

CAPITAL UNIVERSITY OF SCIENCE AND
TECHNOLOGY, ISLAMABAD



**Board of Directors’
Characteristics and Capital
Structure: Industry Wise
Analysis**

by

Muhammad Mohsin Mehmood

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

in the

**Faculty of Management & Social Sciences
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To My Beloved Parents



CERTIFICATE OF APPROVAL

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Abstract

Although abundant literature is available on the impact of board of director's characteristics on capital structure for the developed economies, there are few studies particularly on developing economies. The aim of this thesis is to contribute to the weak literature available on one such developing country, Pakistan. This thesis checks whether the determinants of capital structure follow the same theories across all industries or the impact of board of directors' characteristics on capital structure varies from industry to industry. In manufacturing sector, Textile, Cement, Sugar, and Fertilizers; and in non-manufacturing sector, Information, Communication, and Transport Services are selected. Ten firms are selected from the said sectors by their market capitalization listed in Pakistan Stock Exchange (PSX) during the period 2009-2019. The dependent variables are debt to asset and debt to equity as a proxy for the capital structure. The independent variables are CEO gender, CEO education, audit committee size, board meetings, and remuneration, while the firm size is taken as a control variable. Hausman test is used to decide whether fixed effect estimation technique will be used or random effect estimation technique will be used. The results indicate that leverage has a negative relationship with CEO gender, firm size and remuneration, whereas, a positive relationship is found between leverage and CEO education. The results also show that the relationship between leverage, and audit committee size and board meetings is insignificant for our selected sample. The findings of this study support the trade-off theory that enterprises should increase their debt ratio on an individual level in the capital structure to improve performance.

Keywords: Capital Structure, Debt Ratio, Non-Financial Sector, Pakistan.

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Abbreviations

ACS	Audit Committe Size
BM	Board Meetings
CEO-GEN	CEO Gender
DTA	Debt to Asset
DTE	DEbt to Equity
EDUC	CEO Education
FS	Firm Size
REM	Remuneration

Chapter 1

Introduction

1.1 Background of the Study

The function of the board of directors and chief executive officers (CEOs) in the governance of businesses is critical. Their importance in strategic decision-making at the firm, as well as their remuneration packages and duties, has considerably risen in recent years (Boschen and Smith, 1995). Nowadays, board of directors and CEOs' participation is one of the most significant factors in financial decision-making (Boal and Hooijberg, 2001).

Top executives make financial choices for the company (Basley, 1996). According to the famous book *Capital Structure Irrelevance* by Modigliani and Miller, (1958) a company's value is irrespective of its leverage, which is known as the Net Operating Income (NOI) technique. They believe that in a pure capital market free of taxes and transaction costs, the firm's value remains constant regardless of capital structure changes. In a frictionless environment with flawless capital markets and no corporation taxes, Modigliani and Miller, (1958) suggest that a firm's capital structure seems to have no impact over its values. Solaman's (1963) conventional technique, according to Pandey (2007), arose as a compromise to the NI approach's unchangeable characteristic.

The main goal of this research is to gather empirical information on board characteristics and capital structure sector wise. The top board is regarded essential

corporate administration structure, as it oversees and advises top management in carrying out their responsibilities to safeguard the interests of shareholders.

Chief Executive Officers are the most important members in the corporate world. CEOs, as members of the top management teams in businesses, can direct the firms to actively explore possibilities (Barnard, 1938), as well as govern the firms' structures and strategy (Lawrence and Lorsch, 1967; Thompson, 1967). CEOs, in particular, guide crucial decisions that might affect their companies' profitability (Child, 1972).

According to Drucker (1954), the performance of a firm's top board is the most essential determinants of the firm's survival and success. In other words, CEOs have a critical role in the company's success or failure. Profits deception was a main element in the scandals (e.g., Enron, WorldCom, Toshiba, and Satyam).

Companies' executives may employ a number of profit deception methods to avoid disclosing deficits or bad profitability, assuming that this will improve their public reputation. Such strategies not only confuse financial data users, but also destroy investors' trust in financial reporting (Malik, 2015).

As a result, public perception of financial management has risen (Hamid et al., 2013). According to past studies, CEO characteristics identified among numerous elements that effect organization leverage. The personality of a company's CEO is likely to have a significant impact on its accomplishment (Miller and Toulouse, 1985). The study focuses on CEO qualities because the CEO role is so important in the management. As a result, this research sheds light on the qualities of board of director's and their effects on company's leverage. Previous research has looked at the association between corporation leverage and a variety of industry and firm - specific factors.

Businesses with identical foundations frequently choose for a different type of corporate leverage (Cronqvist et al, 2012). This has inspired research on the influence of senior executives' personal characteristics, as top executives tend to be important factors in financial and other strategic choices (Bertrand and Schoar, 2003; Liu and Jiraporn, 2010). Finkelstein's (1992) study is based on previous research, however it concentrates on the decision-making authority of CEOs.

According to Adams et al., (2005), the CEO makes all significant choices in some organizations in some cases, choices are obviously the result of a census among top executives, while in others, and decisions are definitely the result of a census among the executives.

If various people hold opposing viewpoints, the distribution of decision-making authority within a company may influence which decisions are taken. Based on these notions, previous research has been conducted to see how CEO superiority among senior board members will affect capital structure decisions and to explain corporate capital structure in terms of the CEO's extent of decision-making authority.

Jensen and Meckling offered the "agency theory" as the theoretical foundation for this theory (1976). Capital structure theory goes all the way back to 1958, when Modigliani and Miller demonstrated that under the hypothesis that the capital structure is irrelevant in perfect capital markets. Other explanations for why market inefficiencies and frictions play a role in business capital structure decisions have developed since then.

Agency theory is one idea that has gained a lot of evidential proof (Jiraporn, et al., 2012). The basic principle of agency theory is the agency costs, which arise from a misalignment of interests between two parties inside a business, determine capital structure. CEOs, for example, may not always employ the optimum capital structure to maximize shareholder value.

Top executives, on the other hand, may opt for a capital structure that maximises their personal gains. In principle, predicting whether agency spending contributes to under or over leverage is difficult (Chintrakarn, et al, 2014).

The impact of a company's capital structure's debt and equity mix on its market value should be investigated. The company's debt-to-equity ratio can have a significant influence on its value and cost of capital. Because interest charged is tax exempt and decreases the loan's overall cost, the capital structure employs more borrowed capital to optimize shareholder wealth.

Furthermore, shareholders are not obligated to split their earnings with debt investors because debt investors receive a guaranteed return. The more borrowing

finance a company has, the riskier it is, and thus the greater its cost of capital. As a result, determining the important components of capital structure, their precise measurement, and the right capital structure for a specific organisation at a given time is critical.

Constant liabilities, such as debt, can be used as a governance instrument to reduce agency costs by lowering executives' free cash flow, which can lead to excessive leverage, (Mehran, Taggart, and Yermack, 1999). Furthermore, as the debt-to-equity ratio rises, the equity base diminishes, increasing the percentage of stock held by executives (Jiraporn et al., 2012). As a consequence, agency conflicts between shareholders and managers can be avoided (Jensen and Meckling, 1976).

CEOs, on the other hand, may embrace self-interests that require less leverage, such as maintaining management pragmatism and using cash flow freely. CEO power has a substantial impact on capital structure and can have a good or negative impact on business leverage. However, organisations may use less-than-ideal leverage if CEO authority exceeds a particular threshold, because established CEOs can deploy capital structure to their advantage. According to the theory, recent research has begun to focus on possible nonlinear dynamics within the CEO authority and capital structure link. Despite this, research on the subject is scarce, with much of it limited to studies undertaken in Western countries. Chintrakarn et al (2014), discovered a growing connection between CEO authority and leverage in a sample of non-financial US businesses. Whereas the conclusions from the Developed world are applicable to non-Western countries, there may be considerable differences due to cultural, economic, and institutional differences. In this paper, data from a typical market is used to try to close the gap.

1.2 Theoretical Background

Capital structure theory is founded on the Modigliani and Miller, (1958), thesis, which states that a firm's capital structure choices have no impact on its value. Management emphasizes the importance of capital structure in establishing value of corporations and cost of capital. The above-mentioned reasoning is completed by considering ideal capital markets in which there are no taxes, bankruptcy fees,

or information asymmetries. As a result, the assumptions of Modigliani and Miller (1958) are regarded to be excessively restrictive. Therefore they start realizing market imperfections and update their previous work in 1963 to incorporate the tax benefits of debt as a means of increasing business value. More problems in Modigliani and Miller's (1958, 1963) assertions have been uncovered as capital markets have matured. As a result, capital structure theories and research have been created with the objective of demonstrating the relevance of capital structure decisions.

Lam et. al., (2013), developed a norm theory, which said that behavioral elements should be acknowledged, specifically board of director's traits, biases personal attributes have an impact on the leverage decision. Board of director's compensation and their personal leverages impacting the corporations leverage, board of directors play a totally vital position in all essential choices regions of the corporation. The position of the board of administrator's within side the financing choices became embarked (Bae et al., 2011). Cronqvist et al, (2011), studied that personal financing conduct of the board of directors motivated their company financing conduct in recognize corporations controlled via way of means of them in particular in a vulnerable governance environment.

CEO's age is both positive (Fischer and Pollock, (2004), or negative in associated o firm performance (Zhang and Rajagopalan, 2010). Martin et al, (2009) examined the age and education of the CEO, and more studied approximately the gender of the CEO and their effect on corporation's value.

Female CEO's might also additionally purpose decrease leverage that may result in distortion of capital process. Board of directors performs a critical function in all regions of the firm and additionally withinside the capital structure decisions. Literature addressed diverse managerial norms, personal treatment CEOs compensation, personal leverage, employee treatment, CEO power, CEO dominance impacting the corporation's leverage.

Older CEO's also are reluctant to take volatile opportunities, which results in terrible overall performance (Wang et al., 2016).Board of director's traits specially related to corporation's performance and purpose firm overall performance. The

position of board traits in organization overall performance has been notably studied with beyond a long time via way of means of numerous studies “Do board of directors have an effect on organization overall performance”? And “How to do board of directors have an effect on organization overall performance”? Board of director’s values, experience and personalities has an effect on their choices (Hambrick, 2007). The younger CEOs choose to make use of extra debt; at the same time as the older ones have a propensity to have lots much given their preference for unpredictable monetary methods (Serfling, 2014).

All of the above concepts are geared toward gaining a better understanding of how businesses make capital structure decisions. Modigliani and Miller’s (1958) capital structure irrelevance thesis, which has been predicated on the underlying composition of a corporation’s equity and debt, as well as unsustainable expectations, paved the path for other theories of capital structure. The pecking order theory explains how a company raises money in a specific order, but the trade-off theory urges companies to maximise value by using the optimum debt-to-equity ratio.

These theories can be used to anticipate various management behaviors in connection to funding decisions, notably the impact of executive directors on those decisions. We will maintain the exposition brief because in the corporate finance literature, these theories are frequently discussed. For a comprehensive and relatively recent theoretical and empirical study of both the trade-off and pecking order theories, examine Myers (2003) and Frank and Goyal (2008).

1.2.1 Trade-off Theory

Businesses will seek for an ideal balance of justice and debt that maximises the gap between the benefits and costs of issuing debt, according to the trade-off theory. The debt gain is the tax benefit that debt holders receive from interest payments (Modigliani and Miller, 1963; Miller, 1977). Businesses are tempted to take on extra debt since interest is tax deductible. The direct costs of financial ruin (economic distressed costs charges) and the indirect costs of financial disaster are generally described as the costs of debt (indirect costs of financial ruin). Expenses associated with bankruptcy (Kraus and Litzenberger, 1973) and agency

Main theories of capital structure	Authors	Determinants of capital structure
Capital Structure Irrelevance Theory	Modigliani and Miller (1958)	Under certain assumptions the market value of a firm is independent of its capital structure. It does not matter if the firm's capital is raised by equity or debt.
Trade-off Theory	Kraus and Litzenberger (1973)	A company chooses the optimal capital structure by balancing the costs of financial distress and the tax saving benefits of debt.
Pecking Order Theory	Myers and Majluf (1984)	There is an order of preference for the financing of new projects. Firms prefer internal funds, then debt, and equity as a last resort. The pecking-order theory states that the hierarchy is structured this way because of the transaction costs involved in each form of financing, especially those associated with the problem of asymmetric information.

FIGURE 1.1: Capital Structure Theories

expenditures associated with financial troubles are examples of these obligations. The merits of debt tax deductibility of interest, risk of insolvency, and agency conflicts, according to Fama and French (2002), can be used to establish the best capital structure.

Amongst the most fundamental concepts is the capital structure theory, which states that the optimal amount of debt seems to be wherever the effective benefit of borrowing finance equals the effective cost of borrowed funds. Adjusting equity and debt levels to reconcile the tax benefit and the cost of financial hardship might improve a company's capital structure. Academics disagree on what constitutes a benefit and what constitutes a cost.

The "Capital Structure Puzzle" is explained utilising the trade of theory as a theoretical framework, eliminating the restrictions of MM Myers' (1984) capital structure irrelevance assumption. According to Myers (1977), utilising debt to balance the cost of financial difficulties and offer an interest tax shelter up to a specific level. Direct expenses (e.g. legal and administrative reductions in fee of the organization's assets throughout the financial ruin process) are included in the costs of financial disaster (e.g. absence of commercial business with customers

who want commercial enterprise guarantees from their suppliers). Aside from these bankruptcy expenses, the costs incurred in the process of disputes arising from this trade-off approach must also take equity and debt holders' interests into consideration. Managers can alter the riskiness of their assets after loans are issued, as Jensen and Meckling (1976) indicate.

This sort of behaviour is referred to as the "asset substitution problem." However, reasonable debt holders are aware of this risk and, as a result, establish debt contracts to prevent managers from shifting their focus to higher rates for debt acquisition. The whole cost is carried by the shareholders in both situations, as Jensen and Meckling (1976) illustrate, and the more debt the firm employs, the greater the risk of financial hardship costs. Firms will want a particular degree of leverage in order to sustain profitability, according to the trade-off hypothesis.

1.2.2 Pecking Order Theory

According to Myers and Majluf (1984) and Myers (1985), corporations have a level of priority in the usage of their financing sources due to unfavorable selection costs. The idea is based on the track records of management and outside investors. Companies might lose out on new lucrative funding prospects if outside money is necessary since managers are typically more aware of company potential than outside investors.

Myers and Majluf (1984) present pecking order theory based on Donaldson's (1961) results that management prefers internally generated money over external funds, assuming an ideal capital market as advocated by MM (1958). Pecking order theory proposes that organisations prefer internally generated funds over borrowed funds and explains how corporations first use internal money, then issue debt, and then issue equity capital to be a last choice. Al-Tally (2014) affirmed that corporations prefer to fund new investments first with internally produced cash, next with debt capital, and finally with an equity offering as a last choice.

According to the pecking order concept, when domestically produced funds are inadequate to fulfill investment demands, firms borrow more (Shyam-Sunder and Myers, 1999). According to Myers (2001), a company's debt ratio represents the

total amount of external investment, and organisations with better income and development potential borrow less. In order to avoid possible outward lending, earnings are kept if the firm has no investing possibility. Furthermore, the cumulative external funding is represented by the debt ratio, which is not optimal.

Traders (who have far fewer records than managers) presume the company's correct pricing from the supervisor's willingness to dispute fairness. According to Myers (1984), if debt is available and unstable, it is more preferable to equity since it is less sensitive to negative choice costs. To put it another way, traders want an adverse choice top class that lowers the price of less volatile equities. The pecking order idea arose as a result of these discrepancies in data. When new funding options arise, organizations would choose to employ retained income then debt, and at last equity.

Despite the fact that neither the trade-off nor the pecking order theories can account for all of the stylized data found in real life, they are useful tools (Frank and Goyal, 2008, 2009). According to empirical investigations, managers operate as the pecking order theory predicts when they have a shifting goal leverage ratio in mind.

1.2.3 Market Timing Theory

Baker and Wurgler's (2002) market timing hypothesis has sparked debate among trade-off and pecking order theorists. The market timing idea states that management choose the most cost-effective and advantageous financing option based entirely on current credit and equity market circumstances (Jahanzeb et al., 2013). This theory stated that firms should issue new stocks and repurchase them when inventory costs are high, or issue debt when inventory costs are reduced or market interest rates are cheap (Baker and Wurgler, 2002). As a result, market movements have an influence on capital structure decisions made by agencies. Firms change their leverage to take advantage of favourable price possibilities, according to market timing theory. If companies' debt is underpriced as a consequence of market uncertainty, leverage should be negatively associated with uncertainty (Khan et. al; 2020). In booms, when assets are overvalued, agencies have an incentive to issue excess inventory, according to the excellent judgement above.

Firms issue excess inventory when their share price is exorbitant, and they buy it back shares when company stock value is discounted, according with market timing theory of capital structure (Baker and Wurgler, 2002). Share price fluctuations have an impact on business funding selections and, as a result, the company's capital structure. According to Baker and Wurgler (2002), market timing theory doesn't really advance to targeted leverage since equity operations are totally timed to stock exchange circumstances, which is compatible with the capital structure pecking order hypothesis. This suggests that market timing-induced changes in capital structure could last a long time (Bessler et al, 2008). This statement illustrates why leveraging factors are inversely connected to historical market performances (Bessler 2004) and why stock returns, according to Welch, (2004) are the most important predictor of capital structure . Market timing, according to Hovakimian (2006), has little long-term influence on a firm's capital structure. Alti (2006) indicates that market timing's impact on gearing fades completely after two years.

As a result, the market timing hypothesis forecasts a low level of debt before a downturn in the economy. Prior to the 2008 market crisis, however, interest rates were extremely low (Crotty, 2009), encouraging businesses to take on more debt. To put it another way, prior to the financial crisis, businesses had incentives to both reduce and increase their debt levels. Furthermore, market timing speculation believes that firms increase their leverage during recessions, i.e. during crises, when property values are low or loan values are low (Frank and Goyal, 2003).

1.3 Research Gap

The study revealed that a majority of capital structure research efforts are focused on all industries as a whole, with just a little amount of attention paid to individual industrial sectors (Bajaj, Singh et al., 2020). The majority of capital structure research has focused on quantitative variables. However, there is another area where qualitative factors influence financial decisions (Bajaj, Singh et al, 2020). In this study, we will look at the characteristics of the board of directors in relationship to the capital structure, which is qualitative in nature. Focusing

on a particular area removes the issue of whether firms in similar industries use the same theory or have similar debt patterns (Bajaj, Singh et al., 2020).

(Awan, 2016) examined the factors that influence capital structure in Pakistan's textile industry, but the study was confined to only eight firms from 2009 to 2013. Memon et al. (2012) looked at capital structure and financial performance from 2004 to 2009; however they employed the ROA as a proxy. (Naseem, Jun Lin, et al., 2019) investigated the impact of a chief executive officer's (CEO) personal and organisational characteristics on firm performance, but only in the context of developing country economies. However, our research sheds light on board of director's characteristics in relation to capital structure.

1.4 Problem Statement

In established economies such as the United Kingdom (Liu, 2016) and the European Union, there is literature on the impact of diverse board qualifications on capital structure (Rodriguez-Fernandez et al., 2014). There is some study on the impact of CEO attributes on capital structure, although it is limited to developed economies (Bertrand and Schoar, 2003). The investigation is not yet completed. A brief survey of the literature on developed and developing economies is presented, although there are few research, particularly on developing economies such as Pakistan. This research examines the characteristics of the board of directors in relation to capital structure and the impact of such characteristics on capital structure decisions.

1.5 Research Questions

This study tried to answer the following questions:

Research Question 1

What is the impact of CEO gender on leverage?

Research Question 2

What is the impact of CEO education on leverage?

Research Question 3

What is the impact of audit committee size on leverage?

Research Question 4

What is the impact of board meetings on leverage?

Research Question 5

What is the impact of remuneration on leverage?

Research Question 6

What is the impact of firm size on leverage?

1.6 Research Objectives

Research objectives of the study are as follows:

Research Objective 1

To investigate the role of the board of directors characteristics effecting capital structure.

Research Objective 2

To examine whether the role of the board of directors characteristics effecting capital structure whether it is industry specific or not.

1.7 Significance of the Study

The study provides an important understanding about the qualitative aspects impacting the capital structure. This study analyzes a niche segments resolve the doubt whether firms in a similar industry follow a similar theory or have similar debt pattern. This study helps the policy makers in manufacturing and non-manufacturing sectors of Pakistan for strengthen financial performance.

1.8 Organization of the Study

The rest of the research is organized as Chapter 2 covers the literature review on the issue. Chapter 3 discusses the data and methodology, which includes the

econometric model; section 4 discusses the results and discussion. Chapter 5 discusses the study's conclusion, suggestions, and future directions

Chapter 2

Literature Review

According to Hambrick (2007), the most efficient method of determining a company's overall performance is to examine the basic features and unfairness of the successful players, as these are the top management. These theories are largely based on Hambrick and Mason's upper echelons concept (1984). The idea is that management qualities may be used to forecast the outcomes of a company. The hypothesis is whether the executives' conceptual base and morals impact how they evaluate strategic issues. It relates to a person's level of knowledge, talents, beliefs, and information processing capacity, all of which influence how they make decisions (Hambrick, 2007). There has been a rise in research on managerial qualities during the previous decade. Managers' social and physiological traits, according to Shefrin (2001), can affect a range of control decisions.

Quite a lot of studies have discovered that CEO personality traits influence on decision-making. Byrnes et al. (1999), looked at CEO gender and risk preferences. Brown and Sarma (2007) examined CEO arrogance and acquisitions. Barros and Da Silveira (2007) examined the CEO founder and leverage. Bamber et al. (2010) looked into the CEOs age and their willingness to provide financial data freely. The CEO age and voluntary desire for economic transparency were studied by Li et al. (2011) Bamber et al (2010).

Additionally, CEOs have a great degree of power over respective firms' future economic consequences. Several empirical studies and persons in the fields of CEO turnover and company governance (Kramarz and Thesmar, 2013) have backed up

such claims (Jiang et al., 2010; Demerjian et al., 2013). Ting et al. (2015) investigated how CEOs' non-public characteristics influence their economic leverage. Gender, education, expertise, tenure, age, professional background, enjoyment, stockholding, and dualism are all characteristics to influence CEO behavior, according to the prior study (Bamber et al., 2010; Jiang et al., 2013).

Numerous research on the characteristics of CEOs had recently been conducted, including studies on CEO age and the amount of money raised (Badru et al., 2017). The impact of CEO ethnicity on business vulnerability and CEO control on company social obligation disclosures (e.g., experience, age, education, expert competence, and gender) (Mallin and Farag, 2018). (Muttakin et al., 2018), Considered together, this collection of studies offers light on how men and women CEOs affect their organizations and lays the groundwork for future study in related fields. Several studies have looked into the effects of gender representation on company's board effectiveness. According to Carter et al. (2010), increasing the size of the board can enhance surveillance effectiveness.

Kang et al., (2010), revealed that female directors are well received by investors. Adams and Ferreira (2009), claim that Female directors are more likely to attend board meetings, which are the most common technique for obtaining critical monitoring data, implying that gender varied forums make more effort towards disclosing executive directors. "Women (like external shareholders, ethnic minorities, and foreigners) usually provide a different view on challenging subjects, and this might help accurate informative biases," according to Francoeur et al (2008). Furthermore, female board members are considerably more likely than male board members to take active positions on their forums, according to a recent Finnish study (Virtanen, 2012). According to prior study, women are much more likely than men to ask questions and argue over topics (Ingley and Walt, 2003). There is proof that forums with more females have higher degrees of public openness and management reporting control, in addition to strong earnings (Gul et al., 2011). We believe that a more diversity board members will become more effective, resulting in fewer statistical asymmetries and a higher proportion of volatile securities in the corporation's capital structure, based on these variables. Let's take a closer look at the Board of Directors Chairperson, particularly the Chair/CEO duality.

Because of the excessive use of energy and the difficulty of outsiders to exhibit appropriate executive engagement due to excessive use of energy and unfavourable conditions, a board of directors whose chairman is also the CEO, in this perspective, must be considerably less unbiased (Duchin et al., 2010). CEO uncertainty is linked to a reduction in company voluntary disclosures, according to Gul and Leung (2004). As a result, companies with a CEO who is also a member of the board of directors must deal with large statistical asymmetries, and we expect them to choose less volatile funding sources. During the last decade, there has been an increase in study on management characteristics. Shefrin (2001) claims that managers' social and physiological characteristics can influence a variety of control choices.

According to some of the research, the CEO's attributes have an impact on decision-making. Byrnes et al. (1999) analyzed CEO gender and risk perception, whereas Brown and Sarma (2007) investigated CEO optimism and acquisitions and mergers. Bamber et al. (2010) looked into the age of CEOs and their willingness to provide financial information voluntarily. CEO age and deliberate willingness for economic transparency were researched by Li et al. (2011). CEO founder and leverage were investigated by Barros and Da Silveira, (2007). CEOs also have a significant impact on the aforementioned economic issues of the organizations' outcomes. Numerous experiential studies have been carried out (Demerging et al., 2013)

Some people credit the CEO's success to his or her background or personality at the top of the corporate ladder (Hambrick and Mason, 1984; Zhu and Chen., 2015; Wang et. al., 2016). Business performance has been related by leadership experts to behavioural characteristics (such as leadership styles) (Waldman et al., 2001). Scholarly research has attempted to link executive traits to corporate performance. They developed largely from Hambrick and Mason's landmark work on the upper echelons theory (1984), which asserts that executives behave based on their own interpretations of strategic situations, which are influenced by their own experiences, values, and personalities (Hambrick, 2007). As a result, a body of research has emerged that pinpoints key CEO qualities linked to business strategy (Chatterjee and Hambrick, 2007; Simsek et al., 2010).

Countless investigations on CEO characteristics have recently been published, including one on the impact of CEO demographic traits on capital raised (Badru et al., 2017) and another on the impact of CEO age on capital raised, as well as one on the impact of CEO authority on company social responsibility disclosures (Farag and Mallin, 2018).

This rush of new research, compiled by Muttakin et al., (2018), sheds insight on how men and women CEOs affect their organisations and gives food for future research in related disciplines. One of the most crucial indications that can be used to attract investors' attention to a firm is its overall performance.

The effectiveness of the control's policies and activities is also evaluated based on the firm's overall performance. Economic reporting cycle's stakeholders utilize information on the company's overall performance to make a variety of financial decisions (Fauzi et al., 2010). Because of the high level of responsibility and attention required of stakeholders, CEOs strive to ensure that their companies' results are in line with their goals. As a result, in order to become the CEO of a company, a man or woman must possess desirable characteristics and criteria. There has been an increase in study on the influence of CEOs on overall business success in recent years, including reactions of stock market to unexpected CEO death statements (Burgelman et al., 2018).

One of the most crucial indicators used to draw investors' attention is a company's performance. The success of management policies and activities is also measured by the firm's performance. The financial reporting circle's stakeholders use data on the firm's performance to make a variety of economic decisions (Fauzi et al., 2010). CEOs must guarantee that the firms' performances are in line with their aims due to the high level of accountability and commitment from stakeholders. As a result, a person must possess specific abilities and credentials in order to become the CEO of a corporation. The impact of CEOs on corporate performance has sparked a rise of study in recent decades (Burgelman et al., 2018). To study the extent to which CEOs contribute for the unpredictability of performance of the company, researchers have used methodologies such like variance decomposition (Crossland and Hambrick, 2007) and stock market responses to abrupt CEO death news (Quigley et al., 2017).

Researchers in a number of industries have used distinct techniques to explore the degree to which CEOs account for the variability of business success and variance decomposition (Crossland and Hambrick, 2007). Despite these limitations Hambrick and Finkelstein, (1987), previous research has repeatedly demonstrated that CEOs pay attention to their firms' overall performance.

Certainly, the CEO's power has expanded significantly with time (Quigley and Hambrick, 2015). Furthermore, research has gone further than the claim that CEOs are crucial to inquiries into the routes via which they influence company's overall success, with a focus on human attributes.

Over the last decade, there has been an increase in the number of research on management traits. Managers' social and physiological features, according to Shefrin (2001), may influence a variety of management decisions. CEO qualities have been proven to affect decision-making in several studies. Byrnes et al. (1999) evaluated CEO gender and risk-taking attitudes, whereas Brown and Sarma (2007) explored CEO recklessness and business acquisitions.

CEO age and voluntary financial disclosure were examined by Barros and Da Silveira (2007); CEO age and investment decisions were explored by Bamber et al. (2010); CEO age and investment decisions were evaluated by Li et al. (2011) and Serfling (2012); and CEO age and investment decisions were examined by Tomak (2013).

Furthermore, CEOs have a tremendous impact on the financial success of their organisations. These statements have been supported by a number of empirical studies on CEO turnover (Kramarz and Thesmar, 2013) and corporate governance (Demerjian et al., 2013). (Jiang et al., 2010; Bamber et al., 2010 and Demerjian et al., 2013). Brown et al. (Brown et al., 2012). The financial leverage effects of CEO personal traits were explored by Ting et al. (2015).

Advisory and monitoring are the two most essential roles of the board of directors (Adams and Ferreira, 2007). Expert counsel and access to essential information and resources are provided to the CEO as part of the advisory function (Fama and Jensen, 1983). Second, the board of directors is responsible for overseeing, disciplining, and removing underperforming management teams in order to guarantee that executives operate in the best interests of shareholders.

The researchers investigated which CEO traits translate into meaningful company overall performance impacts using a range of theoretical perspectives. Some executives link the company's overall performance to the CEO's background or personality (Wang et al., 2016; Zhu and Chen, 2015; Hambrick, 2007). Characteristics (such as management styles) have been linked to overall firm success by researchers (Waldman et al., 2001).

The link between executive traits and corporate performance has been studied in research studies. They got their start as a result of Hambrick and Mason's (1984) seminal work on the top echelon concept, which says that executives behave based on their own perceptions of tactical scenarios as a result of their own expertise, beliefs, and attitudes (Hambrick, 2007).

As a result, several studies on the traits of male and female CEOs that are connected to corporate strategy have been published (Chatterjee and Hambrick, 2007; Simsek et al., 2007). 2010). According to these research, the CEO's personality traits have an impact on a company's strategic decisions. The theory that underpins this method now not only relies on top-echelon to support the basic affiliation, but also looks to descriptive factors at the CEO level and, in general, links this to the fundamental decisions and consequences seen at the company level. Gender, education, expertise, tenure, age, professional history, experience, shareholding, and dualism are just a few of the characteristics of CEOs that have been discovered in prior research as influencing their behaviour (Bamber et al., 2010; Jiang et al., 2013).

Several studies on CEO characteristics have recently been published, including one on the CEO age and the amount of capital raised (Badru et al., 2017), one on the CEO demographic characteristics (e.g., experience, age, education, professional experience, and gender) on corporate risk-taking (Badru et al., 2017), and another on the CEO demographic characteristics on corporate risk-taking (Farak and Mallin, 2018).

Corporate social responsibility disclosures are within the authority of the CEO (Muttakin et al., 2018). Taken together, this swath of study illuminates how individual CEOs influence their companies and serves as a catalyst for further research.

Decisions concerning capital structure are made by company leaders. Endogenous linkages exist between executive salary and capital structure. The influence of capital structure on CEO remuneration has been investigated in a number of academic papers. Theoretical models and empirical testing have both been accepted by academics. Capital structure and CEO remuneration do have a beneficial relationship..

High debt levels produce this positive link because they raise a company's bankruptcy expenses, creating negative incentives for leaders. These research back up the idea that capital structure has an impact on CEO pay by changing the cost of human capital bankruptcy. Internal governance is where the company's CEO salaries and capital structure are born. The firm's profitability and company are the primary elements influencing the endogenous link between the two. Potential strategic risk management capability and governance framework. Executive remuneration has an effect on the capital structure when there is a management defence.

Researchers have looked into a number of distinct qualities in the past, such as the CEO's expertise and background (Cooper and Uzun, 2012; Hamori and Koyuncu, 2015), CEOs with numerous directorships (Chiang and He, 2010), education (Ng and Feldman, 2009), worldwide experience (Khavul et al., 2010), and gender. The demographics of CEOs were also taken into account by the researchers, such as age (Yim, 2013; Amran et al., 2014) and gender (Khan and Vieito, 2013; Chen et al., 2016), as well as personality qualities including center self-evaluation (Hiller and Hambrick, 2005; Simsek et al., 2010), hubris (Hayward and Hambrick, 1997), and humility (Chen et al., 2015). Although this line of inquiry has shed light on the influence of CEOs on organisations, only a few of the studies have linked CEO traits to overall company success.

Developing countries have a long history of providing incentives to reduce total export tax burdens. Most developing countries provide exporters with incentives such as tax exemptions, export finance programmes, and other measures to aid exports, such as allowing companies to decrease prices without impacting their net profits.

In order to boost export growth, export promotion has been a defining aspect of most South Asian countries' trade strategies in recent years. As countries

compete for the same market, export incentives have become more sophisticated, and governments attempt to offer a wider range of export incentives than their competitors. Increasing the incentives to advertise and compete, on the other hand, has a positive impact on exports while costing the government money.

Boards are in charge of ensuring that management's activities and behaviour are in line with the owners' best interests. They have the authority to appoint, remove, and reward top managers, as well as approve and supervise major decisions (Fama and Jensen 1983a; Jensen, 1993). The oversight provided by a board of directors aids in lowering agency expenses and protecting shareholders' interests. A lot of empirical study has been done on board of director monitoring and corporate performance (e.g., Jensen, 1993; Agerwal and Knoeber, 1996; Hermalin and Weisbach, 2001).

According to several research, some traits are required for successful board monitoring. To highlight the board's monitoring capabilities, Jensen (1993) looks at three factors: board composition, board leadership structure, and board size. The proportion of independent directors on the board has sparked the most concern in terms of board composition.

Agerwal and Knoeber (1996), for example, look at a variety of governance factors and find that board independence is the only one that consistently influences company value. When the CEO and Chair of the Board of Directors are the same person, a conflict of interest occurs (1991, 2001). In terms of board size, studies show that smaller boards are more successful since they encourage open dialogue, prompt decisions, and are easier to manage (e.g., Lipton and Lorsch, 1992; Jensen, 1993).

To summarize, this research demonstrates the qualities of a man or woman CEO that impact a company's overall success and encourages future research in similar areas. Several studies have demonstrated that CEOs have a major impact on the effectiveness of their companies since they have the most authority and are in control of creating and employing strategies enforcing strategies for the success of their businesses (Liu et al., 2018). Previous research on CEO traits and their influence on financial reporting quality criteria is reviewed in this study. A lot of studies have discovered that the CEO's characteristics have a significant impact

on the quality of financial reporting (Huang et al., 2012). Academics are becoming increasingly concerned about the impact of management features.

According to Hambrick (2007), the best method to analyse a company's success is to look at its senior executives' inherent dispositions and biases. The upper echelons hypothesis developed by Hambrick and Mason is the basis for these assumptions (1984). According to the hypothesis, managerial traits can help predict business results.

According to the thesis, executives' cognitive foundation and values impact the basis of their customised interpretations of strategic events. It reveals a person's knowledge base, abilities, beliefs, and information processing aptitude, all of which impact decision-making (Hambrick, 2007).

Lam et al., (2013) proposed a norm principle stating that behavioral elements, particularly board of administrator traits, biases private attributes, influence leverage judgments. The company's leverage is influenced by the pay of the board of directors, as well as their personal leverage. All of the company's main decisions are made with the input of the board of directors. The function of the board of administrators in financial decisions more clearly defined (Bae et al., 2011). (Cronqvist et al., 2011) looked at how the board of directors' private financing decisions affected their corporate funding decisions when recognizing firms controlled by them, especially in a hazardous governance environment.

2.1 CEO Characteristics and Capital Structure

One of the most significant indicators used to draw investors' attention is a company's overall success. The company's total performance is also used to evaluate the effectiveness of management's policies and operations. With the aid of the stakeholders in the financial reporting circle, the data on the company's overall performance is used to make a range of financial decisions (Fauzi et al., 2010). CEOs want to guarantee that their firms' results are in accordance with their aims because of the high level of responsibility and commitment demanded of them while working with stakeholders. As a result, in order to become the CEO of a firm, a person must possess specific qualities and criteria.

There has been a surge in academic interest in the influence of CEOs on overall business success in recent years (Burgelman et al., 2018). Unique techniques, such as variance decomposition (Crossland and Hambrick, 2007) and stock market reactions to unexpected CEO demise announcements, have been used by researchers in a number of sectors to evaluate the amount to which CEOs account for the variability of business performance (Quigley et al., 2017). Despite the ongoing debate (Fitza, 2014) and the restrictions that CEOs may face (Hambrick and Finkelstein, 1987), prior research has repeatedly demonstrated that CEOs contribute to overall business success. Indeed, the CEO's power has risen dramatically over time (Quigley and Graffin, 2017).

Furthermore, the research has gone beyond the competitive pressures that CEOs face to include questions regarding the channels via which they influence a company's overall success, with an emphasis on personal qualities. The researchers investigated which CEO traits translate into meaningful company overall performance results using a range of theoretical approaches. Some link a company's overall performance to the CEO's history or personality (Hambrick and Mason, 1984; Zhu and Chen, 2015 and Wang et al., 2016). Behavioral variables (such as management styles) have been related to overall firm success by researchers (Waldman et al., 2001).

Academic studies have attempted to explain the relationship between CEO traits and performance, as well as the performance of the organisation. They developed mostly from Hambrick and Mason's (1984) seminal work on the upper echelons concept, which states that executives behave based on their own perceptions of strategic situations as a result of their experiences, personalities, and values (Hambrick, 2007). As a result, studies on the traits of male and female CEOs that are connected to corporate strategy have been conducted (Chatterjee and Hambrick, 2007; Simsek et al., 2010). A similar study discovered that a company's strategic decisions are influenced by the gender of the CEO.

2.1.1 CEO Gender with Capital Structure

When analysing the influence of CEO characteristics on overall company success, the gender of the CEO is an essential demographic element to examine (Frank

and Goyal, 2007). The gender of a company's CEO is connected to its financial performance. The capacity of male and female CEOs to take risks may be influenced by biological and societal variations (Sapienza et al., 2009). Female CEOs, on the other hand, are more risk cautious and are subjected to more demanding conditions as well as pressures from current investors (Gupta et al., 2018). Female CEOs are at a higher risk. Gender counts when it comes to risk taking since female CEOs are more risk averse than male CEOs (Palvia et al., 2015).

The gender of the CEO is an essential demographic component to examine when analysing the influence of CEO trends on overall company success (Frank and Goyal, 2007). Gender has been investigated from a number of angles in a variety of areas. Psychology research focused on social gender disparities rather than leadership inequalities, as opposed to control studies that focused on leadership inequalities. Every other important characteristic of a CEO is a predilection for commercial financing.

According to a variety of theoretical studies, CEO characteristics may have an influence on a company's overall performance. Female CEOs may use less leverage than their male counterparts despite being more risk averse, resulting in an unbalanced capital allocation process (Faccio et al., 2016). Furthermore, corporations led by women are believed to be much less concerned with income management than firms led by men when it comes to CEO gender and financial reporting quality. Female CEOs have also been shown to possess remarkable skills that can have a significant impact on financial reporting procedures and corporate strategic direction (Belot and Serve, 2018). Therefore, we proposed the following hypothesis:

Hypothesis 1: There is a positive relationship between male CEO and leverage.

2.1.2 CEO Education with Capital Structure

CEO education has been shown to have a significant impact on overall business success and risk-taking behaviour. This characteristic influences capital structure decisions (King et al., 2016). CEO educational background is every other non-public indicator employed on this examine. Many studies have found a relationship between CEO economic education and their company's overall economic

performance (Barber and Odean, 2001). The CEO is aware of and responds to economic concerns in the selection of a company. The CEO's specialised commercial business training and command of his field have a propensity to boost the company's economic overall success.

Given the preceding conceptual approaches, it would be fascinating to look at how CEO financial activities affect the relationship between CEO qualities and firm success. Another personal factor addressed in this study is CEOs' educational backgrounds in order to determine the impact of their demographic capabilities on their financing decisions and company success. The ability of CEOs to enhance financial and funding decisions in their organizations is aided by their education. The financial education of CEOs has been linked to their overall economic performance in numerous studies. Many studies have shown a link between CEO economic training and investment choices (Barber and Odean, 2001; Buyl et al., 2011) .

In addition, fiscal knowledge for CEOs has a significant influence on a company's overall economic performance. Applicable education is critical to one's success in any field. Financial training for CEOs aids them in understanding economic issues and presenting themselves as they should to ensure a company's success. Bertrand and Schoar (2003), claim that Corporations with CEOs that have a certain business academic background outperform their peers in terms of overall economic success. CEOs' formal education has an impact on their investing strategies and the financial health of their companies.

CEOs who have received formal education according to King et al. (2016), in order to retain a strong economic function in the market, are far more inclined to employ more modern commercial company methods. (Buyl et al., 2011) have established a relationship between CEO financial education and their firms' overall economic performance). CEOs can see a range of financial concerns and act in the company's best interests because of their financial experience. Bertrand and Schoar (2003) revealed that firms with CEOs that have a certain business education background had a much higher chance of succeeding.

As a result, according to previous study, CEO characteristics have a significant influence on financial reporting quality. The present CEO literature, which focuses

primarily on internal attributes of CEOs, has benefited from such studies. To learn more about the influence of CEO traits on business success and financial reporting quality, such as real profit control and profit projections, as well as an analysis of CEO characteristics in connection to financial statement fraud in emerging nations. Therefore, we propose the following hypotheses:

Hypothesis 2: There is a positive relationship between CEO education and leverage.

2.1.3 Audit Committee Size with Capital Structure

An audit committee, according to Diri (2018), is a subset of the board of directors that is dominated by non-executive directors. As most regulations emphasise, the audit committee plays a critical role in corporate governance. The audit committee is responsible for assisting the board and inspiring the establishment of an effective internal control structure to improve financial report transparency and quality. The audit committee's goal is to protect shareholders' interests by conducting unbiased and objective assessments, monitoring, and inspections of the company's various measures and policies.

Additional tasks of the audit committee include evaluating the scope and accuracy of external audits (Agoes and Ardana, 2011). The audit committee should contain at least one independent board commissioner and at least one participant who is not linked with the company or public commercial organisation, according to the Forum for Corporate Governance (FCGI, 2001). With the purpose of serving the interests of shareholders and other interested parties while also operating efficiently, the audit committee is renamed the monitoring committee.

The audit committee's diverse qualities, on the other hand, play a part in determining profit management behaviour. The independence of the committee members, their expertise of economics and governance, and the increasing frequency of meetings all contribute to earnings management (Diri, 2018). In the past, the presence of an audit committee has been demonstrated to have a negative impact on the use of leverage (Handayani et al., 2016). On the other side, the findings of Handayani et al. (2016) contradict those of Marpaung and Latrini (2014).

The audit committee obligations related to the fine of the economic statements. The characteristic of the audit committee is important to persuade the company earnings as one of the essential facts that is available to the general public and utilized by investors to assess the organization. The size of an audit committee is an crucial device in the implementation of proper company governance. (Muhtar, et al 2014).

Therefore, we propose the following hypotheses:

Hypothesis 3: There is a positive relationship between audit committee size and leverage.

2.1.4 Remuneration with Capital Structure

The best managerial reimbursement structures depend on no longer simplest the commercial enterprise business enterprise relationship amongst shareholders and management, but additionally the conflicts of interests which arise in the different contracting relationships for which the company serves as a nexus. (Jensen and Murphy, 1990) with company concept said that negative relationship is derived in his study among remuneration and leverage.

Agency concept posits that there is a problem in terms of the relationship between the owners of corporation, the principals, their supervisor, and the agent (Jensen and Meckling 1976). Conflict of interest paperwork while each events try to maximize their personal interest on the cost of the others'. The proprietor aims for the corporation to have the best cost viable whilst the supervisor is greater worried with luxury perks and remuneration.

Therefore, the predominant desires to shield their interest and funding with the aid of using imposing suitable moves to govern agent conduct, incurring tracking charges to restrict beside the point conduct in their agent. Requiring the supervisor to disclose their perks and remuneration is one motion to make sure that the supervisor does now no longer misappropriate the employer's assets and expropriate shareholders' wealth through excessive reimbursement.

Signaling concept become posited with the aid of using Spence (1973) to consciousness at the extraordinary conduct in the exertions marketplace, with the last goal

of inspecting communication among extraordinary events. It is primarily based totally on the general assumption of statistics asymmetry in which managers have a tendency to reveal greater economic statistics to offer a sign to investors and market (Ross, 1977).

This concept argued that statistics disclosed by the corporations might also additionally reduce information asymmetry and is assumed as an amazing sign with the aid of using market analyst. Therefore, signaling concept is an crucial mechanism to offer beneficial statistics, together with directors' remuneration to the shareholders at the destiny prospect of the corporations. Therefore, we propose the following hypotheses:

Hypothesis 4: There is a negative relationship between remuneration and leverage.

2.1.5 Board meetings with Capital Structure

Some academics, on the other side, feel that board meetings are ineffective because non-executives spend so little time with the firm, and that this time might be better spent on a more substantial shift in management mindset. According to a research done by Johl in the United Kingdom, the frequency of board meetings and entrepreneurial actions in firms have a negative connection. As a result, we provide the following possibilities. Because the board of directors plays such an essential role in corporate governance, it is regarded as such. To guarantee that managers serve the interests of shareholders, it has been proposed that the board of directors advise, oversee, and hold management accountable.

According to the agency, the more conscientiousness the board shows in carrying out its duties, the more control it will have and the higher the degree of monitoring will be. According to the paper, running out of time while fulfilling board responsibilities might be a significant impediment to the board's performance. In this way, holding regular meetings allows the board to carry out its responsibilities consistently while taking into account the interests of the shareholders.

The entire performance of BM and the company is reported in a European international locations examination. According to 24 performances that is related to

green control exercises of the company, which might be much less in all likelihood affected by the BM's held with the aid of using the board. Similarly eleven reviews an inverse relationship of variety of board meetings with the firm overall performance. Similarly because of the inconsistent findings in the literature wherein distinct researchers observed mixed outcomes of board size, board meetings with overall performance. Therefore, we propose the following hypotheses:

Hypothesis 5: There is a negative relationship between board meetings and leverage.

2.1.6 Firm Size with Capital Structure

Mixed results have been discovered in research on the link between firm size and profitability. Jonsson (2007), Serrasqueiro (2008), Stierwald (2009), Saliha and Abdessatar (2009), all found a favourable link between business size and profitability. Banchu (2012), on the other hand, discovered an adverse relationship between business size and profitability. Aside from the studies mentioned above, Whittington (1980) discovered that firm size has no bearing on profitability. These findings lead to an unclear understanding of the impact of business size on profitability, as well as an increase in interest in the subject. A. G. Awan and Amin (2014) used panel data techniques on textile firms in Pakistan from 2006 to 2012. This study discovered that firm size has a negative impact on debt ratio. Bassey (2014) investigated the determinants of 28 allied firms in Nigeria from 2005 to 2010, using OLS, and concluded that size has a negative relationship with LEV. Therefore, we propose the following hypotheses:

Hypothesis 6: There is a negative relationship between firm size and leverage.

Chapter 3

Research Methodology

3.1 Data Description

Non probability sampling scheme is used in this study and results collected by using different economic groups. Initially, in the manufacturing sector, ten of the largest companies from various sectors of the Pakistani economy were chosen based on their contributions to total GDP and market share in the KSE30. Secondly, 11 companies from Information, Communication and transport Services industry selected from non-manufacturing sectors and their data selected from 2009 to 2019. This research aims to explore factors affecting capital structure (CS) and influence after financial crisis (2008) for 51 non-financial firms. These firms have been listed at Pakistan Stock Exchange. Debt to asset (DTA) and Debt to equity (DTE) are the determinants of CS. This research included Pakistani Non-Financial Companies such as manufacturing, cement, textile, sugar, fertilizer, Information, Communication and transport Services. The sample period comprises of 10 years from 2009 to 2019. This samples used as study to see the results after financial crises that is why used 2009 to 2019.

Panel data were used in this study and were collected for ten years, from 2009 to 2019. Firms with missing financial data aren't included in the sample because they can't serve the study's goal, and all proxies can't be applied to missing data. In overall sector's data I used data trimming and in sector wise data used by winsorizing it because of outliers as they are two ways to deal with outliers in

OLS-regression Lusk, Halperin and Heilig (2010). Ceo Gender and Ceo education used as dummy variable in the study. For ceo gender if male then 1 and for female 0. For ceo education if the ceo is finance literate than 1 otherwise 0. Non-financial companies are used only for analysis since the closing year of these firms is end of June 30th. Financing Structure might vary in the form of Pakistani non-financial firms and financial sector firms. Microsoft excel has been used for data collection and variables calculation and the statistical software Eviews 9.0 has been used for multiple regression and correlation.

3.2 Sources of Data

This research has collected data for independent and dependent variables from the financial statements of the companies and used for testing and analysis. These companies have been carefully chosen on the basis of maximum available data of 10 years for each firm. Following reliable sources has been used collection of data:

1. Business recorder
2. State Bank of Pakistan
3. Companies

3.3 Variables

3.3.1 Dependent Variable Leverage

In this research Leverage (debt) is the dependent variable. This variable is calculated as Total Debt divided by Total Assets (TDTAR). Mirza, Rehman and Xianzhi, (2016) and Amjed (2016) and Titman and Wessels (1988) have tested and provide empirical evidences.

It shows that how many assets can be financed through debt. Financial risk of firm can be determined through leverage Sogorb-Mira (2005). Brievely, if debt having greater than 1 ratio, it is measured that companies devise issues to pay back the credit and inverse (vice versa). Debt is the main component of capital structure for financing the business operations.

3.3.2 Independent Variables

Five independent variables such as AUDIT COMMITTEE SIZE, BOARD MEETINGS, CEO EDUCATION, CEO GENDER and REMUNERATION have been used to distinguish between ways of Pakistani non-financial firms. This research has analysed changes in determinants of capital structure. These independent variables have been explained in the table (3.2)

3.3.3 Control Variables

Firm size used as control variable in the study.

3.3.4 Dummy Variables

A numerical variable is called dummy variable. It is used in the regression analysis to present sub-group of the sample. In this thesis ceo's education and ceo's gender treated as a dummy variable. Dummy variable is used to differentiate each period for innumerable treatments. Through usage of dummy variables, we can apply single regression equation to denote several groups. It means we didn't have to put out a different equation for each sub-group. These dummy variables operate as switches in an equation, turning certain values on and off.

3.4 Econometric Model for Determinants of Capital Structure

The general equation for the model is:

$$CS_{i,t} = \alpha_{i,t} + \beta BODcharacteristics_{it} + \beta CV_{i,t} + \mu_{i,t} \quad (3.1)$$

While equation for Sector Wise is:

$$CS_{jit} = \alpha_{jit} + \beta BODcharacteristics_{jit} + \beta CV_{jit} + \mu_{jit} \quad (3.2)$$

3.4.1 Measurement of Variables

Whereas CS= Capital Structure (Debt to equity ratio, Debt to asset ratio) are taken as an indicator of capital structure and used as dependent variable in this study. The link (absolute or relative) between total external capital and total capital structure is referred to as capital structure (Riyanto, 1999). The capital structure variable is used as an intervening variable in the empirical model and is computed using the following formula: The following are the indicators of CS and will be calculated by following formulas listed below:

$$\text{Debt to asset} = \frac{\text{Total debt}}{\text{Total assets}} \quad (3.3)$$

$$\text{Debt to Equity ratio} = \frac{\text{Total Liabilities}}{\text{Total shareholders equity}} \quad (3.4)$$

Whereas board of director's characteristics (CEO gender, CEO education, audit committee size, remuneration and number of meetings) are used as explanatory variables, whereas the proxies of firm size are employed as control variable.

3.5 Estimation Techniques

In general, regression analysis estimates panel data through Ordinary Least Square (OLS). This regression gives best linear unbiased results. Panel data is a combination of cross sections and time series, where the same unit cross section is measured at different intervals. In other words, panel data is data from some of the same individuals observed in a certain period of time. T time periods such as (T = 1, 2,3,4,5..., T) and N is the number of individuals (I = 1, 2, 3, 4, 5 ..., N). If the total unit time for each individual is the same, the data is called balanced panel. An unbalanced panel is one in which the number of time units is varied for each member.

Two further categories of data are time-series and cross-section data. One or more variables will be observed on one observation unit over a period of time in a time series. The observation of several units of observation in a single point of time is

known as data cross-section. This work also applies Panel data. There are three models of Panel data. These models have been applied on the study for analysis. Assumptions of every model are varying from each other regarding the intercept. Common Coefficient Effect Model (CCM) is the first model and having persistent intercept in whole time period and cross section. Fixed Effect Model (FEM) is the second model. This refers whole cross sections are varying for the intercept. Random Effect Model (REF) is the third model. This show whole cross section and random over time is changing for intercept.

How to decide two different tests may be used out of these three models for application in panel data analysis. Fixed Effect Model (FEM) test is applied to detect out of two models of the Common Coefficient Model (CCM) and Random Effect Model (REM) can be applied. If the answer is significant in the case of this test, then (FEM) is used. If the answer is in significant then (CCM) will be used.

H0: CEM is appropriate.

H1: FEM is appropriate.

If the response is insignificant ($P > 0.05$), then state null hypothesis, and if response is in significant ($P < 0.05$) then apply fixed effect model. Hausman Test is used for Fixed Effect Model (FEM) and Random Effect Model (REM). If the outcome of this test has significant values ($P < 0.05$), then (FEM) is used and in case of insignificant ($P > 0.05$), REM should be used for data analysis.

H0: REM is relevant.

H1: FEM is relevant.

3.6 Methodology

Top positions of management teams in businesses, the CEO is one of the most significant players in the corporate. They may assist businesses to actively pursue opportunities, manage the structures and strategies of businesses, and so on. CEOs make critical and strategic decisions that affect their companies' performance. This study will follow the methodology of KSE30, and this study follows an unbalanced

data. In manufacturing sector Textile, Cement, Sugar, and Fertilizers and in non-manufacturing Information, Communication and transport Services selected for this study which constitutes panel data. This study will follow this methodology because our objective is to check whether the determinants of capital structure follow the same theories across industries or are they different from each other.

Chapter 4

Results and Discussion

4.1 Descriptive Statistics

TABLE 4.1: Descriptive Statistics

	ACS	BM	CEO_EDU	CEO_GEN	LOG_FS	LOG_REM
Mean	3.598655	5.730942	0.484305	0.979821	3.145944	18.46199
Median	3.000000	5.000000	0.000000	1.000000	3.151122	18.52295
Maximum	9.000000	35.00000	1.000000	1.000000	3.260798	22.56546
Minimum	2.000000	2.000000	0.000000	0.000000	2.804488	12.47323
Std. Dev.	0.878148	3.035266	0.500315	0.140771	0.062523	1.813304
Skewness	1.870421	5.403956	0.062811	-6.824672	-0.59788	-0.324727
Kurtosis	8.058191	46.84307	1.003945	47.57615	4.040626	3.194246
Jarque-Bera	735.5132	37891.89	74.33362	40387.86	46.69552	8.539469
Observations	446	446	446	446	446	446

Table 4.1 shows the descriptive statistics of all variable which are used in this study, the average value of ACS are 3.404878 and median value is 3. The maximum and minimum values vary between 2 and 5 and the standard deviation is 0.639374. The mean value of BM is 5.336585 and having median value of 4. The maximum and minimum value of BM which is independent variable in our study is 3 and 15 respectively and the standard deviation is 2.227035. The average value of the Ceo gender is 0.970732 which vary between the maximum and minimum range of 0 to 1 in the study used as dummy variable with standard deviation 0.168970. While median value is 1. The average value of debt to asset which used as dependent variable with the median value of 0.475179. The maximum and minimum of 0.149327 and 0.765482 respectively and standard deviation is 0.171209. Debt

to equity also used as dependent variable in this study with a median value of 1.298427 and mean value is 1.403799. Maximum and minimum value is from 0.202619 to 3.264057 respectively with standard deviation of 0.819142.

The mean value of ceo education is 0.804878 and median value is 1.000000. The maximum and minimum values are 0 and 1 which also used as dummy variable in the study and the standard deviation is 0.397265. Remuneration have the average value 18.47482 and having median value of 18.48336. The maximum and minimum values are 16.42976 and 20.76535 and standard deviation value is 0.999784. The outliers exists in remuneration and the maximum value of remuneration was 6310339000 and the company was FFC in 2017. The mean value FS which is control variable in the study is 23.29226 and median value is 23.30447. The maximum and minimum values varies between 25.14713 and 21.18950 and the standard deviation 0.967434.

4.2 Correlation Matrix Analysis

TABLE 4.2: Correlation Analysis

	DTA	DTE	ACS	BM	EDUC	FS	LOG_REM
DTA	1						
DTE	0.850680	1					
ACS	0.054180	0.055431	1				
BM	0.044901	0.046016	-0.144371	1			
EDUC	0.021319	-0.049941	-0.169925	-0.047298	1		
FS	-0.024456	-0.043921	0.157063	0.141682	-0.121635	1	
LOG.REM	-0.379676	-0.31912	0.140677	-0.068155	0.020246	0.361065	1

Table 4.2 shows the relationship among variables. Pearson correlation test adopted to explain the direction and strength of the relationship. ACS, BM and EDUC shows the positive relationship with debt to asset ratio. While FS and REM shows negative relation with DTA. ACS BM are showing positive relation with DTE while EDUC, FS and REM are negative relation with DTE. ACS showing positive relation with FS and REM while negative with EDUC and BM. BM showing positive relation with FS and negative with REM and EDUC. EDUC showing positive with REM while negative with FS. FS shows positive relationship with REM.

4.3 Random Effects - Hausman Test

The hausman test is applied to decide between fixed effect and random effect model. The p-value of cross-section random is (0.0366), which indicating that fixed effect model would be used.

TABLE 4.3: Hausman Test DTA

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	13.439808	6	0.0366

4.4 Fixed Effect Regression

The regression model was estimated using Panel data. To determine whether a fixed or common effect model be used the Redundant Fixed Effect Model Test is used. The results of redundant fixed effect test shows p-value of cross-section F and Chi- square is (0.0000). Which is less than 0.05, which indicate that fixed effect model is appropriate.

4.4.1 Effect of Variables on Debt to Asset Ratio

TABLE 4.4: Fixed Effect Regression (DTA)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.159668	0.395945	7.98007	0.0000
ACS	0.018836	0.01582	1.190641	0.2353
BM	-0.002557	0.004225	-0.605101	0.5458
CEO_GEN	-0.110625	0.043584	-2.538191	0.0119
EDUC	0.125277	0.038608	3.244844	0.0014
FS	-0.042643	0.018379	-2.320236	0.0214
LOG_REM	-0.093829	0.012342	-7.602594	0.0000
R-squared	0.779281	Durbin-Watson stat		1.324703
Adjusted R-squared	0.737461			
F-statistic	18.634			
Prob(F-statistic)	0.0000			

The regression analysis of the equation, shown in the table above (4.4), shows that some of the variables are significant in relation to the independent variable,

which is the book debt to asset ratio, in this study. R-square value is 77% it shows strong descriptive power of this model. The adjusted R-square value is 73% and indicates variation occurred in dependent variable due to independent variable in the presence of a set of control variables. The Durbin Watson test is a statistical test that demonstrates that autocorrelation between sets of data. If it's between 1.5 and 2, which means the data doesn't have any auto correlation. ACS shows an insignificant relationship with DTA, the coefficient value of ACS is (0.018836) and p-value is (0.2353) shows insignificant positive relationship with DTA. It shows ACS of the company will never effect DTA. According to several studies, the audit committee's experience and profitability have an inverse or inconsequential relationship (Amer et al, 2014; Glover-Akpey and Azembila, 2016). BM also has the insignificant relationship with DTA with coefficient value of (-0.002557) and p-value of (0.5458). There is supposed to be negative relationship between board meetings and leverage. Researcher investigated that the relationship negative in developing countries. (Ntim and Oseit 2011; Johl et al. 2015)

The coefficient value of CEO Gender is (-0.110625) and p-value is (0.00119).The Ceo gender shows significant negative relationship with DTA. According to the majority of studies, female directors are more financially illiterate than male directors. Men are more self-assured and risk-tolerant, whereas women are the polar opposite (Huang and Kisgen, 2013). It shows that firms with larger number of male ceo's size of debt level decreases.

The coefficient value of EDUC is (0.125277) and p-value is (0.0014) EDUC shows significant positive relationship on the debt value of company and it supposed to be positive CEOs' finance .They are more eager to take chances as a result of their education levels. Higher-educated executives will have more sophisticated cognitive talents. (Wally and Baum, 1994). This means that firms having more finance literate ceo's need less amount of debt.

The coefficient value of FS which represents size of the firm, is (-0.042643) and p-value is (0.0214).The FS shows negative relation with DTA but the relation is significant and it supposed to be negative according to our hypothesis Banchuen-vijit (2012) discovered that the size of a firm has an adverse correlation with its profitability. The result shows that firms that have growth opportunity less rely

on debt. The coefficient value of REM is (-0.093829) and p-value is (0.0000) remuneration, in the study also shows significant negative relation with DTA. There is significant negative relationship between remuneration of board of directors with DTA. It may be due to the fact that if remuneration is high the more concentration is towards capital structure and for that purpose equity is issued. In the study of Ahmad and Afza showed that capital structure negatively affects the accounting performance of the non-financial firms of Pakistan. (Ahmad and Afza, 2019). Moreover, the CEO compensation has a negative impact on capital structure. This finding implies that when CEOs are highly compensated, they rely on less debt (Wen et al., 2002).

4.5 Effect of Variables on Debt to Equity DTE

4.5.1 Hausman Test DTE

TABLE 4.5: Hausman Test DTE

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	11.898642	6	0.0643

4.5.2 Random Effects

TABLE 4.6: Random Effects DTE

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	12.31647	1.55705	7.910114	0
ACS	-0.00675	0.07237	-0.09322	0.9258
BM	-0.03318	0.0188	-1.76546	0.0789
CEO_GEN	-0.55041	0.24499	-2.24665	0.0257
EDUC	0.214815	0.14797	1.45172	0.148
FS	-0.12627	0.07027	-1.79691	0.0737
LOG_REM	-0.40305	0.04934	-8.16974	0
R-squared	0.306806	Durbin-Watson stat		1.04758
Adjusted R-squared	0.287639			
F-statistic	16.00726			
Prob(F-statistic)	0			

The regression analysis of the equation, shown in the table above (4.7), shows that some of the variables are significant in relation to the independent variable, which is the book debt to equity ratio, in this study. R-square value is 30% it shows strong descriptive power of this model. The adjusted R-square value is 28% and indicates variation occurred in dependent variable due to independent variable in the presence of a set of control variables. The Durbin Watson test is a statistical test that demonstrates that autocorrelation between sets of data. If it's between 1.5 and 2, which means the data doesn't have any auto correlation.

ACS shows an insignificant relationship with DTE, the coefficient value of ACS is (-0.006747) and p-value is (0.9258) shows insignificant negative relationship with DTE. It shows ACS of the company will never effect DTE. According to several studies, the audit committee's experience and profitability have an inverse or inconsequential relationship (Amer et al, 2014; Glover-Akpey and Azembila, 2016). BM also has the insignificant relationship with DTE with coefficient value of (-0.033184) and p-value of (0.0789). There is supposed to be negative relationship between board meetings and leverage. Researcher investigated that the relationship negative in developing countries. (Ntim and Oseit 2011; Johl et al. 2015)

The coefficient value of CEO Gender is (-0.550406) and p-value is (0.0257).The CEO gender shows significant negative relationship with DTE. Most of the literature notes that female directors are more risk- averse than male directors. Men are more self-assured and risk-tolerant, whereas women are the total opposite (Huang and Kisgen, 2013). It shows that firms with larger number of male CEO's size of debt level decreases.

The coefficient value of EDUC is (0.214815) and p-value is (0.1480) EDUC shows insignificant positive relationship on the debt value of company Gottesman and Morey (2010) used evidences from the US firms and findings indicate no significant relationship. This means that firms having more financed literate ceo's no effect on amount of debt. The coefficient value of FS which represents size of the firm, is (-0.126265) and p-value is (0.0737).The FS shows negative relation with DTE but the relation is insignificant and it supposed to be negative according to our hypothesis. Banchuenvijit (2012) discovered that the size of a firm has an

adverse correlation with its profitability. The result shows that firms that have growth opportunity less rely on debt. The coefficient value of REM is (-0.403053) and p-value is (0.0000) remuneration, in the study also shows significant negative relation with DTE. (Chen et al., 2011; Conyon, 2013; Doucouliagos et al., 2012), but the current study considers both frameworks (pay-for-performance and performance pay) for CEOs/boards of directors, as well as how their compensation and characteristics affect performance and vice versa. There is significant negative relationship between remuneration of board of directors with DTE. It may be due to the fact that if remuneration is high the more concentration is towards capital structure and for that purpose equity is issued. In the study of Ahmad and Afza showed that capital structure negatively affects the accounting performance of the non-financial firms of Pakistan. (Ahmad and Afza, 2019). Moreover, the CEO compensation has a negative impact on capital structure. This finding implies that when CEOs are highly compensated, they rely on less debt (Wen et al., 2002).

4.6 DTA Textile

4.6.1 DTA Hausman Textile

TABLE 4.7: DTA Hausman Textile

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	7.725938	4	0.1021

The regression model was estimated using Panel data. To determine whether a fixed or common effect model be used the Hausman Test is used. The results of Hausman test shows p-value of cross-section is (0.1021). Which is more than 0.05, which indicate that random effect model is appropriate.

4.6.2 DTA Random Model Textile

The regression analysis of the equation, shown in the table above (4.10), shows that some of the variables are significant in relation to the independent variable,

which is the book debt to asset ratio, in this study. R-square value is 59% it shows strong descriptive power of this model. The adjusted R-square value is 57% and indicates variation occurred in dependent variable due to independent variable in the presence of a set of control variables. The Durbin Watson test is a statistical test that demonstrates that autocorrelation between sets of data. If it's between 1.5 and 2, which means the data doesn't have any auto correlation. ACS shows an insignificant relationship with DTA, the coefficient value of ACS is (0.166185) and p-value is (0.3507) shows insignificant positive relationship with DTA. It shows ACS of the company will never effect DTA. According to several studies, the audit committee's experience and profitability have an inverse or inconsequential relationship (Amer et al, 2014; Glover-Akpey and Azembila, 2016). BM also has the insignificant relationship with DTA with coefficient value of (0.074114) and p-value of (0.1962). There is supposed to be positive relationship between board meetings and leverage. Researcher investigated that the relationship negative in developing countries. (Ntim and Oseit 2011; Johl et al. 2015)

TABLE 4.8: DTA Random Model Textile

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	26.58691	2.304071	11.5391	0.0000
ACS	0.166185	0.177293	0.937343	0.3507
BM	0.074114	0.056981	1.300687	0.1962
FS	-1.127783	0.091489	-12.327	0.0000
LOG_REM	-0.180788	0.054951	-3.290015	0.0014
R-squared	0.593292	Durbin-Watson stat		0.641056
Adjusted R-squared	0.577798			
F-statistic	38.29258			
Prob(F-statistic)	0.00000			

The coefficient value of FS which represents size of the firm, is (-1.127783) and p-value is (0.0000).The FS shows negative relation with DTA but the relation is significant and it supposed to be negative according to our hypothesis. Banchuenvijit (2012) discovered that the size of a firm has a negative relationship with its profitability. The result shows that firms that have growth opportunity less rely on debt. The coefficient value of REM is (-0.180788) and p-value is (0.0014) remuneration, in the study also shows significant negative relation with DTA. (Chen et al., 2011; Conyon, 2013; Doucouliagos et al., 2012), but the current study considers

both frameworks (pay-for-performance and performance pay) for CEOs/boards of directors, as well as how their compensation and characteristics affect performance and vice versa. There is significant negative relationship between remuneration of board of directors with DTA. It may be due to the fact that if remuneration is high the more concentration is towards capital structure and for that purpose equity is issued. In the study of Ahmad and Afza showed that capital structure negatively affects the accounting performance of the non-financial firms of Pakistan. (Ahmad and Afza, 2019). Moreover, the CEO compensation has a negative impact on capital structure. This finding implies that when CEOs are highly compensated, they rely on less debt (Wen et al., 2002).

4.7 Effects on Variable with Debt to Equity Random Approach (Textile)

4.7.1 DTE Hausman (Textile)

TABLE 4.9: DTE Hausman (Textile)

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	8.534636	4	0.074

4.7.2 Random Model DTE (Textile)

TABLE 4.10: Random Model DTE (Textile)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.610401	10.06354	0.35876	0.7205
ACS	0.039825	0.78611	0.050661	0.9597
BM	0.014966	0.278822	0.053678	0.9573
FS	-0.09977	0.384133	-0.259729	0.7956
LOG_REM	0.065489	0.111508	0.587309	0.5583
R-squared	0.008377	Durbin-Watson stat		1.32355
Adjusted R-squared	-0.029399			
F-statistic	0.221753			
Prob(F-statistic)	0.925755			

ACS shows an insignificant relationship with DTE, the coefficient value of ACS is (0.039825) and p-value is (0.9597) shows insignificant positive relationship with DTE. It shows ACS of the company will never effect DTE. According to several studies, the audit committee's experience and profitability have an inverse or inconsequential relationship (Amer et al, 2014; Glover-Akpey and Azembila, 2016). BM also has the insignificant relationship with DTE with coefficient value of (0.014966) and p-value of (0.9573). There is supposed to be positive relationship between board meetings and leverage. Researcher investigated that the relationship negative in developing countries. (Ntim and Oseit 2011; Johl et al. 2015)

The coefficient value of FS which represents size of the firm, is (-0.099770) and p-value is (0.7956).The FS shows negative relation with DTE but the relation is insignificant and it supposed to be negative according to our hypothesis. Banchuenvijit (2012) discovered that the size of a firm has a negative relationship with its profitability. .The result shows that firms that have growth opportunity less rely on debt. The coefficient value of REM is (0.065489) and p-value is (0.5583) remuneration, in the study also shows insignificant positive relation with DTA. All performance measures are not significantly associated with board of director cash base salary, which appears to contradict agency theory (Fernandes, 2008).

4.8 DTA Sugar Sector

4.8.1 DTA Hausman Sugar Sector

TABLE 4.11: DTA Hausman Sugar Sector

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	10.265805	4	0.0362

4.8.2 DTA Fixed Effect Model Sugar Sector

The regression analysis of the equation, shown in the table above (4.15), shows that some of the variables are significant in relation to the independent variable, which is the book debt to asset ratio, in this study.

R-square value is 66% it shows strong descriptive power of this model. The adjusted R-square value is 62% and indicates variation occurred in dependent variable due to independent variable in the presence of a set of control variables.

The Durbin Watson test is a statistical test that demonstrates that autocorrelation between sets of data. If it's between 1.5 and 2, which means the data doesn't have any auto correlation. ACS shows an insignificant relationship with DTA, the coefficient value of ACS is (-0.098981) and p-value is (0.0650) shows insignificant negative relationship with DTA. It shows ACS of the company will never effect DTA.

TABLE 4.12: DTA Fixed Effect Model Sugar Sector

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.358911	1.13948	2.947757	0.0041
ACS	-0.098981	0.052955	-1.869154	0.065
BM	-0.019962	0.009484	-2.104867	0.0383
FS	-0.134804	0.044982	-2.996863	0.0036
LOG_REM	0.036582	0.032591	1.122438	0.2648
R-squared	0.667113	Durbin-Watson stat		0.886525
Adjusted R-squared	0.620117			
F-statistic	14.19517			
Prob(F-statistic)	0			

According to several studies, the audit committee's experience and profitability have an inverse or inconsequential relationship (Amer et al, 2014; Glover-Akpey and Azembila, 2016). BM has the significant relationship with DTA with coefficient value of (-0.019962) and p-value of (0.0383). More engaged boards, according to Lipton and Lorsch (1992), can enhance judgement and transparency, implying a favourable association between board meeting frequency and company success.

The coefficient value of FS which represents size of the firm, is (-0.134804) and p-value is (0.0036). The FS shows negative relation with DTA but the relation is significant and it supposed to be negative according to our hypothesis. It's also worth noting that firm size, as defined by the number of employees, was introduced as a control variable with a favourable impact on profitability (Simerly and Li, 2000; Abor 2005). The coefficient value of REM is (0.036582) and p-value is (0.2648) remuneration, in the study also shows insignificant positive relation with

DTA. All performance measurements are unrelated to the monetary base salary of the board of directors, which appears to contravene agency theory (Fernandes, 2008).

4.9 DTE Sugar Sector

4.9.1 DTE Hausman Sugar Sector

TABLE 4.13: DTE Hausman Sugar Sector

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	4.215728	4	0.3776

4.9.2 Random Model Effect DTE (Sugar)

TABLE 4.14: Random Model Effect DTE (Sugar)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	18.39272	9.057009	2.030771	0.0451
ACS	-1.148323	0.469945	-2.443524	0.0164
BM	-0.111158	0.083219	-1.335732	0.1849
FS	-0.54366	0.371771	-1.462353	0.147
LOG_REM	0.028825	0.275269	0.104715	0.9168
R-squared	0.092097	Durbin-Watson stat		1.04636
Adjusted R-squared	0.053048			
F-statistic	2.358468			
Prob(F-statistic)				

ACS shows a significant relationship with DTE, the coefficient value of ACS is (-1.148323) and p-value is (0.0164) shows significant negative relationship with DTE. It shows ACS of the company will effect DTE. According to several studies, the audit committee's experience and profitability have an inverse or inconsequential relationship (Amer et al, 2014; Glover-Akpey and Azembila, 2016). BM has the insignificant relationship with DTE with coefficient value of (-0.111158) and p-value of (0.1849). There is supposed to be negative relationship between board meetings and leverage. Researcher investigated that the relationship negative in developing countries. (Ntim Oseit 2011; Johl et al. 2015)

The coefficient value of FS which represents size of the firm, is (-0.543660) and p-value is (0.1470). The FS shows negative relation with DTE but the relation is insignificant and it supposed to be negative according to our hypothesis. Banchuenvijit (2012) has found a negative relation between firm size and profitability. The result shows that firms that have growth opportunity less rely on debt. The coefficient value of REM is (0.028825) and p-value is (0.9168) remuneration, in the study also shows insignificant positive relation with DTE. All performance measures are not significantly associated with cash base remuneration of board of directors that seem inconsistent with the views of agency theory (Fernandes, 2008).

4.10 Cement Sector

4.10.1 DTA Hausman Cement

TABLE 4.15: DTA Hausman Cement

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	3.241633	4	0.5182

4.10.2 DTA Random Model Cement

TABLE 4.16: DTA Random Model Cement

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.765774	0.77309	2.284043	0.0246
BM	0.00186	0.00269	0.691515	0.4909
FS	0.057743	0.04156	1.389449	0.168
LOG_REM	-0.14579	0.02203	-6.61801	0.0000
ACS	-0.00591	0.01824	-0.32395	0.7467
R-squared	0.493956	Durbin-Watson stat		1.27248
Adjusted R-squared	0.472422			
F-statistic	22.93864			
Prob(F-statistic)	0.0000			

The regression analysis of the equation, shown in the table above (4.21), shows that some of the variables are significant in relation to the independent variable,

which is the book debt to asset ratio, in this study. R-square value is 49% it shows strong descriptive power of this model. The adjusted R-square value is 47% and indicates variation occurred in dependent variable due to independent variable in the presence of a set of control variables. The Durbin Watson test is a statistical test that demonstrates that autocorrelation between sets of data. If it's between 1.5 and 2, which means the data doesn't have any auto correlation.

ACS shows an insignificant relationship with DTA, the coefficient value of ACS is (-0.005908) and p-value is (0.7467) shows insignificant negative relationship with DTA. It shows ACS of the company will never effect DTA. According to several studies, the audit committee's experience and profitability have an inverse or inconsequential relationship (Amer et al, 2014; Glover-Akpey and Azembila, 2016). BM has the insignificant relationship with DTA with coefficient value of (0.001860) and p-value of (0.4909). More engaged boards, according to Lipton and Lorsch (1992), can improve judgement and transparency, implying a favourable association between board meeting intensity and firm success.

The coefficient value of FS which represents size of the firm, is (0.057743) and p-value is (0.1680).The FS shows negative relation with DTA but the relation is significant and it supposed to be negative according to our hypothesis. It's also worth noting that firm size, as defined by the number of employees, was introduced as a control variable with a favourable impact on profitability (Simerly and Li, 2000; Abor 2005).

The coefficient value of REM is (-0.145789) and p-value is (0) remuneration, in the study shows significant negative relation with DTA. The inverse relation shows that if remuneration of board is high, they go for equity issuance for improved capital structure. There is significant negative relationship between remuneration of board of directors with DTA. It may be due to the fact that if remuneration is high the more concentration is towards capital structure and for that purpose equity is issued. In the study of Ahmad and Afza showed that capital structure negatively affects the accounting performance of the non-financial firms of Pakistan. (Ahmad and Afza, 2019). Moreover, the CEO compensation has a negative impact on capital structure. This finding implies that when CEOs are highly compensated, they rely on less debt (Wen et al., 2002).

4.11 DTE Hausman Cement

TABLE 4.17: DTE Hausman Cement

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	3.016653	4	0.555

4.11.1 DTE Random Model Cement

The regression analysis of the equation, shown in the table above (4.24), shows that some of the variables are significant in relation to the independent variable, which is the debt to equity ratio, in this study. R-square value is 50%. The adjusted R-square value is 48% and indicates variation occurred in dependent variable due to independent variable in the presence of a set of control variables. The Durbin Watson test is a statistical test that demonstrates that autocorrelation between sets of data. If it's between 1.5 and 2, which means the data doesn't have any auto correlation but here durbin Watson value is 0.86. ACS shows a insignificant relationship with DTE, the coefficient value of ACS is (0.043147) and p-value is (0.6191) shows insignificant positive relationship with DTE. It shows ACS of the company will never effect DTE. Earlier studies documented that the size of the audit committee has a significant impact on firms' performance in terms of profitability (Aldamen, Duncan, Kelly, McNamara, and Nagel,2012; Detthamrong et al., 2017). BM has the insignificant relationship with DTE with coefficient value of (0.003867) and p-value of (0.7499). There is supposed to be negative relationship between board meetings and leverage. Researcher investigated that the relationship negative in developing countries. (Ntim and Oseit 2011; Johl et al. 2015).

The coefficient value of FS which represents size of the firm, is (0.014907) and p-value is (0.9041).The FS shows negative relation with DTE but the relation is significant and it supposed to be negative according to our hypothesis. Ibhagui and Olokoyo (2018) that the financial performance decreases with the rise of firm size. The coefficient value of REM is (-0.613915) and p-value is (0.0000) remuneration, in the study also shows significant negative relation with DTE. Some studies found

TABLE 4.18: DTE Random Model Cement

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	12.22812	3.78222	3.233055	0.0017
BM	0.003867	0.012094	0.319738	0.7499
FS	0.014907	0.197773	0.075375	0.9401
LOG.REM	-0.613915	0.098948	-6.204441	0
ACS	0.043147	0.086514	0.498731	0.6191
R-squared	0.502773	Durbin-Watson stat		0.862772
Adjusted R-squared	0.481615			
F-statistic	23.76216			
Prob(F-statistic)	0			

a strong relationship between remuneration and performance (Ntim et al., 2015). The inverse relation shows that if remuneration of board is high, they go for equity issuance for improved capital structure. There is significant negative relationship between remuneration of board of directors with DTA. It may be due to the fact that if remuneration is high the more concentration is towards capital structure and for that purpose equity is issued. Moreover, the CEO compensation has a negative impact on capital structure. This finding implies that when CEOs are highly compensated, they rely on less debt (Wen et al., 2002).

4.12 Technology Sector

4.12.1 DTA Hausman Technology Sector

TABLE 4.19: DTA Hausman Technology Sector

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	3.740114	4	0.4423

4.12.2 DTA Random Model Technology Sector

The regression analysis of the equation, shown in the table above (4.27), shows that some of the variables are significant in relation to the independent variable, which is the debt to asset ratio, in this study. R-square value is 11%. The adjusted

R-square value is 7% and indicates variation occurred in dependent variable due to independent variable in the presence of a set of control variables. The Durbin Watson test is a statistical test that demonstrates that autocorrelation between sets of data. If it's between 1.5 and 2, which means the data doesn't have any auto correlation but here durbin Watson value is 0.81.

ACS shows a significant relationship with DTA, the coefficient value of ACS is (0.092266) and p-value is (0.0033) shows significant positive relationship with DTA. It shows ACS of the company will effect DTA. Previous research has shown that the size of the audit committee has a considerable impact on a company's profitability (Aldamen, et. al ,2012; Detthamrong et al., 2017).

BM has the insignificant relationship with DTE with coefficient value of (-0.010890) and p-value of (0.3438). There is supposed to be negative relationship between board meetings and leverage. Researcher investigated that the relationship negative in developing countries. (Ntim and Oseit 2011; Johl et al. 2015).

TABLE 4.20: DTA Random Model Technology Sector

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.328117	0.439118	0.74722	0.4568
ACS	0.092266	0.030642	3.01104	0.0033
BM	-0.01089	0.011446	-0.9514	0.3438
FS	-0.022272	0.01855	-1.2006	0.2329
LOG_REM	0.011138	0.014402	0.77337	0.4412
R-squared	0.113227	Durbin-Watson stat		0.8172
Adjusted R-squared	0.075492			
F-statistic	3.000586			
Prob(F-statistic)	0.022285			

The coefficient value of FS which represents size of the firm, is (-0.022272) and p-value is (0.2329). The FS shows negative relation with DTE but the relation is insignificant and it supposed to be negative according to our hypothesis.

The coefficient value of REM is (0.011138) and p-value is (0.4412) remuneration, in the study also shows insignificant positive relation with DTE. Several found either a weak or no association (Chen et al., 2011; Haron, 2018), while others found neither (Ntim et al., 2015; Raithatha and Komera, 2016; Sheikh et al., 2018).

4.12.3 DTE Hausman Technology Sector

TABLE 4.21: DTE Hausman Technology Sector

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	11.29606	4	0.0234

4.12.4 DTE Fixed Model Technology Sector

TABLE 4.22: DTE Fixed Model Technology Sector

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.076067	1.622588	-0.04688	0.9627
ACS	0.177898	0.108144	1.64502	0.1036
BM	0.102309	0.039141	2.61383	0.0106
FS	0.069537	0.068557	1.01431	0.3133
LOG_REM	-0.102359	0.051654	-1.98161	0.0507
R-squared	0.731413	Durbin-Watson stat		1.15806
Adjusted R-squared	0.693935			
F-statistic	19.51615			
Prob(F-statistic)				

The regression analysis of the equation, shown in the table above (4.30), shows that some of the variables are significant in relation to the independent variable, which is the debt to equity ratio, in this study. R-square value is 73%. The adjusted R-square value is 69% and indicates variation occurred in dependent variable due to independent variable in the presence of a set of control variables. The Durbin Watson test is a statistical test that demonstrates that autocorrelation between sets of data. If it's between 1.5 and 2, which means the data doesn't have any auto correlation but here durbin Watson value is 1.15.

ACS shows a insignificant relationship with DTE, the coefficient value of ACS is (0.177898) and p-value is (0.1036) shows insignificant positive relationship with DTE. It shows ACS of the company will never effect DTE. Previous research has shown that the size of the audit committee has a little impact on a company's profitability (Aldamen, et, al, 2012; Detthamrong et al., 2017).

BM has the significant relationship with DTE with coefficient value of (0.102309) and p-value of (0.0106). There is supposed to be positive relationship between

board meetings and leverage. Researcher investigated that the relationship negative in developing countries. (Ntim and Oseit 2011; Johl et al. 2015).

The coefficient value of FS which represents size of the firm, is (0.069537) and p-value is (0.3133). The FS shows negative relation with DTE but the relation is insignificant and it supposed to be negative according to our hypothesis.

The coefficient value of REM is (-0.102359) and p-value is (0.0507) remuneration, in the study also shows significant positive relation with DTE. Several reported either a limited or no association (Chen et al., 2011; Haron, 2018), whereas others identified neither (Ntim et al., 2015; Raithatha and Komera, 2016; Conyon and He, 2011; Fernandes, 2008). The inverse relation shows that if remuneration of board is high, they go for equity issuance for improved capital structure.

There is significant negative relationship between remuneration of board of directors with DTE. It may be due to the fact that if remuneration is high the more concentration is towards capital structure and for that purpose equity is issued. In the study of Ahmad and Afza showed that capital structure negatively affects the accounting performance of the non-financial firms of Pakistan. (Ahmad and Afza, 2019). Moreover, the CEO compensation has a negative impact on capital structure. This finding implies that when CEOs are highly compensated, they rely on less debt (Wen et al., 2002).

4.13 Fertilizer Sector

4.13.1 DTA Hausman Fertilizer Sector

TABLE 4.23: DTA Hausman Fertilizer Sector

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	1.62145	4	0.8049

4.13.2 DTA Random Fertilizer Sector

ACS shows a insignificant relationship with DTA, the coefficient value of ACS is (0.025583) and p-value is (0.2278) shows insignificant positive relationship with

DTA. It shows ACS of the company will never effect DTA. Previous research has shown that the size of the audit committee has a considerable impact on a company's profitability (Aldamen, et. al, 2012; Detthamrong et al., 2017).

BM has the significant relationship with DTA with coefficient value of (-0.027545) and p-value of (0.0351). There is supposed to be negative relationship between board meetings and leverage. Researcher investigated that the relationship negative in developing countries. (Ntim and Oseit 2011; Johl et al. 2015).

TABLE 4.24: DTA Random Fertilizer Sector

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-2.29131	1.199097	-1.91086	0.0607
ACS	0.025583	0.021001	1.218177	0.2278
BM	-0.02755	0.012783	-2.15489	0.0351
FS	0.122758	0.047843	2.565847	0.0128
LOG_REM	-0.01386	0.015623	-0.88708	0.3785
R-squared	0.155327	Durbin-Watson stat		1.1087
Adjusted R-squared	0.099938			
F-statistic	2.804321			
Prob(F-statistic)	0.033322			

The coefficient value of FS which represents size of the firm, is (-0.122758) and p-value is (0.0128). The FS shows negative relation with DTA but the relation is significant and it supposed to be negative according to our hypothesis.

The coefficient value of REM is (-0.013859) and p-value is (0.3785) remuneration, in the study also shows insignificant negative relation with DTA. Several reported either a limited or no association (Chen et al., 2011; Haron, 2018), whereas others identified neither (Raithatha and Komera, 2016; Conyon and He, 2011; Fernandes, 2008).

4.13.3 DTE Hausman Fertilizer Sector

TABLE 4.25: DTE Hausman Fertilizer Sector

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	1.49635	4	0.8273

4.13.4 DTE Random Fertilizer Sector

TABLE 4.26: DTE Random Fertilizer Sector

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-21.22168	4.993732	-4.249664	0.0001
ACS	0.221377	0.087194	2.538889	0.0137
BM	-0.085194	0.053367	-1.596386	0.1156
FS	1.021134	0.198453	5.145478	0
LOG.REM	-0.164058	0.067969	-2.413723	0.0188
R-squared	0.370437	Durbin-Watson stat		1.395506
Adjusted R-squared	0.329154			
F-statistic	8.973142			
Prob(F-statistic)	0.000009			

The regression analysis of the equation, shown in the table above (4.36), shows that some of the variables are significant in relation to the independent variable, which is the debt to equity ratio, in this study. R-square value is 37%. The adjusted R-square value is 32% and indicates variation occurred in dependent variable due to independent variable in the presence of a set of control variables. The Durbin Watson test is a statistical test that demonstrates that autocorrelation between sets of data. If it's between 1.5 and 2, which means the data doesn't have any auto correlation but here durbin Watson value is 1.39.

ACS shows an significant relationship with DTE, the coefficient value of ACS is (0.221377) and p-value is (0.0137) shows significant positive relationship with DTE. It shows ACS of the company will effect DTE. Previous research has shown that the size of the audit committee has a considerable impact on a company's profitability (Aldamen, et. al, 2012; Detthamrong et al., 2017).

BM has the insignificant relationship with DTE with coefficient value of (-0.085194) and p-value of (0.1156). There is supposed to be negative relationship between board meetings and leverage. Researcher investigated that the relationship negative in developing countries. (Ntim and Oseit 2011; Johl et al. 2015).

The coefficient value of FS which represents size of the firm, is (1.021134) and p-value is (0.0000). The FS shows positive relation with DTE but the relation is significant and it supposed to be negative according to our hypothesis. The coefficient value of REM is (-0.164058) and p-value is (0.0188) remuneration. E.

Krauter and A.F. Sousa (2009) analyse whether there is a link between executive pay and financial performance. The inverse relation shows that if remuneration of board is high, they go for equity issuance for improved capital structure.

There is significant negative relationship between remuneration of board of directors with DTE. It may be due to the fact that if remuneration is high the more concentration is towards capital structure and for that purpose equity is issued. Moreover, the CEO compensation has a negative impact on capital structure. This finding implies that when CEOs are highly compensated, they rely on less debt (Wen et al., 2002).

Chapter 5

Conclusion

The impact of CEO characteristics on capital structure in a rising economy, namely Pakistan, is investigated in this study. However, when compared to past studies on developed countries, some findings are inconsistent with the literature. The concept that the gender of the CEO has an impact on capital structure is also supported. Male CEOs had a greater impact on corporate performance than female CEOs, according to the findings.

Surprisingly, the number of female CEOs in Pakistan's economic sector has been steadily rising. Finally, the hypothesis of formal business and management education has an impact on capital structure is supported. The findings show that CEOs' formal business/management education helps them in making good decisions to improve the company's performance.

The current study aims to emphasise the association between capital structure factors and their impact on firm financial performance in Pakistan's five distinct industries. The debt to equity ratio (DTE) and the debt to total assets ratio (DTA) are the dependent variables (DTA). CEO gender, CEO education, audit committee size, board meetings, and director salary are the independent factors in the study, with business size serving as a control variable.

The random-effect regression and fixed-effect regression models were used with a relaxed approach to compile results and also perform Hausman t-statistic results by using panel data for the analysis, which takes into account both cross-sectional and time series dimensions.

The outcomes can be divided into two phases. First, it was statistically proven that the variables have a positive or negative relationship with the dependent variable and have an impact on Pakistan's overall five major sectors. The findings show that the capital structure variable has a negative and statistically significant relationship with ceo gender, board meetings, and remuneration, while ceo education has a significant positive effect on capital structure, while audit committee size has a negative and statistically insignificant relationship.

Sector results are similar, while audit committee size and board meetings have a negligible positive impact on capital structure. The results of our research support the trade-off theory. The debt ratio has a negative association with business size, according to the pecking order hypothesis, and our data suggest that firm size and debt are negatively connected in Pakistan.

Our findings will aid capital structure decisions and support the trade-off theory's hypothesis that firms should increase their debt ratio in the capital structure on an individual level to boost performance. However, our research was limited to only five Pakistani industries and enterprises listed on the Pakistan Stock Exchange.

5.1 Recommendations

In a nutshell, Pakistan's regulatory organizations take substantial steps to enhance the country's CG rules. However, most listed companies in Pakistan still have weak practices as compared to those in the developed world. The findings of this study show that the choice of debt or equity financing partially influences, either positively or negatively, the relationship between CEO characteristics and business financial performance.

5.2 Limitations

The following are the study's limitations, as well as some recommendations for future research. Future research could look into the role of independent directors as a mediator in determining the link between CEO traits and capital structure.

Furthermore, the research is carried out for ten years within the Pakistani corporate sector. It can be applied to other emerging countries with CG codes in the similar stage of development.

5.3 Future Directions

This research is limited to a single developing country (Pakistan). Many additional nations should be considered for trade credit and companies profitability, according to the report. As a result, the study analyses yearly data from non-financial businesses to investigate the influence of credit ratings on trade credit, as well as nations for future research. The research time frame is nine years from 2008 to 2019, but it can be extended by another twelve years to get more precise results. Pakistan's empirical research funding has spawned new research breakthroughs in this subject that can be replicated in other countries.

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