrelated to big four restrictions (related to total assets, current ratio, debt ratio, and debt divided by net assets). (Becker et al., 1998) argued that, companies with accounting expectation in their debt agreements, leverage is correlated with proximity to the actual leverage constraint in debt covenants.

Few studies examine and differentiate in two categories as low leverage level firm and highly leverage level firms and observed opposites outcomes between two companies. While low debt has a trend of downward earnings management practice, high debt level firm have upward association with earnings management behavior due to minimize contracts violations. (Lazzem & Jilani, 2018) also agree and expand this hypothesis by their study analysis that highly indebted firms alter their earnings to meet stakeholders' expectations in respect of their investment return, this type motivations observed significantly high for those organizations who undergo increasing leverage.

Quoted that, earnings of any organization independently and identically divided, so the debt level in firm remains same in each year Scott (1976). (Barnea, Talmor, & Haugen, 1987) the leverage to threat relationship is linked with the economy-wide pricing variables while the result of the study provide evidence that optimal leverage normally have a downward behavior with business risk. (Raymar, 1991) found that the external debt value increases with the ratio of current earnings to firm value. (John & Senbet, 1998) argued diminished future debt usage implies smaller terminal firm value.

They have found in his study that source of finance from outside induce cost of capital, at last it will decrease company financial worth and its share value (Miller, 1977). But Trade off theory of capital structure defines companies are using external source of finance can enjoy benefit of loan to enjoy significant multiplier, because firms which have high debt from outside investor than by law they have to pay less income tax but the factor of financial risk will go upside in that firms, firm

have opportunity to avoid this risk by generating excessive profits which will make company able to payback shareholders debt than this situation will be favorable. Actually external source of debt is favorable for firms because of investor pressure on generating future positive cash flow because management knows fixed cost on debt normally it always set at time of contract which can help proficient planning because management already know with its liabilities and can make schedule of repayment. (Mandelker and Rhee, 1984) studied the interest rate, he disclosed through wide view if the rate of return on investment is low against finance facility avail than management of organization may go for debt contracts.

Agency theory states, that firm capital structure based on high proportion of debt and equity is lesser will have a greater external monitoring cost by (Jensen, 1976). This monitoring cost paid because of the shareholder's interest in the company to overlook manager's decision in managing the funds and facilities provided by the lenders to fulfill the company operational need. Companies that using high leverage have more liable to fulfill the needs of adequate information for owners, shareholders and creditors. Some studies discussed agency relationship as inside leader of company have information asymmetry compare with external group of the company, such as institutional creditors and other investors, where inside managers have more information have control on companies operation and can access all information faster than external concerns, so that situation motivate authorities who know more information, they take benefit of information that is not known to the principal to maximize their personal interests.

Most of the time and in common practice managers of organization manipulate this information to maximize its interests regarding job security and incentive. Research by (Jao & Pagalung, 2011) expressed that the higher the leverage value, the more a company uses debt to finance company assets rather than shareholder equity. The bigger the company's debt, the greater the risk faced by investors, so that investors will ask for a higher level of profit. Therefore, companies with a high level of leverage tend to perform income smoothing actions.

Financial distress occurs prior to bankruptcy, a condition in which the results of the operation of a company operation are insufficient to meet its insolvency.

Insolvency can be divided into two categories namely: 1) Technical Insolvency, as in this category, insolvency is temporary and occurs because the company is unable to fulfill its short-term obligations; 2) Bankruptcy Insolvency, as in this category, insolvency is more serious and arises when the total debt is greater than the total value of the company's assets or the equity of the company is negative. (Koch, 2002) states that earning management behavior increase as the financial distress of the company increase.

In order to limit the formation of excessive leverage. Leverage is the use of a fixed source of funds with an expectation that it will provide an additional profit greater than the fixed expense, so as to increase the available profit to the shareholders (Khaldun & Muda, 2014). Leverage is calculated through the comparison between total debt and total assets of a company where the company is called as leverage ratio in the financial statement. Leverage is the use of fixed costs in an attempt to increase profitability (Rihab & Lotfi, 2016). When a lever is used appropriately, the pressure applied to a point will be formed or magnified into pressures or movements at other points. The greater the level of leverage, the higher the level of uncertainty of returns, but on the other hand, the greater the amount of return given (Kaslow et al., 2007).

Leverage is the use of assets and sources of funds by companies that are useful to increase the potential profits of shareholders (Firmansyah & Herawaty, 2019). Leverage is the amount of debt taken in order to finance the resources needed to obtain the required assets (Ahmadi, Mazooji, Roozbeh, Mazloom, & Hasanzade, 2013). Companies with high DER levels show the composition of the total debt is greater than the total own capital so that the impact on the increasing burden on the outside of the company. Companies with high leverage will profit more channeled to creditors to repay debts. Information on earnings announcements was reacted quickly by creditors, but responded negatively by shareholders because investors assumed that companies preferred debt payments rather than dividend payments.

Return on Asset (ROA) can use as a tool to measure how far the success of a company. It is a result obtained from an investment. ROA can be divided

into two, namely actual gain and expect gain. Actual gain is about the gain on investment that incurred which is measure with comparison of last year value. The actual return calculation is necessary to measure the firm financial performance for the year and as a point for deciding next year returns and risks. Expected gain is the expected return in the future and is still uncertain. In carrying out an investigation, investors are faced with the uncertainty between the return they will get and the risks they will face. The greater the return that is expected to be obtained from the investigation, the greater the risk, so it is said that the expected return has a positive relationship with risk.

According to Sarton (2010) the growth of firm shows its efficiency to increase the size of the firm. Basically the firm growth is linked with different factors, some are external, and some are internal based and the industrial climate also have influenced on firm's growth. Basically firm's growth reflects the productivity of the company and is an expectation desired by the internal (management) and external parties (investors and creditors) of the company. It also shows the company's strength to stable its economic value and growth in it and business sector as well. (Kasmir & Carbonella, 2008) revealed that total asset growth is one determinant of the amount of corporate debt. Companies that have fast growth often have to increase their fixed assets which causes companies to need more funds in the future. and also more retain earnings. In (Kashmir and Carbonella 2008) stated company growth can be seen based on asset growth and sales growth. The measurement of growth rate (company growth) in this study is measured using growth indicators of assets (asset growth) and sales growth (sales growth) Growth of assets (assets growth) describes an increase or decrease in assets each year, while sales growth (sales growth) describes the increase or decrease in sales every year.

The internal and external group always lookup company's growth due to investment security and return on their investment, growth in company asset has positive effect on investors. Extensive research shared investor's behavior and way of thinking, the firm growth is the main a point which attract investor from their investment to produce better results growing firms always has profitable aspect, and investors expect the better return on investment. The size of the company's

growth provides an overview of the development of sales and or company assets. In addition, the rate of sales growth can also affect the profitability of the company, where the higher net sales made by the company can encourage the higher gross profit that can be obtained, so that it can encourage higher profitability of the company.

Pangastuti & Masitoh, (2018) profitability, through assets owned so that it affects the productivity and efficiency of the company which ultimately affects profitability. Findings of (Astakoni, Swaputra, Harwathy, & Ratini, 2019) that company growth has a significant positive effect on profitability. The findings of (Yanto, Kardinal, & Megawati) asset growth have a negative effect that is not significant for profitability.

The trade-off theory explained the firm size and its capital structure have a positive relationship, due to equal diversification, free and stable CF, and less chances of financial issues. (Appuhami, 2008) studied that firm size has reflection on both sides value assets controlled and run by the firm and also reflect the company value. The larger firm have growth in their project which shows increase in company wealth, in this situation investors show interest to buy company stock when firm have huge amount of investment definitely the firm value will increase.

Most of the time the firm size analyzes by change in company assets, change in sales volume, comparison of average sales, and average total assets. Literature has many research have been done to define relationship between firm size, capital structure and firm value. (Manoppo & Arie, 2016) stated that firm size has a positive effect on firm value. (Hirdinis, 2019) prove that firm size has no effect on firm value.

Few studies explained the size of firms is important for investment opportunities and loan purpose because the big firm linked with secure investment risk, it can show impact on firm debt policy by (Lestari & Armayah, 2016). The larger firms always have a need of huge financial support to run the firm operations. The firms which have growth in their assets will use available resources up to most possible limits to multiply their net profits and same like this smaller firm also go for as

much they have available resources. Commonly the firm size is measured with natural log of total assets.

Literature added on the size of a large and growing firm can illustrate the level of future profitability, this ease of financing can affect the value of the firm and become good information for investors (Lestari & Armayah, 2016). As discussed above the size of a firm commonly noted by total assets a firm own or total net sales. (Supriadi, 2019) says the firm size is normally relate the value assets held by the firms. The higher side of asset held by any firm sign as the huge capital invested, while the greater change in sales shows liquidity of wealth in the firm.

### **2.3 Empirical Evidences Opposing Leverage and Earning Management Relation**

Literature have mixed result, it also proves negative relationship between financial leverage and financial reporting, due to any conclusive result literature also provide contrary studies which proves contrary result. (Iturriaga & Hoffmann, 2005) observed in their study that negative link between debt and accrual earning management practically that managers of firm that have high leveraged are less motivated to manage their earning because investors always highly concerned in finance services rather than others. Many of the prior studies have mentioned that leverage decrease the role of earnings management like (Nantyah, 2019). They explain that availing debt facility reduces opportunities for earnings management, because the use of external leverage creates situation of repayment to lenders, repayment causes managers to pay value of interest and principal costs incurred for the use of leverage lend by investors. This results in the company being monitored by creditors and creditors will provide a limit to managers for funding decisions that are not optimal or low return (Jensen, 1986).

They extended literature through their findings about earning management in Pakistan, with their analysis regarding impact of leverage on earning management (Haider, Ali, & Sadiq, 2012),(Naz, Bhatti, Ghafoor, & Husein, 2011), (Tabassum,

Kaleem, & Nazir, 2014). (McConnell & Servaes, 1995), (Lang, Ofek, & Stulz, 1996) and (Aivazian, Ge, & Qiu, 2005) found that financial leverage have an insignificant relationship with firm's future investment, which relates that the firms with higher external debt often have lower future investments.

That it may be good for investors to strict their evaluation in the context of debt provider, as this will create block for managers' opportunities to make change in firm earnings (Rodríguez-Pérez & Van Hemmen, 2010). (Ahn & Choi, 2009), mention institutional monitoring as an effective part in governance control of bank-dependent firms, which help to minimize the level of discretionary accruals.

That companies which have higher level of debt ratio subject to critical audit of both lenders and investors, restricting manager's discretions opportunistic behavior argue by (Jensen, 1986). The other point is, it will be pleasure to contract base interest commitment and payback schedule of loan, financial distressed firms have less free cash flow available, minimizing manager opportunistic behavior in sub-optimal projects and decreasing earnings management practice. Institutional monitoring or audited by big firm as an effective way in good governance control of dependent firms, which engage into manage discretionary accruals. The most efficient for loan providers to show their more interest and strict monitoring in the way of higher debt facilitators, as this to balance the managers' opportunistic attitude to involve in financial reporting activities. The firms with leverage increases create less discretionary accruals to artificially inflate earnings.

## **2.4 Empirical Evidences Supporting Corporate Governance and Earning Management Relation**

The frame of governance control system is little bit complicated to understand by the fact that the board composition, its impact and role of firm leader on firm performance, which have been investigated by many authors in different time

from multiple observations, in result they have develop different theories regarding corporate governance. Few studies from the law disciplines (Richards, 1999) from economics tale (Artiach, Lee, Nelson, & Walker, 2010), from finance fee (Fee, Hadlock, & Pierce, 2013), from sociology (Useem, 1984) strategic management (Boyd, 1995),(J. R. Anderson et al., 2004) and organization theory (Masulis, Pham, & Zein, 2011)have explained and extend corporate governance literature. In light of these studies, literature have number of governance control theory, like agency, stewardship, resource dependence, institutional and stakeholder theory, to name but agency and steward theory considered more practical and theoretical perspectives. A collective mean of all theories of governance control mechanism has been to test and investigate link between various characteristics of the board composition and its impact on firm performance.

Agency theory is defining as commonly relate to reduce problem in line with owners or business partners and their agents. Mostly, this term is namely one between investor, as principals, and firm management, as agents. The key point of agency theory is to reduce conflict over priorities between finance provider and its user. Business manager expect from agents to make certain business transactions and provide finance, resulting in a difference in agreement on priorities and methods. where difference in interest occur and priorities get change between lenders and manager is commonly called as the principal-agent problem. Common principal-agent relationships included in agency theory include shareholders and management, financial planners and their clients, and lessees and lessors.

A stewardship theory is defined as directors in board who secure the right of others and work for needs of their subordinates. Under the stewardship theory, do their best in favor of company executives, also secure the interests of the company shareholders and make better decisions on behalf of them. The company steward work on one purpose is to generate and attain a successful company so the shareholders expect. Those firms who appreciate stewardship place the chief executive and Chairman responsibilities under one executive, with a board composition is mostly of inside directors. This attitude creates for quick knowledge of organizational operation and a more commitment to success.

The organization external resources affect the inside behavior of the organization is known as Resource dependence theory (RDT). The main tenet of the strategic and tactical management the company is a procurement of external resources. With the publication of *The External Control of Organizations: A Resource Dependence Perspective* (Pfeffer & Gerald, 1978), consequences of this importance was not formalized until the 1970s. This theory has practical implications in kind of optimal divisional structure of organizations, induction of board members and hiring employees, contract nature, organizational links with outsider, production plan, and many other objective of organizational strategy.

One of the prominent theory in organizational research is known as institutional theory. This theory covered large and different points of theories and common work practices related to normal work routine and firm internal cultural and shared expectations. Institutional theory is commonly defining as to understand the organizational structures and spread of formal adoption, like written laws, work attitude, and values of firm.

Stakeholder theory is linked with corporate governance. This theory defines the impact of different activities within organization on stakeholders of the firm. Commonly this theory used to explain that directorship of an organization (officers and directors) must be under consideration and their interests in governance process. Stakeholder holder theory help to minimize or kill conflict between stakeholder interests. Stakeholder theory explain deeply that the formal members of the organization (officers, directors, and shareholders) and also have consideration on the interests of any third party that has some level of dependence upon the organization. These are normally known as insider and outsider company's stakeholders.

These theories have been develop with multiple objective in different economic conditions and therefore various practical implication criteria and also have different outcomes (Preston & Donaldson, 1999). Previous studies have support that the agency and stewardship theories have a symbolic position, about to their impact on company profile and the success in achieving targeted goals. Stakeholder theory is linked with the stakeholders of an organization. Resource dependency theory is linked with the complete role of the board of directors.

Rather discussing theoretical perspective, we discussed that agency and stewardship theory represents a continuation of other theories. We agreed with the result of (Daily et al., 2003) they called and analyzed collective theoretic approach to corporate governance is helpful for identifying the different operating procedure and board structures that probably enhance organizational operational functioning and place to appoint the stakeholder and resource dependency theories along the agency-stewardship continuum. (Eisenhardt, 1989) called Agency theory has been a dominant approach in field of economics and finance. (Adams et al., 2010), (Luan & Tang, 2007) shared on Agency theory is linked with aligning the interests of shareholders and management and is based on the premise that there is an inherent conflict between the interests of a firm's executive and its managers. (Roche, 2005) studied the easy and practical view for governance control mechanism from an agency theory is that effective control or adequate monitoring mechanisms must be develop to secure shareholders right from management personal objectives. (Bosch, 1995; OECD, 2004; Code of Corporate Governance Pakistan, 2012) added on Agency theory define as to clear recommendation that boards structure should have a major number of its members from outside as non-executive directors and, ideally, independent directors and that the position of chairman.

Corporate governance (CG) is divided into internal and external governance mechanisms, and the ownership structure is considered a vital element of internal CG. Family ownership as the most prevailing form of ownership in both developing and developed countries is chosen as an important determinant of the earning management. Family businesses could be affected by more agency problems between the principal controller and minority stockholders (PP), (La Porta, Lopez-de-Silanes, Shleifer, & Vishny, 1997) posited that conflict of interests between majority and minority stockholders exist and according to the entrenchment hypothesis, family ownership might make private gain from the firm at the expenditure of various other shareholders.

With comparison, the other dominant and discussed stewardship theory, define by University of Newcastle (Villalonga & Amit, 2006) that define company managers

are important individuals who consider most trustworthy and therefore most influence leaders of the company asset. Stewardship theory claims that upward or increasing firm value will be possible when majority of board member based on directors other than non-executive as they are working on to increase shareholders' worth. Stewardship theory claims it will happen because directors other than non-executive can understand the business nature due to more internal information they can run better than non-executive directors and so they can easily make effective decision for firm performance (Maury, 2006) support this argument.

The existing studies reveal that both agency and stewardship theory have important relationship between the board composition of non-executive directors and firm economic performance. (Sun, Wang, Wang, & Zhang, 2013) claim collective analysis there is a large gap of continuous evidence of any significant relationship between the board structure number of directors insider or outsider and organizational growth. The practically this must be applied to offer two counter theoretical interpretations depending upon whether the study was based on resource dependence theory suggested by (Maury, 2006). (Lin, Hutchinson, & Percy, 2009) monitoring (Srinidhi, Gul, & Tsui, 2011) and strategizing (Villalonga & Amit, 2006) claims As with two opposite opinion like agency and stewardship theories, by capturing only on relationship with non-executive directors only, resource dependence theory reject alternative activities of the board such as providing advice.

The executive officer can influence and in Corporate Governance provisions in a group to maximize its wealth. (Rouf, 2011) suggest shareholders can put their huge capital in the firm stock get higher or powerful position in Corporate Governance provisions than firms will create profit for them says (Defond & Hung, 2004). (Clarke, 2004) discussed the manager are controlled by investor made rules, with the objective of increase investor wealth. This view known as more individualistic and is applicable in this theory. The frame of an employee based in the agency theory is more liked personal interest, more individualistic and are limited rationality where punishments and rewards seem to take priority. (Daily et al., 2003) resulted that in respect to protect their personal value as individual decision taker of company, executives and directors are inclined to run the company

to increase financial performance as well as return on investment.

The stewardship perspective claims that stewards are relaxed and satisfied where firms targeted goals are achieved. It creates troubles on the work of employees or executives to act more wisely so that the shareholders' returns are increased. Indeed, (Daily et al., 2003) found this can reduce the costs purpose at controlling and monitoring behaviors of team. (Mak & Li, 2001) continue the findings of previous literature that board composition endogenously determined the finding of their study suggest that board structure, ownership mode and firm size have a significant positive impact on firm value. (Adams & Mehran, 2005) also agreed with findings of (Mak & Li, 2001) they says larger board size have positive impact on firm financial worth. Dalton and Dalton (2005) have also support that big boards are related positive with higher firm financial growth. (Cheung, Connelly, & Limpaphayom) also observed a positive link between board composition (the percentage of independent directors on the board) and firm performance. (Jensen, 1976) argued that when an individual is a part of board and have two top powerful positions in the board there is a clear picture on the way of such person to gain some personal benefits or will adopt strategies that could be effect to the firm position overall. (Mallette & Fowler, 1992) shared the same thought and argued that in the multi roles, the executive member of the board make important economic decisions which creates conflict of personal interest.

Four types of ownership structure are relevant in determining the earnings management attitude of a company. These are managerial ownership, institutional ownership, ownership concentrated in the hands of few individuals/entities and dispersed ownership. As (Jensen, 1976) noted, managers are better motivated to protect the interest of a firm when they have an ownership stake in it. However, they can also become overly powerful where such ownership stake is substantial. Thus, with reasonable stake, managerial ownership can prevent earnings management activities that have potential to harm the company.

Institutional owners on the average are better informed and better motivated to monitor the activities of a company. (Koh, 2003) asserted institutional ownership is linked to effective control of manager opportunistic behavior, its help to minimize

manager ability to alter earnings for personal uses. This is because as stated by (Almazan, Hartzell, & Starks, 2005) also extend on this type of ownership creates effective system of monitoring which is hard for smaller group, more passive or less-informed investors.

The prominent concentrated shareholders have an influential role to monitor effectively and control management activities to secure their valuable investments by (Shleifer & Vishny, 1986). Presence of shareholder's ownership helps to minimize agency costs by effective monitoring and alleviating the free-ride problem. However, this may not always be the case as a result of conflict of interest. Thus, large shareholder is also an executive, such a shareholder may collude in earnings management if substantial benefit may accrue from such an action.

## 2.5 Empirical Evidences Opposing Corporate Governance and Earning Management Relation

**Board Size:** As per extensive research on board of organization the analyses of empirical research highlight the impact of multi dimension on vast corporate performance measures have discovered mixed results between personal interest and firm performance. The study of (Ahmadu, Aminu, & Tukur, 2005) have resulted insignificant relationship of CEO duality and companies financial growth. (Carpeto, Lasfer, & Machera, 2005) also evidence non-supportive difference in the financial performance of firm with or without role of executive duality. (Williamson, 1981) also discussed that board independence limited managers personal interest diminish use of power board size is out of context. Similarly, (Beasley, 1996) suggest that presence of external non-executive on the board will lead to reduce in the chances of management opportunistic behavior instead or larger or smaller board. The frequent debate over the years on larger or smaller boards size and its impact on organization output is continued, literature gives inconclusive empirical results. (Jensen, 1993) discussed the characteristics of few board members, his study reveals the boards of small numbers of directors are more effective and benefited in

decision-making because it's easy to communicate and in investigation of financial firm performance. (Haniffa & Hudaib, 2006) analyzed and support that small board members can easily communicate and for the chief executive company it's easy to control smaller board but (Dahya & McConnell, 2007), (Wintoki, Linck, & Netter, 2012) and (Delis, Gaganis, Hasan, & Pasiouras, 2017) have inverse opinion they claim no relationship between board size and company growth.

That as larger board increases beyond a specific limit than it has negative impact on firm performance and also creates problem among the board members argued by (Lipton & Lorsch, 1992) and (Jensen, 1993). (Gandía, 2008) argued that role of the board in reducing management opportunistic behavior such that firms with large boards are faced problem to hold companies confidential information. (Lipton & Lorsch, 1992), (Jensen, 1993) these studies argue that extensive boards of directors have good monitoring and effective controlling abilities because of difference in opinion, their expertise and vast knowledge; but the disadvantage is they have problem poor communication and long discussion process in decision making which effect firm performance. (Ezat & El-Masry, 2008), (Desoky & Mousa, 2009), (Samaha, Dahawy, Hussainey, & Stapleton, 2012) and (Bin-Ghanem & Ariff, 2016) these numerous studies have evidenced the significant positive relationship between board members and firm stock value in contrast (Cormier, Houle, & Ledoux, 2013) discovered the opposite and statistically insignificant link between board size and firm value.

The study on UK firm and argued same on this concept that high her percentage in company board of outside directors in the UK can perform better avoid income-increasing discretionary accruals to change financial results done by (Peasnell, Pope, & Young, 2005). Likewise, (Klein, 2002) extend literature on this view by giving result that an insignificant relationship between board independence and earnings management exists in the firm of US. Correspondingly, (Xie et al., 2003) find a negative relationship between board independence and the extent of earnings management.

There are several studies which conclude that an effective firm performance was due to the good corporate governance practice. Several studies have been done

with same output that a firm financial performance and board structure have negative relationship (Bathala & Rao, 1995). (Ghosh, Marra, & Moon, 2010) argued that earnings manipulation does not get change due board composition or structure, or with audit committee knowledge, expertise, and ownership because larger firm have liable to be audited by big audit firms. (Gulzar, 2011) claim that large board become reason of delay in decision making process and hard to communicate with all which will be reason for less effective work of the board. (Dwivedi & Jain, 2005) shows board of directors are supposed to be huge decision-making groups, board size may affect the decision-making process and work efficiency of the board. (Lipton & Lorsch, 1992) argued with his analytical analysis that an effective board size should be between eight or nine members in board, whereas Jensen (1993) (Jensen, 1993) indicated that a board size of seven or eight is optimal.

**Board Composition:** The larger or smaller board size still have inconclusive result, same like this the board structure and control mechanism is also inconclusive. The board composition relates to board ownership or about role duality, which exists when a CEO also serves as the chairman of the board (COB). The current studies have found evidence of the role and effect of chief executive officer duality on firm financial performance has discovered conflicting results. (Belkhir, 2009), (Dahya & McConnell, 2007) and (Wintoki et al., 2012) these empirical studies investigated no relationship between the duality of chief executive officer and firm stock value.

Few studies shows an insignificant relationship between board structure and firm financial performance (Thangatorai, Jaffar, & Shukor, 2013) and (Kamalluarifin, 2016). (Cormier, Ledoux, Magnan, & Aerts, 2010) also unable to find a positive significant relationship between firm value and use of power. Owing to the mixed nature of empirical evidence the study purports hypothesis in non-directional form.

Some researchers investigated aspects of corporate governance mechanisms and earnings management in Nigeria with reference to the oil and gas and ICT sectors of the economy (AL-Duais, Malek, & Hamid, 2019). The study adopted a correlational study design and collected secondary data from published annual statements of 5 companies from each of the two sectors for the period 2013 to 2017. Board

composition had a negative and insignificant association with cash-based earnings management.

The impact of governance mechanism variables on earnings management investigated by (Abata & Migiro, 2016). They studied listed firms from the sector of manufacturing and banking. They limited their studied for 24 firms and period range from 2008 to 2013. Employing the panel regression analyses, it was shown that powerful board member, independent audit committee and size of committee are insignificantly positively correlated with earnings management. Board size is insignificantly negatively correlated with earnings management

**Family Ownership:** Researchers talk about with practical examples from his study the relationship between family ownership and firm performance is still need to be research because it is not conclusive, agency theorist state that family firms need not incur significant agency cost between family members on the board and voluntary disclosures (Abata & Migiro, 2016). Family owners are always make interference in management decision and wish to show their unity and stable wealth. They lack transparency to assist family members on the board function without any interference (R. C. Anderson, Mansi, & Reeb, 2003) The (Braun & Sharma, 2007) argued opposite that no impact behind the influence of chief officer duality on firm wealth in family controlled but publicly traded companies.

Some study says that if the shareholder interest raised to such a level that it probably take control on management of the firms and prevents takeovers, then company financial performance will be on lower side (Fama & Jensen, 1983). (Demsetz & Villalonga, 2001) empirical evidence indicates that the interest of ownership raise, then down the company performance in the united states of America. (Lefort & Urzúa, 2008) argued on that company financial performance have opposite relation to company executive concentration. (Belkhir, 2009), (Ducassy & Montandrau, 2015) also showed an opposite effect of block-holders' ownership on company financial performance. (Pong et al., 2007), (Jaskiewicz, Combs, Shanine, & Kacmar, 2017), also test the family ownership might have inverse effect on firm performance.

Some Asian perspective companies are familiar by family ownership and sharing members on the board of directors; it is commonly observed that the management

entrenchment hypothesis should prevail. The inverse connection between inside family ownership and agency conflict, however, this relationship can be moderated by external control of regulatory authorities. (Warfield, Wild, & Wild, 1995) argued that manager level ownership may become ineffective to minimize agency conflict when a firm is closely controlled and monitoring by the auditors. This is because the agency conflict between the owners and investors is already minimized when the regulatory authorities take hold and play its role in controlling the management in achieving the objective of the shareholders.

The effect of governance control system and ownership structure on earnings management analyzed (Kamran & Shah, 2014). They collected data of three hundred and seventy two listed firms in Pakistan . They have range up their time span from 2003 to 2010. They have gather data from the available resources and publicly published annual report. They have used Jones (1991) model for calculating discretionary accruals. The study outcome shows that discretionary accruals increase monotonically with the ownership percentage of a firm's directors, their spouses, children, and other family members. also supports this hypothesis that managers who are working with family owned have influence on management decisions and alteration in accounting data that may fulfill their personal goals. The finding of the study further revealed that institutional investors can have more effective role in reducing earnings manipulation activities. However, CEO duality, the size of the auditing firm, the number of members on the board of directors, and ownership concentration do not influence discretionary accruals.

# Chapter 3

## Research Methodology

This chapter is based on five sections. Section one explains the regression equation or the model of this study. Section two of this chapter gives details of the population of the study, selection of the sample from population and data sources as well. Section three highlights construction of the variables. Section four discusses the construction of independent variables leverage and corporate governance. The last section of this chapter explains the measurement of control variables of the study.

### 3.1 Model

Based on the previous studies, the following model has been selected to test our hypothesis. For its estimation:

EM = f (LEV, CG (BC, BS), RAO, SG, FS)

This model has been written in regression equation form as given below.

$$EM_{i,t} = \beta_0 + \beta_1 LEV_{i,t} + \beta_2 BS_{i,t} + \beta_3 BC_{i,t} + \beta_4 SG_{i,t} + \beta_5 FS_{i,t} + \beta_6 ROA_{i,t} + \varepsilon_{i,t} \quad (3.1)$$

EM stands for Earning Management.

Lev stand for Leverage

BS stand for Board Size

BC stand for Board Composition

SG stands for Sales Growth

FS stand for Firm Size

ROA stand for Return on Asset

I indicate firm. It varies from 1 to 64.

t indicates the year. It varies from 1 to 10.

e denotes the error term with standard features.

$\beta_o$  constant coefficient

$\beta_1$  to  $\beta_6$  are the coefficient of independent variables

The same model can be defined graphically as given in Figure 1.

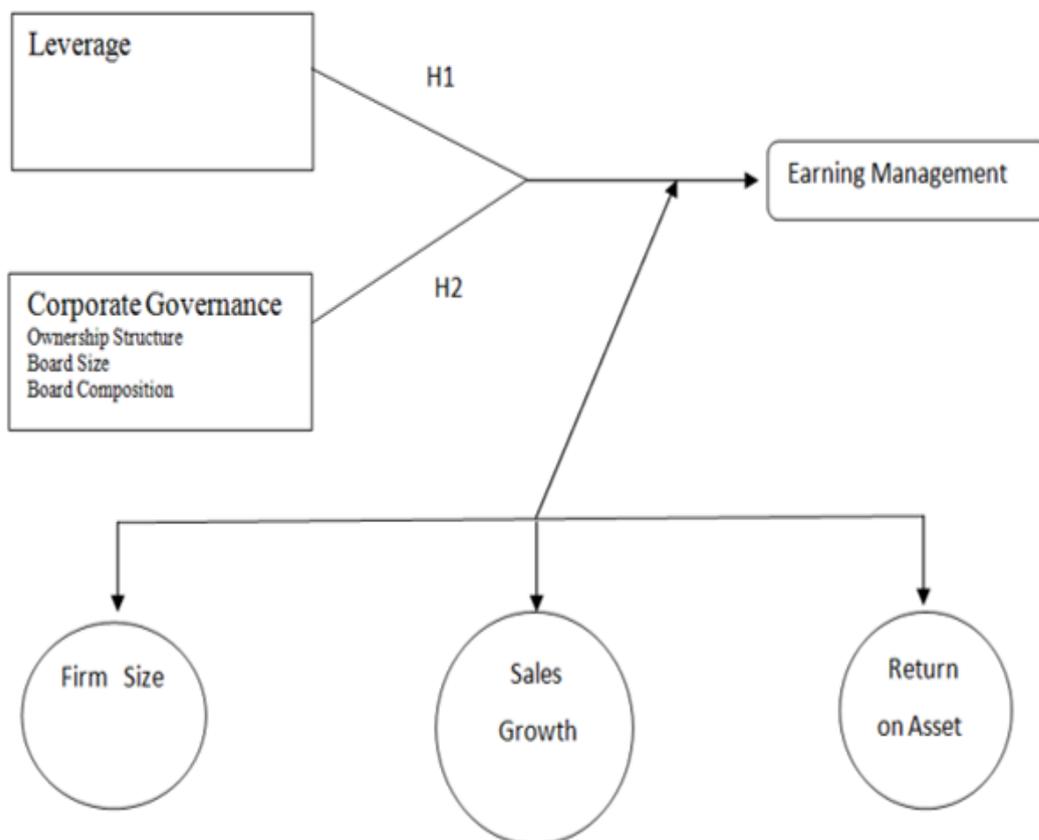


FIGURE 3.1: Research Model

## 3.2 Population, Sample & Data Source

Currently 540 firms are listed with Pakistan stock exchange. These 540 are the sum of all financials and non-financial firms. Financial and Non-Financial firms have different accounting techniques and different capital structure. This research limited up to 64 manufacturing firms listed with Pakistan Stock Exchange out of 540. Because of accounting techniques and capital structure we pick only 64 firms out of 540.

In past studies researchers collect financial information of non-financial firms more than 100 companies, but their time frame was only for five or seven years. This study expands time frame from seven years to ten years and limit population from 100 to 64 non-financial firms. This study balanced the population of four manufacturing sectors almost 16 firm from each sectors. For financial information of these companies all available sources have approach, like company's websites, from data base of state bank of Pakistan and Karachi stock exchange.

The main source we download the company annual report from Pakistan Stock Exchange data base. This Study Measure earning management using Accrual Earning Management techniques. Modified Jones Model (Dechow et al. 1995) was used to discretionary accruals.

## 3.3 Construction of Variables

### 3.3.1 Dependent Variable

The previous studies of measuring earning management have used Accrual Earning Management technique. Modified Jones Model (Dechow et al., 1995) have adopt for measuring discretionary accruals.

$$EM = DACC = TACC - NDACC \quad (3.2)$$

The measurement of accrual value other than discretionary, specific value of company for each independent variable are employed for each period industry wise,

since each variable ( $TAC/A_{it-1}$ ,  $Revit - \Delta AR_{it}$ ,  $PPE_{it}/A_{it-1}$ ) is calculated from the same company, with each dataset from a different time period. Once  $\beta_1 j$ ,  $\beta_2 j$ ,  $\beta_3 j$  have been produced for the cross-section of an organization for the period started with 2009 to 2018 through the regression equation (Eq) these betas are used in eq (1) to measure the non-discretionary accrual which are part of the company. Discretionary Accruals (DAC) are then measured by measuring the subtraction of Non- Discretionary Accruals (NDACC) from Total Accruals (TACC) which is the proxy of Accrual Earning Management. The Modified Jones Model for measuring the non-discretionary part of accruals is as follows:

$$NDACC/A_{it-1} = \beta_{1j}(1/A_{i,t-1}) + \beta_{2j}(\Delta REV/A_{i,t-1} - \Delta REC_{i,t})/TA_{i,t-1} + \beta_{3j}(PPE_{i,t}/A_{i,t-1}) \quad (3.3)$$

where

NDACC stand for Non-discretionary accruals

$A_{t-1}$  = means Total assets for the current period t-1

$\Delta REV$  = change in sales revenue from last year sales revenue

$\Delta REC$  = account receivables change from the last year

TA = Total value of assets for the year

PPE = Property plant and equipment

In order to use the specific parameters of firm in the above equation, the following equation was used in regression.

$$TACC_{i,t}/A_{it-1} = \beta_{1j}(1/A_{i,t-1}) + \beta_{2j}(\Delta REV/A_{i,t-1} - \Delta REC_{i,t})/TA_{i,t-1} + \beta_{3j}(PPE_{i,t}/A_{i,t-1}) + \varepsilon \quad (3.4)$$

where in

$\Delta AR_{it}$  is change in accounts receivables

Total accruals (TACC) can be calculated through balance sheet approach, that is:

$$TACC = (\Delta CA \ \Delta CASH \ \Delta CL + \Delta STDEBT - DEPN) \quad (3.5)$$

where;

TACC total accruals

$\Delta CA$  delta of current assets

$\Delta CL$  delta of current liabilities

$\Delta CASH$  delta of cash in hand

$\Delta STDEBT$  change in short term debt

DEPN depreciation

All variables in the regression model are standardized by total assets (t-1) to remove the problem of the size effect of firm. Kim and Sohn, (2012) analyzed this argument as accrual based activities is carried out when fiscal period is close to end then manager knows the profit before it is engineered, so the manager can know how much manipulation is needed to achieve the targeted profit. Scott (2000), Burgstahler et al (1997) and Balsam, Bartov, et al (2002) also shared supportive result that is continuation with the increase in personal utility. All financial scandals around the world arises due to change in accounting data. Specially investor make decision on behalf of company earning. The main reason of earning manipulation is to attract and fulfill the contract terms with creditors. We expect same as vast literature disclose the managers have positive relationship with earning management.

### 3.3.2 Independent Variables

#### 3.3.2.1 Leverage

Leverage is the independent variable of this study. It denotes as the use of long term borrowing scaled by firm total asset. A firm using more external finance is

called as highly leveraged firms. It can be calculated through debt ratio which is mention below.

$$\text{Leverage} = \text{total debts}/\text{total assets} \quad (3.6)$$

Some researchers highlighted in their studies that leverage has a significant positive impact on earning management when companies involve in to show less the likelihood of breaking debt agreements and give priority to more the bargaining value of companies during debt dealing (DeFond & Jiambalvo, 1994) and (Chamberlain et al., 2014). The financial distress theory of (Fung & Goodwin, 2013) explains the connection between financial debt and earning management and describe it has positive relationship.

Study claims the leverage is an effective use for managers which help them to continue their operational activities, those companies which have the higher the level of external debt, they are lesser involve earnings management action on the real activity by (Jensen, 1986).

Alzoubi, (2018) examines and differentiate in two categories as low leverage level firm and highly leverage level firms and observed opposites outcomes between two companies. While low debt has a trend of downward earnings management practice, high debt level firm have upward association with earnings management behavior due to minimize contracts violations. Extensive literature discussed reason of manipulation in financial and gap for manager to amend their accounting figures. Leverage is one of the noted variable which have a significant positive relationship with earning management and in this study we expect the same sign for leverage.

### 3.3.2.2 Corporate Governance

The second independent variable of the study is corporate governance which includes three features of governance like board composition, family ownership and board size. The annual report of the company provides information of governance control mechanism. The available information breaks down each board member is

as inside director or outside director, also familiar with executive and non-executive director, the family directorship, the family ownership, board size, minority representation and gender diversity in board. For hypothesis test this distribution was heavily skewed and employed a natural log transformation to investigate.

### 3.3.2.3 Board Composition

The frequent debate over the years on larger or smaller boards size and its impact on organization output is continued, literature gives inconclusive empirical results. (Jensen, 1993) discussed the characteristics of few board members, his study reveals the boards of small numbers of directors are more effective and benefited in decision-making because it's easy to communicate and in investigation of financial firm performance. (Haniffa & Hudaib, 2006) analyzed and support that small board members can easily communicate and for the chief executive company it's easy to control smaller board but (Dahya & McConnell, 2007), (Wintoki et al., 2012) and (Delis et al., 2017) have inverse opinion they claim no relationship between board size and company growth. Board Size have inconclusive result; we expect board size have a positive relationship with earning management. Because larger board can influence the manager decision and larger board have number of people with their expertise they can manipulate company earnings.

BC=Percentage of non-executive directors on board

### 3.3.2.4 Family Ownership

According to Shleifer & Vishny (1986) prominent concentrated shareholders have an influential role to monitor effectively and control management activities to secure their valuable investments. Presence of shareholder's ownership helps to minimize agency costs by effective monitoring and alleviating the free-ride problem. Four types of ownership structure are relevant in determining the earnings management attitude of a company.

These are managerial ownership, institutional ownership, ownership concentrated in the hands of few individuals/entities and dispersed ownership. As (Jensen,

1976) noted, managers are better motivated to protect the interest of a firm when they have an ownership stake in it. However, they can also become overly powerful where such ownership stake is substantial. Thus, with reasonable stake, managerial ownership can prevent earnings management activities that have potential to harm the company. In light of vast research, we expect the family controlled firm have more influence on earning management.

FO = Percentage of family ownership in company.

This feature of corporate governance is dropped due to multi collinearity issue.

### **3.3.2.5 Board Size**

The current studies have found evidence of the role and effect of chief executive officer duality on firm financial performance has discovered conflicting results. (Belkhir, 2009), (Dahya & McConnell, 2007), (Kiel & Nicholson, 2003) and (Wintoki et al., 2012) these emperical studies investigated no relationship between the duality of chief executive officer and firm stock value. Current literature reveals that board composition has no relationship with earning management. We also expect in our study that board composition has no relationship with company earning.

BS=Total number of board members.

## **3.3.3 Control Variables**

### **3.3.3.1 Sales Growth**

The size of the company's growth provides an overview of the development of sales and or company assets. In addition, the rate of sales growth can also affect the profitability of the company, where the higher net sales made by the company can encourage the higher gross profit that can be obtained, so that it can encourage higher profitability of the company. Dan Leliani, (2013) profitability, through assets owned so that it affects the productivity and efficiency of the company

which ultimately affects profitability. Findings (Sufa & Riyadi, 2016) (UGWU & EZE) that company growth has a significant positive effect on profitability.

We expect in our study the result of the study will be the continuation of previous research.

SG = percentage change in sales

### **3.3.3.2 Firm Size**

Lee & Choi (2002) studied Company size in his study which reveals that the manager of small company can hide and control internal information easily which motivate them to modify in contrast the larger firms are liable to disclose information to public or shareholders in this environment they are less easy to change in financial data. Moradi, Salehi, Bighi, & Najari (2012) with reference of this study that control variables like firm size have significant positive relationship with accrual earning management. Similarly to the previous studies of that, big firm provide incentive for the manager to book more accruals.

Literature point out this positive link of firm size is because of, larger firms have to show growth in sales and firm earnings, larger firms are always under pressure from external reviewers sand finance provider. So, larger firm have concerned with accrual management. The second cause of this, can be that big firms have effective and powerful governance control which have the power to deal with auditors and investors and this may motivate them to do change in earnings. This study based on listed companies of Pakistan Stock Exchange from manufacturing sector. All firms are large size we expect that they have a positive relationship with earning management.

Firm Size = Natural log of total asset.

### **3.3.3.3 Return on Asset**

Return on asset is linked with firm's profitability which gives the growth for the year which calculate through change in firm assets for the year.

Positive change in asset creates opportunistic behavior for management which direct them to do change in firm earnings for firm specific needs. With reference to control variables, ROA is found to be significant and positively related to AEM, similarly to the previous studies of (Ardison et al., 2012). With current studies return on asset discussed as sign of firm better performance. Where firm have increase in their asset this kind of situation as favorable for investor point of view. This favorable firm situation creates opportunity for investment purposes. We expect that return on asset have a significant positive relationship with earning management. Return on Asset= Net Income/total Asset.

TABLE 3.1: Measurement of Variables

Variable	Abbreviation	Measurement	Expected Sign
Earning Management	EM	Emit = Lev + SG + S +ROA + CG + BS + BC + FO	
Leverage	LEV	Leverage = Total Debts ÷ Total Assets.	Positive
Board Size	BS	Total Number of Board Members	Positive
Board Composition	BC	Percentage of non-executive directors on board	Negative
Sales Growth	SG	Percentage change in sales	Positive
Firm Size.	FS	Natural log of total assets	Positive
Return on Asset	ROA	Net income ÷ total assets	Positive

### 3.4 Estimation Technique

Panel data is a collection of quantities obtained across multiple individuals, that are assembled over even intervals in time and ordered chronologically. In order to denote both individuals and time observations, panel data often refers to groups with the subscript  $i$  and time as the subscript  $t$ . where  $I$  observed for all individuals and  $T$  for time specific. Panel data is the most common and adopted technique for analysis in field of finance. The reason in that, it has more information, more flexibility, more efficiency than pure time series and cross sectional data. It helps to reduce the problem that might occur due to merger of different groups into single time series. Panel data are very useful in both situations for individual and common behavior of group. The panel data also effective for tracing and estimating the statistical effects which is pure time series and cross sectional data cannot.

Panel data set rely on both of time-series data and cross-sectional data. When panel data have same series of time observations for each cross-section of variable it known as balanced panel. When series of time observations differs among cross sections the panel is known as unbalanced panel (Gujarati & Porter, 2003). During other data analysis techniques, whose consisting on time-series and cross-section data.

In time series, one or more determinants were analyzed on one observation unit within a specific time period. In the duration of cross-section data is the observation of various units of observation in a single time period. In this study three different models were tested in panel data analysis.

#### 3.4.1 Three Models for Panel Data

Panel data describe the individual behavior both across time and across individuals. The three models of panel data listed below:

- 1) Common Effect Model:
- 2) Fixed Effect Model:

3) Random Effect Model:

**Common Effect Model:**

A panel data model approaches most simple because it combines only time series and cross section data. In the present research framework is not analyzed as time(t) and individual determinants, so it is assumed that the behavior of corporate data is the similar in numerous periods. In this tool use of Ordinary least square(OLS) tool or the least square techniques to measure the panel data model. The form of panel data regression equation is similar to ordinary least square,

$$Y_{i,t} = \alpha_o + \beta_i X_{i,t} + \varepsilon_{i,t} \quad (3.7)$$

Where:

Y representing the dependent variable

X representing the independent variables.

**Fixed Effect Model:**

The fixed effect model is differing from the common effect model, but still it uses the ordinary least square principal. Fixed effect model study the effect variables over the course of time. It is also recognized as first difference model. Fixed effect model examines that each variable may have any effect on other variable or not, or is there any relation between endogenous and exogenous variables. Every entity has its own features and characteristics so it's not necessary that every independent variable can influence dependent variable. For instances independent variables have influence on return on assets or not. In the study of single entity fixed effect, model is not varying over the time. In fixed effect model Even, a single entity should not be correlated with properties or else fixed effect model will not be appropriate. Fixed effect model describes that intercept is different for all cross sections. Fixed effect model determines that changes between individuals (cross section) can be accommodated from different intercept. General equation of random effect model.

$$Y_{i,t} = \alpha_o + \beta_i X_{i,t} + \varepsilon_{i,t} \quad (3.8)$$

Where:

Y representing the dependent variable

X representing the independent variables.

I indicate cross section

T stand for Time

### **Random Effect Model:**

In the results of random effect model intercept considered as error term and it does not with the cross sections (banks). This model explains the variation among the different banks. It offers following benefits.

- Random effect model has fewer parameters to estimate with comparison to fixed effect model.
- It provides the permission for additional independent variables with same number of observations.

The hausman test has applied on sampled data. This test recommend that random-effect model in not appropriate but fixed effect model is appropriate. These test has been carried out which indicates this dataset has hetro skedasticity and autocorrelation problem but multi-co linearity does not exist. To check the reliability of study and validity of statistical outcomes, this study has used panel data regression to adjust the standard errors of coefficients against possible dependence in the residuals. Robust standard errors are widely accepted and commonly relied on in case of any violation to get the valid statistical regression results. General equation of random effect model.

$$Y_{i,t} = \alpha_o + \beta_i(X)1_{i,t} + \beta_2(X)_{k,i,t} + (V + \mu_{i,t}) \quad (3.9)$$

## **3.4.2 Diagnostic Test**

### **3.4.2.1 Redundant Effect Test**

This test plays the role of decision maker between common effect analytical model and fixed effect model. If the F- stat and Chi-square of cross-section is less than

0.05 than fixed effect Model is used if P-value is insignificant than common coefficient model will apply.

Here,

Null hypothesis results show that: Common effect is more appropriate.

Alternate hypothesis results show that: Fixed effect is more appropriate.

#### **3.4.2.2 Hausman Test**

This test is used to choose between random effect model and fixed effect model. If the F stat. and Chi-square of cross-section is significant or less than 0.05 than fixed effect model is used. If p value is insignificant or higher than the range of 0.05 than random effect model is applied.

Here, Null hypothesis: Random effect is more appropriate

Alternate hypothesis: Fixed effect is more appropriate.

# Chapter 4

## Data Analysis and Discussion

The results of study start with descriptive statistics which reveals mean, minimum, maximum and standard deviation of the selected variables for the period from 2009 to 2018. We add data behavior to check the reliability of the data before applying other statistical test.

The table 1 of this chapter 1 based on descriptive statistics which reveals general behavior of the data, for all dependent variable, independent variable and control variables as well.

The summary of the table highlight mean (average value), minimum (the lowest value), maximum (the highest value) and standard deviation (measurement of dispersion). These are all for period of 2009 to 2018.

Than the analysis continued and followed by correlation test which assure that there is no multi collinearity in the data. The final table is the regression equation of the study which highlights the significant level of variables. To test the regression equation Views Software used. In this chapter the gathered data from different firms through financial statements has been used for analysis. Being the most crucial part of this research, it analyzes everything very critically.

### 4.1 Descriptive Statistics

TABLE 4.1: Descriptive Statistics

	<b>EM</b>	<b>LEV</b>	<b>BC</b>	<b>BS</b>	<b>SG</b>	<b>FS</b>	<b>ROA</b>
<b>Mean</b>	0.336929	0.326408	0.672733	7.776163	-0.02177	21.97451	0.034176
<b>Median</b>	0.133483	0.326709	0.714286	7.000000	0.026899	22.32485	0.029764
<b>Maximum</b>	3.811094	0.989844	0.875000	11.00000	0.966602	25.48996	0.199422
<b>Minimum</b>	-0.85762	0.000313	0.000000	6.000000	-1	12.80225	-0.17958
<b>Std. Dev.</b>	0.718451	0.177458	0.144904	0.922294	0.347404	1.899433	0.073857
<b>Skewness</b>	1.992905	0.282405	-2.19864	0.858877	-0.71767	-1.95256	-0.06283
<b>Kurtosis</b>	9.040670	2.897088	10.56687	2.792588	4.028342	8.401739	3.423084
<b>Observations</b>	344	344	344	344	344	344	344

Descriptive analysis reveals the minimum, mean, maximum and standard deviation figures of the all selected variables. Results from descriptive statistics (Table1) disclosed the mean, median, minimum and maximum value of 344 observations.

The line graph shows the relationship of between dependent and independent variables which can be seen from the following figure1. These all line graphs will show the trend of variables for ten years.

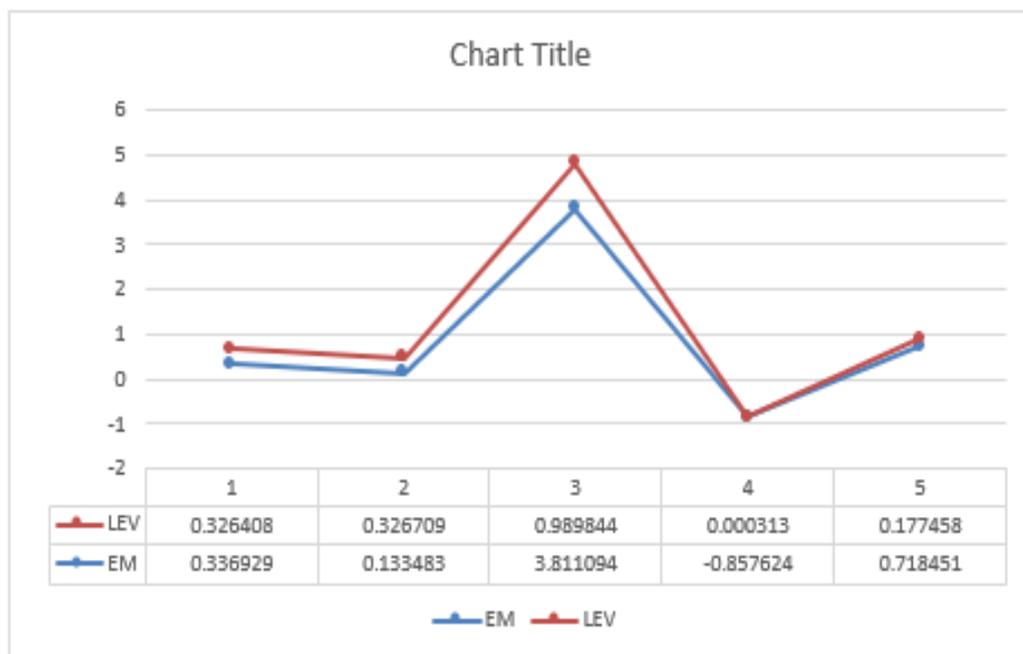


FIGURE 4.1: Relationship between Earning Management and Leverage

The descriptive statistic summarizes the characteristics of the data. Here you can see in the Figure 1 dependent variables earning management (EM) movement for ten years. The blue line in the given line graph shows the average value of earning management is 0.336929 with its standard deviation of 0.718451. The descriptive statistic also tell the maximum value of earning management is 3.811094. The red line in the graph which represent the summary about independent variable leverage, which has mean value of 0.326408 with standard deviation of 0.177458. The data of descriptive statistics highlight the maximum value of leverage if 0.989844. This line graph shows the movement of these variables yearly. The study of (Sweeney, 1994) directly proof and support the hypothesis that increase in external borrowing creates pressure on accountant to select accounting

measures which will show better financial position of firm. Jelinek, (2007) explains that availing debt facility reduces opportunities for earnings management, because the use of external leverage creates situation of repayment to lenders, repayment causes managers to pay value of interest and principal costs incurred for the use of leverage lend by investors.

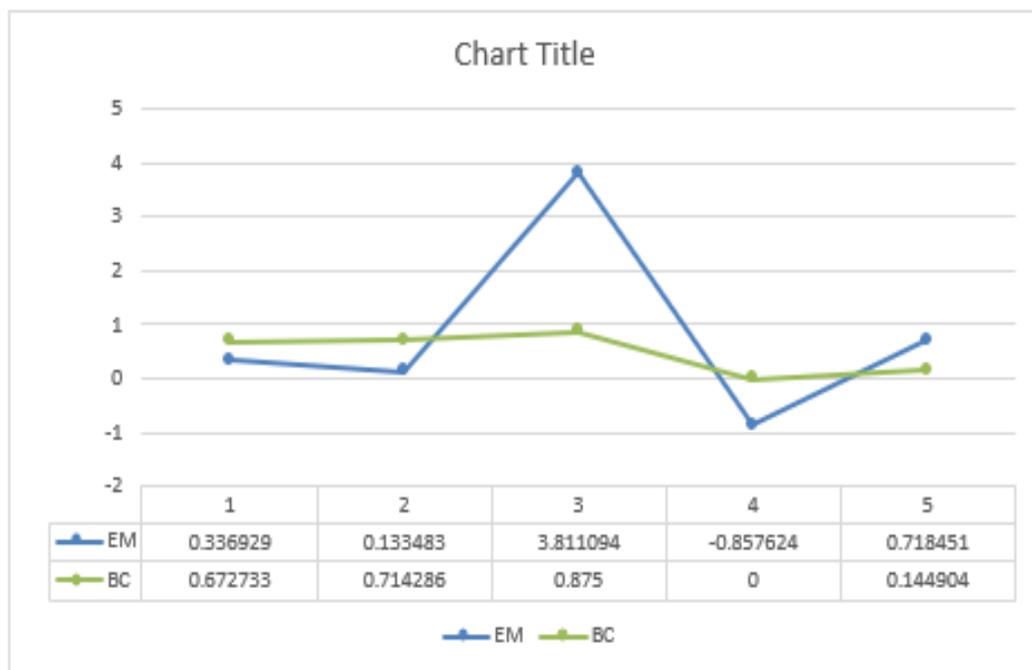


FIGURE 4.2: Relationship between Earning Management and Board Composition

**Figure 4.2** of descriptive statistics gives the summary about the features of corporate governance like (Board Size & Board Composition). For statistical analysis descriptive statistics help to understand the specification of the data. The given graph shows similarity in the data of dependent and independent variables.

If the dependent variable moving upward than the independent variable has the same change. Board composition which is independent variable of the study have mean value of 0.672733 with its standard deviation of 0.144904 respectively. The descriptive statistic tell the maximum value governance features 0.875000.

Fodio, Ibikunle, & Oba, (2013) test this hypothesis company internal control mechanisms and financial reporting quality in listed Nigerian insurance firms. The result produced that board composition has positive significant effect of firm earnings.

Moradi et al., (2012) investigate the link of board member and financial behavior of listed companies in Tehran. Their studied found inverse relationship no significant link between board composition and company annual reporting. Roodposhti & Chashmi, (2011) conduct research to test the effect of corporate governance mechanism on earnings management they have studied negative insignificant relationship between board composition and earnings management. Descriptive Statistic

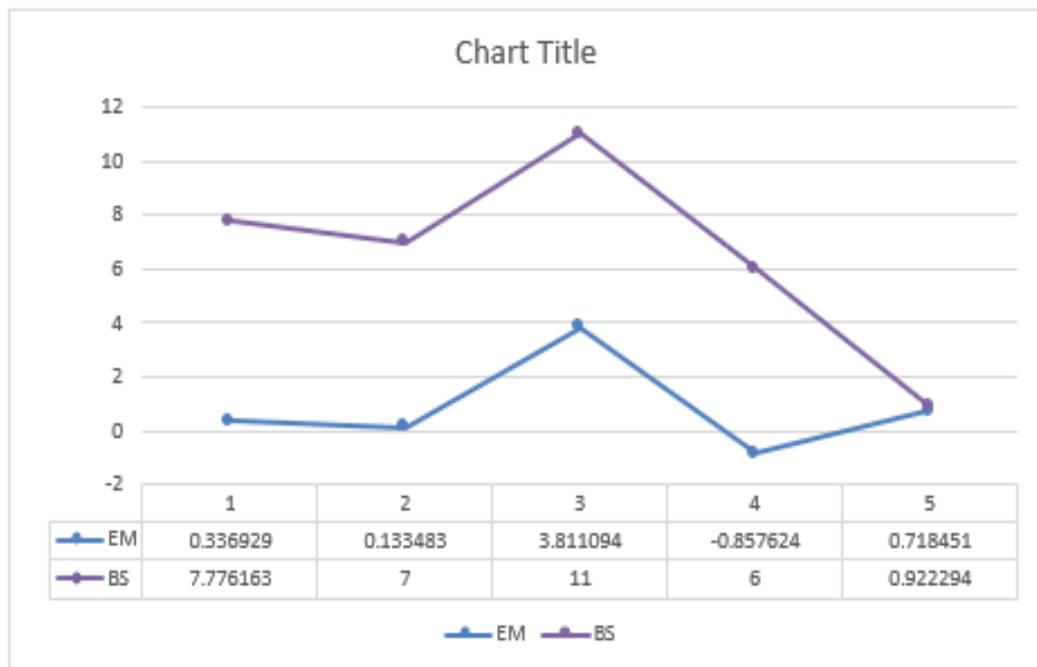


FIGURE 4.3: Relationship between Earning Management and Board Size

is very helpful to get basic information about the data. This information can be stated graphically or pictorially here information provided with the help of graph. The **Figure 4.3** of chapter 5 disclosed the mean, median, maximum, minimum and standard deviation value of second feature of corporate governance. Board size which have mean value of 7.776163. This mean calculated as the sum of all values divide by number of values. This given graph shows trend of earning management and board size both behaving consistently. The line graph shows their relations have inverse attitude at the end of selected period. Where these variables moving inverse direction. Wu, Lin, Lin, & Lai, (2009) observed that large size of board of directors can make effective monitoring mechanism and stop management to abuse in financial reporting. (Zhou & Chen, 2004) reveals large directors board

having competent people with vast educational and technical background, have different ideas to change the firm's value and produce qualitative reporting and ideally to represent the interests of shareholders thereby stopping management from earnings modification.

Fodio et al., (2013) observed in his study that governance control and recorded earnings quality in Nigerian listed firms from insurance sector, in time horizon from 2007 to 2010 found negative significant relationship of board size and earnings manipulation. Nugroho & Eko, (2012) also done his study on Indonesian listed companies and their study findings reveal same as above board size have negative relationship earnings manipulation

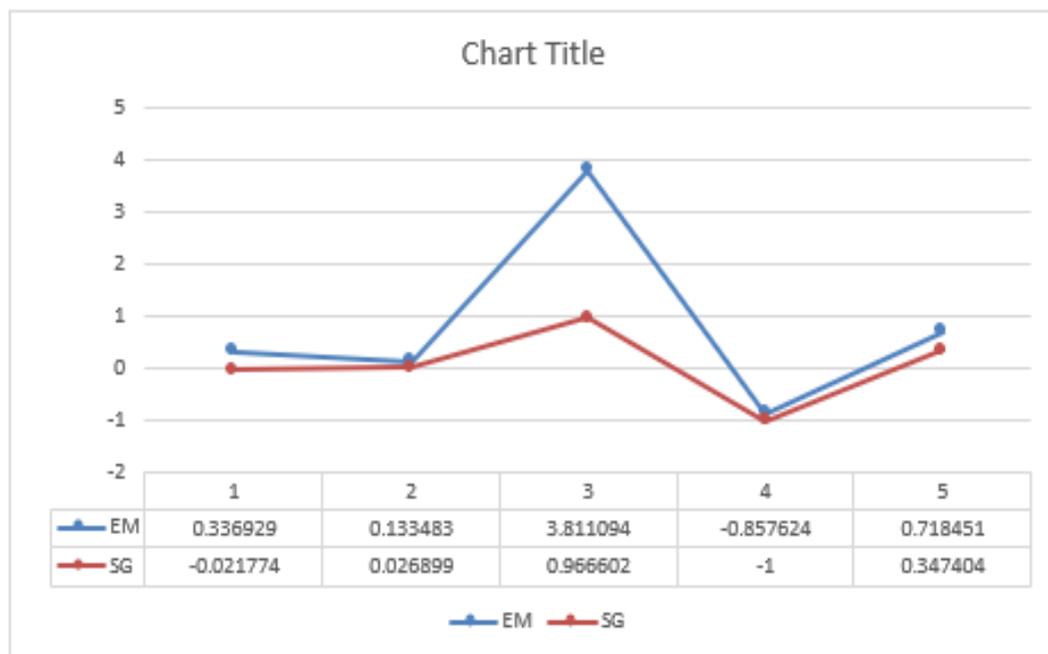


FIGURE 4.4: Relationship between Earning Management and Sales Growth

Basic two categories of measurement of descriptive statistics are central tendency and variability. Central tendency indicates the center of the data. The given five columns in **Figure 4.4** starts with mean value than media followed by maximum value of selected variables than minimum and ends on standard deviation. These two blue and red lines show the relationship of control variable with dependent variable. Both have a similarity if one goes up the other move to same side if one goes down the other one behave same.

Rahmy, (2015) studied to investigate the effect of increase in sales growth and company size on earning behavior of listed firm in Indonesia from manufacturing industry, they found positive relationship of sales growth and firms earning. Laurensky Suriadi, (2013) also investigate supportive argument that growth in sales opportunity has significant impact on firm value.

Hansen, (2014) measure that growth in sales volume have no impact on firm profitability. Mutiah, (2015) also rejects sales growth hypothesis they states sales growth have no effect on company earnings.

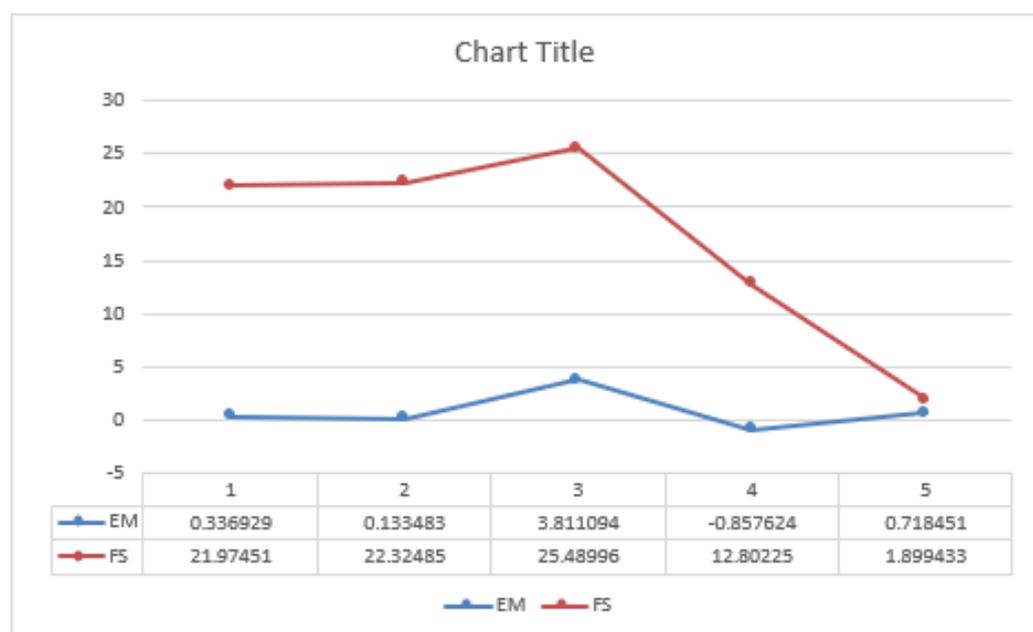


FIGURE 4.5: Relationship between Earning Management and Firm Size

**Figure 4.5** which have 5 columns and two rows on end, that shows the firm size have mean value of 21.97451, maximum value of 25.48996, minimum value of 12.80225 and standard deviation is 1.899433 from descriptive statistics outcomes. Which explain the potential relationship of control variable of the study with dependent variable.

Ali et al., (2015) observed with study analysis that a significant positive of firm size on firms profitability, big firms have to make manipulation in earnings because these firms always faced pressure from investor side to achieve the target level . The opposite result reveal by (Yangseon Kim, Liu, & Rhee, 2003) they disagree with

agency theory. They claim that larger firms run by strong corporate governance mechanism. Larger firms also liable to conduct audit by top four audit firms so the chance of earnings management manipulation becomes lesser.

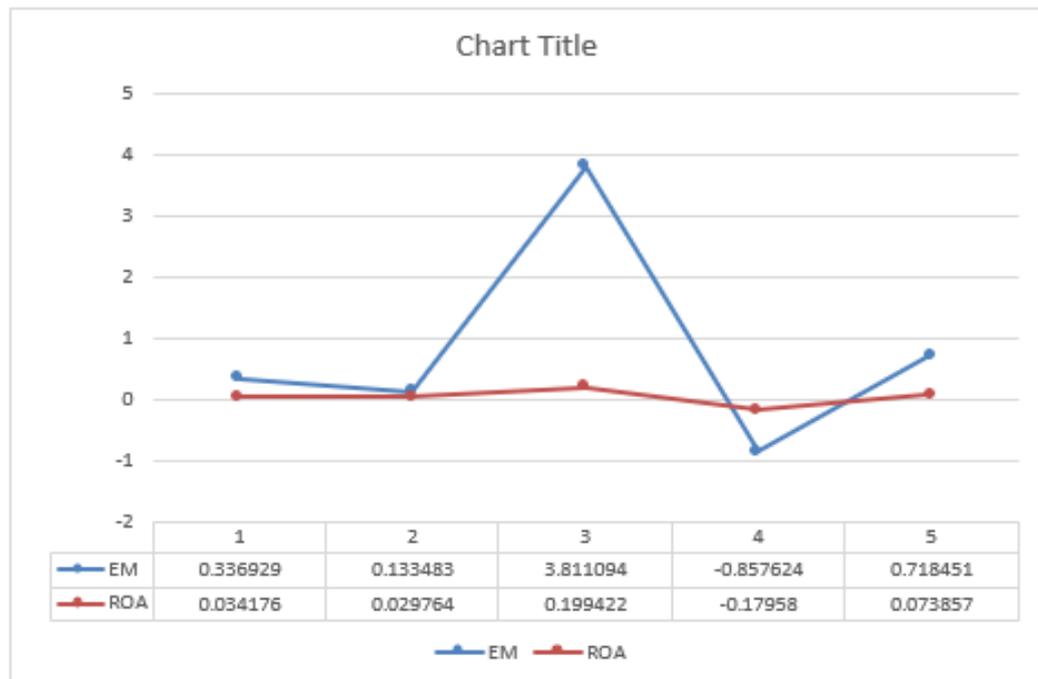


FIGURE 4.6: Relationship between Earning Management and Return on Asset

**Figure 4.6** shows which have same 5 columns, extract the short summary from descriptive statistic result. Descriptive statistic always useful for short summary of the data. The given line graph represents opposite relationship between return on asset and firm earnings.

The line graph shows the return on asset and earning management have not similarity. These two crossing with each other, if one moving downside the other have move to upward side. Which is continuous of study conduct by RATNAMAP-PANYUKI, MEIPITA SARI they have also observed inverse relationship between two.

J. Gitman (2009) (Gitman, 2009) Return On Assets (ROA) measures the ability of management, it has significant positive relationship with company financial position. (Asim & Ismail, 2019) research on manufacturing sector of Pakistan , they have observed the positive significant impact of return on asset with company earning management.

## 4.2 Correlation Analysis

The most useful tool and common type of analysis to test the relationship between two variables is correlation analysis. Correlation analysis explain the dependencies of different variables at a time.

Which also helps, to remove the problem of multi co-linearity if exist in the data. The correlation defines the linear relationship and level of correlation between independent variables. The Pearson correlation shows the value range between +1 or -1, where +1 indicates high positive correlation and -1 indicates a totally negative linear correlation, it also indicates below .80 proves the non-multi co linearity between them. In the perfect scenario or strong relationship and strong relationship the value will be 1.

If variables moving downward/upward with negative value, this situation shows the negative relationship exist between two variables. For all independent variables, coefficient sign indicates the relationship among variables.

Here is added Table 2 which showing, the correlation matrix result between independent variables. As per given figures, all variables are out of multi co linearity problem. The highest correlation between the Earning Management and Firm Size that is .09, and lowest one between earning management and return on asset which is -.06.

TABLE 4.2: Correlation Analysis

	<b>EM</b>	<b>LEV</b>	<b>SG</b>	<b>FS</b>	<b>BC</b>	<b>BS</b>	<b>ROA</b>
EM	1						
LEV	-0.003123	1					
SG	0.053206	-0.004879	1				
FS	0.092174	0.239721	0.130065	1			
BC	-0.004592	-0.034305	-0.07886	-0.14235	1		
BS	-0.027926	-0.047853	0.011001	-0.06234	0.096840	1	
ROA	-0.063834	-0.289356	0.299602	-0.10853	-0.059712	0.121865	1

## 4.3 Results of Diagnostic Test

### 4.3.1 Result of Redundant Variables Test

The result shows the F- stat and Chi-square of cross-section is less than .05 here fixed effect model will be used. The P-value is significant which also reject common coefficient model. In light of these result for this study the fixed effect model is appropriate.

TABLE 4.3: Likelihood Ratio Test

Effects Test	Statistic	d.f.	Prob.
Cross-section F	1.5839	-61,267	0.007
Cross-section Chi-square	106.25	61	0.000

As the result of likelihood ratio (Chi-square =0.0001) indicates that a Null hypothesis is accepted which means fixed effect model is appropriate over simple least square model.

### 4.3.2 Result of Hausman Test

TABLE 4.4: Hausman Test

Test Summary	Chi Sq. Statistic	Chi-Sq. d.f.	Prob.
Period random	38.972381	10.0000	0.000

The Hausman test has been run for the sampled data which gives direction the use of fixed-effect model instead of random-effect model. To test multi-collinearity between variables Diagnostic test has been carried out also which suggest that dataset has heteroscedasticity and autocorrelation.

## 4.4 Result of Regression

For Analysis between independent variables including (Leverage and Corporate Governance) and Dependent variables (Earning Management) we have used the

fixed effect model. **Table 4.4** indicates the Fixed Effect model, likelihood ratio is used to choose between the common effect model and fixed effect model.

Where F-statistic predict the effect of whole model. R square shows that how much change in explained in dependent variable due to independent variables. Modification or adjustment in other factors are shown by the adjusted R square statistic is all about the appropriateness of the hypothesis.

For authentication their liability and confirmation of statistical results, we have applied panel data regression to adjust the standard errors of coefficients against possible dependence in the residuals. Robust standard errors are widely accepted and commonly relied on in case of any violation to get the valid statistical regression results (Hoechle, 2007) Table 5 gives the results of Fixed-effect model:

TABLE 4.5: Fixed Effect Model

<b>Dependent Variable: EM</b>				
<b>Variable</b>	<b>Coefficient</b>	<b>Std. Error</b>	<b>t-Statistic</b>	<b>Prob.</b>
C	-5.3066	3.1697	-1.6742	0.0953
LEV	0.7308	0.3848	1.899	0.0586
BC	1.6092	0.733	2.1954	0.0295
BS	-0.0919	0.1052	-0.8737	0.3831
SG	-0.275	0.1591	-1.7283	0.0851
FS	0.2297	0.1382	1.6625	0.0976
ROA	-0.4903	0.7343	-0.6677	0.5049
R-squared	0.3363	Mean dependent var		0.3369
Adjusted R-squared	0.1473	S.D. dependent var		0.7185
S.E. of regression	0.6634	Akaike info criterion		2.2114
Sum squared resid	117.5118	Schwarz criterion		3.0711
Log likelihood	-303.3691	Hannan-Quinn criter.		2.5538
F-statistic	1.7799	Durbin-Watson stat		2.4834
Prob(F-statistic)	0.0004			

The result shows in regression model proves to be highly significant because the significance level is 0.000. and R-square of the study is quite acceptable with 33.62% which is good enough and this study is the continuation of previous literature result as (Aman, Pourjalali, & Teruya, 2006), (Zamri et al., 2013), (Abbadi, Hijazi, & Al-Rahahleh, 2016) and (Briamonte, Addeo, Fiano, & Sorrentino, 2017). Results of regression model shows that the leverage has positive impact on earning of the firms. The findings of the study prove that financial distress in organization has a significant positive impact on accrual earning management activities. When company's capital structure proportion is more with external debt rather than owners' equity, then managers of the companies are more motivated to manage their earnings. The result of the study reveals a company using high external debt, then management faced issue of debt covenant cost at that time they may go for accounting gaps to alter firm's earnings in respect to present a better financial position to get more benefits. So, they are always pick in increase in accrual earning management to present positive growth in respect to gain the investors trust. The results are also continuation of previous studies such as (Bassiouny, 2016); (Tabassum et al., 2014); (Vakilifard & Mortazavi, 2016).

Board size which is the feature of corporate governance have negative relationship with earning management. This study found the board size do not have any link with firm earning management.

The other feature of corporate governance board composition has a significant positive relationship with earning management. Where the board consisted on non-executive directors than there is less chances for managers to manipulate the financial data. Because non-executive directors participate independently on the other side executive directors have their personal interest so they can effect firm earnings. So the result of the study is the continuation of previous studies the board composition has significant relationship with earning management.

The control variables of the study also founded significant relationship with earnings management activities, only return on asset found inverse result. The sales growth which probability is 0.08 which shows the positive impact on dependent variables. However, sales growth is also founded significant, which is similar to

the findings of (Collins, Pungaliya, & Vijh, 2017). The reason of this can be firm which are growing that always have better financial position and the management of the company is in good position to deal with audit committee. The investor always wish to invest in that firm where growth is possible and investment is secure, so the management of big firms do not get involve in management activities.

The firm size which is also part of control variables, this control variable has probability of 0.09 which is linked with positive impact on earning management. The control variable firm size has positive significant effect on accrual earning management, which gives more opportunities for the decision maker to indulge in accruals earning management also increases. This positive significant effect could be that large firms are liable to show positive and profitability situation because they are under pressure from outside analysts and stakeholders interest. So, they manipulate income toward upward level accrual management. This could might be happen that large firms have effective management powers which provide or creates the space to bargain with regulatory authorities, auditors and shareholders, which may make possible for them to do possible manipulation in earnings.

The other independent variables of the study like ROA have founded to be insignificant and negative relation to accrual earning management, similarly to the previous studies of (Moradi et al., 2012); (Asim).ROA is a measure as firm profitability level which reveals how much profit made by the firm on his investment with reference to its total assets. The higher side profitability develops the potential behavior of the managers which lead them to made changes in firm earnings for their personal interest.

# Chapter 5

## Conclusion and Recommendation

### 5.1 Conclusions

This researched focused on to test the collective impact of leverage and corporate governance on Accrual earning manipulation in sixty-four firm form manufacturing sector and listed at Pakistan Stock Exchange for the period of ten years from 2009 to 2018. Earning management was only as the one chief dependent variable and leverage with corporate governance as independent variable along with three control variables, including sales growth, size of firm, and also return on asset the second chief independent variable corporate governance with sum of board composition, board size and family ownership. Family ownership is drop from the study due to presence of multi collinearity.

### 5.2 Findings

The regression equation results, indicates that leverage has a positive significant association with accrual earning management. It means if company using more outside source of finance than it put pressure on manager to make discretionary change in earning management either to show the expected profit level or to achieve targeted organizational goals. This study also reveals that the need to avoid used more external finance in order to restrict manipulations in their earnings.

The regression model results, reveals that corporate governance, which is, sum of board size, board composition only board composition has a positive association with earning management which means that board structure push board members to be make changes in firm earnings either to report the expected profit level or to attain specific organizational goals. The research indicated that the need to establish effective board structure and ownership structure in order to minimize manipulations in their earnings.

Sales Growth, Firm Size and Return on Asset these all study as control variable of the study. The findings of the study reveals that only return on asset has inverse relationship with earning management activities. Other two firm size and sales growth founded significant positive association with earning management.

The current statistical results extend literature which investigate the impact of debt level and corporate governance collectively on earning management. Moreover, the main findings of this study suggest that there is positive significant impact of debt on the performance of firms. Due to the increased in external source of finance, managers are highly under pressure for firm financial position and relationship with lenders, this situation push them in accrual manipulation. The result of this study gives direction for future researchers, who have interest in field of earning management.

### **5.3 Recommendations**

The current study outcomes, suggests that companies may get control on their external debt level in order to avoid the alteration in accrual management. When companies avail high level of external debt than this condition put pressure on management to show the growth to fulfill their debt agreement. The finding of the study suggest that effective internal control mechanism can minimize this type of activities. So where the companies have strong governance control than less chances of earning manipulation.

With help of study findings this is easy to conclude that firm size also ca plays a role to reduce the earning management activities. Larger firm always have a

large board of members, some are executive and some non-executive. So in larger board it is really hard to keep the information secret so the firm size also has an importance to reduce the unethical practice in corporate world.

In the light of research finding as we founded that the features of corporate governance have positive relationship with earning management. We consider only three characteristics of corporate governance as mention above Board Composition, Size and Structure. Due to multi collinearity issue we drop family ownership from our model.

The corporate governance has some more characteristics like audit committee, minority representative, gender diversity, institutional ownership, foreign ownership etc. It is highly recommended for further research these features of governance mechanism need to be researched, because this will open the door for researcher to do work on it will also add in literature how the corporate governance mechanism can help to reduce the influence on firm earning activities.

## **5.4 Limitations and Future Direction**

The limitations of the study which may cope in future research by other researchers. In this study, the Modified Jones Model 1995 has been used as a tool for measuring earning management. Whereas some other tool as proxy of earning management which could be better tradeoff between two.

Secondly, we studied as mainly gather the data of manufacturing companies in Pakistan from different sectors; sector-wise analysis can also be a fruitful for further research which will be addition in the area of earning management. Furthermore, we have studied only two independent variables other control variables like audit committee, gender diversity may be studied to extend the area of the study to explore better results.

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