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Earning Quality and Firm Performance in PSX Listed Companies: Moderating Role of Board Quality and Political Connections

by

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Earning Quality and Firm Performance in PSX Listed Companies: Moderating Role of Board Quality and Political Connections

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Dedicated to my beloved Parents, my Husband and my Kids

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1. Zahid, N. and Ahmed, J. (2023), "Earnings Quality Index, Political Connections And Firm Performance", *Journal of Positive School Psychology*, Vol. 32 No. 3, pp. 337-354.

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Abstract

An efficient monitoring by an effective board can correlate the firm performance. The main purpose of this study is to examine the interaction of earnings quality and political connections of board of directors as well as quality of board of directors on firm performance in Pakistani non-financial sector. Using a sample of 114 actively trading firms on Pakistan stock exchange (PSX) for the period of 2009-2019, Generalized methods of moments (GMM) estimates for panel data has been used. To controls for endogeneity problem lag of proxies for firm performance are used. First the effect of earnings quality on performance of the firm is measured. Then the moderating effect of quality and political connections of board of directors has been studied on the relationship of earnings quality and firm performance. Thirteen attributes of board of directors (BOD) have been converted in a single composite score using PCA technique named it as independent variable as BOD Index. The political connections of the board of directors whether direct or indirect have been identified by a dummy variable. Earnings quality index is created using three widely used proxies of earnings quality named as accruals, persistence and earnings smoothness. Three attributes of firm performance have been used namely Return on Assets, Return on Equity and Profit Margin (ROA, ROE and PM). The basic regression results suggests that earnings management practices by the firm decreases performance of the firm. The results show that politically connected firms have lower earnings quality. The results are consistent and support the prior research that Pakistani corporate sector has great influence of political connections. Firms with political affiliations involve more in accrual earnings manipulations to improve financial numbers. These findings reveal that non-connected firms perform better than connected firms. Also positive and significant results for moderating effect of board of director's quality on the nexus of earnings quality and firm performance have been drawn. This moderation effects supports the agency theory that better quality boards will save the rights of stakeholders of the firm by decreasing the role of earnings quality management. Thus, the results suggest that when director's quality is strong, firms are less likely to use earnings manipulations. Significant results of firm performance shows earning

management practices. Overall, the findings of this study are helpful for stakeholders, investors, supervisory and regulatory bodies to analyze the financial reports of politically connected firms even after the implementation of code of corporate governance and in improving financial reporting quality. The results support from Agency theory and resource dependency theory.

Key words: Earnings Management, Earnings Quality, Board of Directors, Political Connections, Non-financial firms, Accruals, Pakistan, Firm performance, Return on Assets, Return on Equity, Profit Margins

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Abbreviations

BOD	Board of Director
CCG	Code of corporate governance
CG	Corporate governance
CEO	Chief Executive officer
CACG	Commonwealth Association for Corporate Governance
EQ	Earnings Quality
GAAP	Genaerally Accepted Accounting Principles
IFC	International Finance Corporation
OECD	Organization for Economic Cooperation and Development
PM	Profit Margin
PSX	Pakistan Stock Exchange
ROA	Return on Assets
ROE	Return on Equity
SECP	Securities and exchange commission of Pakistan

Chapter 1

Introduction

The literature on earnings management supports that managers use their own discretion which is allowed to them by accounting principles. They are allowed to inflate and reduce the earnings for several reasons. The main reason behind their intension is to increase their wealth speculatively. This intension of mangers is justified by the agency theory (1976) and positive accounting theory (1978). When the managers prefer their self-interest, it leads towards the problem of managerial opportunism. For controlling this managerial opportunism governance systems are introduced to bring into line the self-interests of managers with the shareholders interests. Especially the stakeholders of the Asian companies depend on the external and internal board strategies to get maximum returns on their investment. The external governance mechanism includes taking over of legal system and play a vital role to monitor manager's behavior to increase firm performance. On the other side, the internal governance systems controls the mechanism for the separation of ownership and control. This interest alignment of all the parties or stakeholders underlies in a good governance system (Heugens et al., 2009).

Actually the aim of corporate governance is to avoid earnings management techniques or at least reduce these practices. Therefore a sound governance system with an efficient and effective board enhances the investors' confidence on the firms. This team of governance system is led by an excellent board to align the interests of all stakeholders by providing good management and reducing earnings management. This relationship encapsulates the theme of moderating quality of board on the relationship of earnings quality and firm performance. The relationship of

earnings quality and firm performance is not uni-directional but it has a reverse causality (Alexander et al., 2017; Debnath, 2017; Sari et al., 2021). Therefore this relationship can be studied with different perspectives.

The interrelationships of earnings quality, governance and performance have been the topic of many studies using panel data estimation techniques for the case of Bangladesh (Chaity and Islam, 2022), for India by **?** and studies by Siddiqui et al. (2022), Shahzad et al. (2023) for the cases of Pakistan. The ultimate objective of any organization is to increase the profitability, the earnings quality and best performance both are given equal importance. The manipulations in earning numbers and its impact on performance are not linked systematically but both give shocks to the company investors. This current study is considering non-financial firm' study of earnings quality and firm performance for Pakistani corporate sector using a dynamic panel model and GMM approach. The study is novel in numerous ways. The study will be first of its kind to use accruals, earnings persistence and earnings smoothness to find earnings quality by creating an index of these proxies.

Dechow et al. (2010) has discussed approaches to calculate earnings quality but all of them have used it as simple relation. The accrual models are used by researchers to find earnings quality. The relationship of earnings quality and firm performance are inter-dependent as both have ROA as predictor, and have reverse causality therefore the results will be formed using simultaneous equations. Endogeneity is tested and GMM technique is applied.

Moreover, it is the first study to use board of director's quality index as a moderator rather than taking the characteristics of board of directors separately as used by other studies on the relationship of earnings quality and firm performance.

The study finds the relationship of earnings quality of firm performance with the moderating role of board of director's quality and political connections. Quality of earnings is widely studied topic in the field of finance. These quality of earning is considered as most important feature in making decisions by the investors and financial analysts. Another most important concept which is widely studied in finance literature is of corporate governance. This governance concept after the financial crisis raised to its peak. In developing countries these concepts of

governance is of greater importance. In this study a detailed analysis for earnings quality has been presented in relation to the firm performance. The results indicates that earnings quality decreases the performance of the firm .

It is justified logically that when earnings of any company are manipulated and does not depict the true information, it leads to lower performance effect on real earning of the firm. Also two moderators have been introduced into above relationship of earnings quality and firm performance. These two variables are board of directors' quality and political connections. The reason to add these variables as moderator is that earnings quality alone doesn't give any meaning. It is clear that earnings are manipulated better picture of the firm. But there are some factors involved in causing these manipulations. One of the most important factor is governance having many subsections. But as per the findings of this study, the most important and widely used section of governance is board of directors. The board of directors of any organization act as a back bone of the firm. It is not a single term but depiction of personality which has a all the good characteristics to be at the executive seat.

The second moderator in the study is political connection moderating the relationship of earnings quality and firm performance. The findings of current study supports the argument that in Pakistani non-financial firms, the quality of earnings is decreasing the performance of these firms. Also the quality of board of directors and their political affiliations significantly influences the relationship of earnings quality and firm performance.

The study is elaborated in following steps. First, the effect of earnings quality on the financial performance of the firm is studied for the case of Pakistani non-financial firms. Secondly the study incorporates the moderating role of firm's board of directors' characteristics and also the political affiliations on the relationship of earnings quality and firm performance. Thirdly, the results of the study extends and confirms the agency theory that characteristics of board of directors and their political associations effects earnings management techniques in the firm.

The study is important in corporate studies because in theoretical and empirical literature, there are mixed results for the effect of earnings quality on firm performance. Some studies found positive effects of earnings quality on firms'

performance (Boachie and Mensah, 2022) while others found it as negative effects on firms' performance (Alhadab et al., 2017). There are also mixed results of inconclusiveness regarding the effect of earnings quality on firm performance.

Moreover, the methodologies used in earnings quality study requires further testing. Accruals cannot be considered as only best measure for earnings quality. Therefore, the study is significant as it applies index for measuring quality of earnings and also multiple characteristics of board of directors have been used to work as a moderator. It has a better estimation of model specification in an institutional setting in Pakistan where governance mechanism and arrangements for them is greatly different from developed countries where we find more evidences of such studies of relationship of earnings quality, board of director's quality, political associations and firm performance. This study is motivated by the following essential questions:

1. Why should earnings quality be measured as an index

2. Why the characteristics of board of directors should be taken as a composite score measure

3. Why the moderation of political influence is to be studied on the relationship of earnings quality and firm performance.

The ultimate objective of any organization is to increase the profitability, the earnings quality and best performance both are given equal importance. The manipulations in earning numbers and its impact on performance are not linked systematically but both give shocks to the company investors. In this study, this relationship is elaborated that earnings quality, board of directors' quality and political connections are linked in a dynamic causal relationship.

This relationship explains that performance of any firm is effected by the past performance. The significant results of the lagged dependent variable supports dynamic nature of earnings quality, board of directors' quality, political connections and firm performance. This relationship can be from the future to the past performance so makes a problem of endogeneity.

The study first examines the causal relationship of earnings quality and firm performance and then moderating this relation by introducing board of director's quality and political affiliations as a moderator. There is a debate of governance

variables effecting the relationship of earnings quality and firm performance but a combined effect of governance parameters is missing. Since this governance is performed by the board of directors so there role is most pertinent in studying this relationship.

This study is first of its kind in presenting the board of quality as a single variable by creating a composite score of thirteen characteristics of board of directors. These earnings quality are improved or deteriorate under the rules and policies of corporate governance. In Pakistan there are mostly family owned businesses and most of them are politically connected so the earnings quality is effected by quality of board of directors as well as their political associations. An effective board with no personal or political interests limit the opportunistic behavior of managers, hence controlling the earnings quality which eventually increases the integrity and credibility of firms.

Internationally, these policies for governance have been developed with time and presented some guidelines for developing and implementing local governance codes for specific countries and their capital markets. The list of these governance associations is as follows:

- (CACG) The Commonwealth Association for Corporate Governance (1999)
- (OECD) Organization for Economic Cooperation and Development (2004)
- (IFC) International Finance Corporation (2005)

As a response to this almost all of the countries have developed CG codes by knowing its importance and its effect on efficiency of organizations. Pakistan has also developed its code of corporate governance which will be explained in detail in the next section.

1.1 Theoretical Background

There are many theories that can relate in expanding earnings quality, involvement of political connections and governance in literature. These include agency theory (1979), signaling theory (1973), resource-dependency theory (1978), stake-holder theory (1971), moral hazard theory (1998) stewardship theory (1991), transaction cost theory (1985), and positive accounting theory (1986). Every human prefers

his self-interest. Shareholders of the firm are concerned with informed updates regarding operations of the firm. More specifically, the problem of board and governance is a classic application of the principal–agent theory (agency theory) and positive accounting theory.

1.1.1 Agency Theory

The main theory to explain corporate governance is agency theory presented by Jensen and Meckling (1976). In this system the principal (the shareholder) desires the agent (the manager) to maximize shareholder value, but is not in position of evaluating executive's reaction and relations. The goals of the executives may be different from that of the shareholders.

Value of the firm from agency theory viewpoint is essential consideration for managers because with this purpose in mind, managers focus on activities leading to high performance (Nordqvist et al., 2015). Agency theory suggests that connected directors may enforce earnings management activities to support their self-interest over the interest of other stake holders. They have access to internal information which they use for personal benefits. This theory is further explained in the context of ownership and control by Fama and Jensen (1983).

The agency theory is a concept states that a BOD's primary duty is to protect the investors' objectives via the exercise of sound judgment and efficient management (Merendino & Melville, 2019). Under the context of this theory, it may be determined that the link among board size, board salary, and the existence of a co-chief executive officer (Pucheta-Mart, 2020).

One of the most common frameworks for investigating the links among the board of directors' makeup and company success is agency theory. According to agency theory, interest conflicts may occur among investors (principals) and managers (agents) due to informational asymmetry and unequal motivations. The BOD is the go-between for managers and investors, watching out for their interests while management does its job (Zhou et al., 2018).

Recently, researchers have examined the connection between various qualities of boards of directors and agency theory, specifically how these traits affect business

success. Board knowledge is a good example of such quality. Companies with more knowledgeable directors saw greater value, profits, and revenue increases. Expertise may broaden the board's horizons and help it better oversee leadership. Competence in the board game is another quality (Khuong et al., 2022). Also boards with more knowledgeable members had better-performing companies. They discovered that expertise in "finance, accounting, and strategic management" was positively associated with company success. Equal representation of women on the board has also been researched in light of agency theory (Zandi et al., 2021).

According to a meta-analysis conducted by Poletti-Hughes and Briano-Turrent (2019), a board with a diverse group of women at the helm tends to be more successful than one without it. The authors argued that boards with a wide range of perspectives and experiences would be better equipped to consider and address the concerns of all stakeholders (Poletti-Hughes and Briano-Turrent, 2019).

Diversity, in general, has also been linked to agency theory (Song et al., 2020) demonstrated that board diversity (gender, age, and international experience) was directly linked to corporate success in financial terms (Song et al., 2020). Finally, the age of directors has been linked to agency theory. A study by Elsayed and Elbardan (2018) found that boards with younger directors had higher firm value and profitability. Younger directors may bring new ideas and perspectives to the board and may be more likely to challenge established norms and practices.

In summary, agency theory provides a framework for understanding the relationship between the board of director attributes and organizational efficiency. Recent research has shown that expertise, knowledge, gender diversity, diversity in general, and age are all important characteristics to consider when analysing this relationship (Elsayed and Elbardan, 2018).

1.1.2 Signaling Theory

The theory suggests that presentation of higher profitability in financial statements provide a positive signal in the market to attract investors. Relating to the current study, managers may involve in earnings management techniques to window dress

earnings to attract investor. The most commonly used earnings management technique is accrual based management. In this method of presenting earnings quality, accounting numbers are being changed in current year but then reverse it in the future. These techniques are helpful in improving financial conditions of companies. A positive effect of accruals on corporate investments has been studied for Pakistan, Ghana and for Tunisian investor (Abbas and Ayub, 2019; Wenfang and Ayisi, 2020; Sayari and Omri, 2017).

1.1.3 Resource Dependency Theory

The resource dependency theory by (Pfeffer & Salancik, 1978) states that important resources of the firm leads it towards higher profitability. Political relationship is considered as a best resource exerting positive effect on profit of the firm. It helps to access prioritized benefits from provincial and national government which returns in better profitability. Keeping in view resource dependency theory, the role of directors as a resource person between organization and external environment liable them to risks and effects accounting quality (**?**).

It emphasizes the noteworthiness of external resources for companies to survive and grow. Resource dependence theory posits that organizations rely on external resources to survive and achieve their goals, and these resources can be acquired through corporate relationships with their environment. In the context of BOD characteristics and company outcomes, the theory illustrates that the board's composition and structure can affect the organization's access to critical resources, which can affect its outcomes (Zhou et al., 2018).

Independent directors can be seen as a way for companies to access external resources and expertise that can help the companies to enhance their performance. The number of board meetings directors attend can also be seen as a way to access external resources, as it allows the board to discuss and address issues facing the company (Bommaraju et al., 2019). From the viewpoint of resource reliance, much recent research has analysed the connection between board qualities and business success. For instance, Zhou et al. (2018) analysis of data from Greece enterprises indicated that boards with greater degrees of independence and

knowledge favoured company performance because they could better oversee the managerial team and make sound choices. Likewise, Duppati et al. (2020) studied the correlation between board diversity and business productivity in India & Singapore. They concluded that it was correlated with improved profitability because it helped companies better understand and react to the requirements of their many stakeholders. These findings support the resource dependency viewpoint and imply that board qualities may significantly affect business performance by altering the institution's access to key resources. Specifically, boards with greater expertise, independence, diversity, and larger size may be better equipped to monitor management, make effective decisions, and access the diverse resources needed to achieve the organisation's goals Duppati et al. (2020).

1.1.4 Stakeholder Theory

Value of the firm from stakeholder viewpoint is essential consideration for managers because with this purpose in mind, managers focus on activities leading to high performance. Despite of manager's primary focus on economic performance measures, a stakeholder-based measure encounters them to analyze the value of firms created as of the stakeholder's perspective who actually creates it. It gives information to the managers to involve stakeholders and enrich the ability of managers to use stakeholder's insights for more value creation. Lenders, investors and outside shareholders all get benefitted with a greater value of firm.

1.1.5 Stewardship Theory

The necessity of competent and dedicated BODs committed to the business's long-term growth is highlighted by stewardship theory, which also gives insight into the role of board qualities on an organisation's profitability. This idea may be used in the study of directors' and their families' shareholdings, which is seen as a mechanism for promoting alignment between the interests of the BODs and those of the firm (Abdeljawad and Masri, 2020). According to the stewardship principle, the BODs should serve as "stewards" of the company and make decisions in its best financial interest instead of their own.

Hence, the BODs should take the long view, prioritise the expansion and stability of the organisation, and concentrate on expanding the organisation's assets. In this view, the BODs and the organisation's other investors must be able to work together and have their interests aligned for the company to succeed (Abdulsamad et al., 2018).

Stewardship theory has recently been studied concerning the board of director traits and corporate success. For instance, research by Waheed and Malik (2019) shows that keeping more females on a board improves the adoption of stewardship habits, which in turn boosts a company's profitability. The authors contend that boards with more presence of females are more inclined to work together and put the company's long-term success first. Stewardship theory says that board of director qualities like female representation, board terms, and board independence are vital for fostering collaboration, a focus on the long term, and interest alignment among the board, the company's investors, and the management team—several studies back up these claims with data, showing that stewardship actions do improve business results (Waheed and Malik, 2019).

1.1.6 Hazard Moral Theory

When these managers and directors focus on their own personal benefits as a result of information asymmetry, it leads to explaining hazard moral theory. In this situation managers are aware of risks associated with investments in the firm than investors who are paying for that risk. They are able to take too much risk on behalf of those who are less informed.

1.1.7 Upper Echelon Theory

Lastly, the influence of director qualities on business performance, such as average age, tenure, and other board positions, may be analyzed using the upper-echelon theory. According to this school of thought, a business's strategic choices and overall success may be profoundly affected by the personalities of its senior management, particularly its directors (Thambugala and Rathwatta, 2021). According to the upper-echelon idea, organizational outcomes may be predicted by looking

at its BODs and other senior managers. Specifically, the theory suggests that executives' values, cognitive frames, and demographic characteristics shape strategic decisions and impact organizational outcomes (Lee et al., 2018).

Using demographic diversity as an example, the upper-echelon theory may be applied to the qualities of a board of directors. A more diversified BOD may make more well-rounded strategic decisions and boost the company's bottom line. Hasina and Bernawati (2021) found that a more diverse board was associated with better financial outcomes. Another way upper echelon theory applies to the board of director attributes is through executive compensation. According to this line of thinking, paying CEOs more money might encourage them to take more chances and make more creative, strategic decisions, which would benefit the company (Hasina and Bernawati, 2021).

Additionally, the theory illustrates that executives' educational and experiential backgrounds, including the BODs, can shape strategic decisions and organisational outcomes. A study by Shen (2021) found that female directors' education level and professional experience had a direct role in organisational outcomes. The theory suggests that board of director attributes, including demographic diversity, executive compensation, and educational and experiential backgrounds, can significantly impact organizational efficiency. These findings can inform board selection, composition, and executive compensation policies to promote better strategic decision-making and improved firm outcomes (Shen, 2021).

1.2 Earnings Quality, Corporate Governance, Political Connections and Firm Performance

The inter relationship of earnings quality, corporate governance and firm performance has become the topic of discussion after corporate failures. Good quality of earnings with true accounting information and efficient members of organization is considered good for firms and vice versa. Relationship of quality management and firm performance is not direct but it is influenced by the role of quality of corporate governance and if this governance mechanism is strong, opportunistic

behavior can be reduced which results in true firm picture and a healthy market. Earnings quality itself alone does not affect the performance of the firm. Manipulations are done to present better picture of firm performance, attract investors and get favors from government and allied departments.

The relation between accounting discretions and corporate governance identifies that governance is that phenomenon which leads to accounting discretions on basis of current year's performance of management. It gives rise to earnings manipulations which is responsible for the prediction of future earnings (Iatridis, 2018). The quality of board created can also be taken as independent variable in creating corporate governance index when studying literature on corporate governance because it is more important than all other governance parameters (Bin-Sariman et al., 2016).

The corporate governance quality metrics moderates the relationship of earnings quality and firm performance. The effect of earnings management on performance persist although endogeneity is controlled (Boachie and Mensah, 2022).

Capitalist society actually assumes harmony among the economic interests of individuals with economic interests of society and SCMM "self-correcting mechanism of markets". Financial crisis of 2008 has actually shown that capitalism is not more than an illusion which does not have any provision in real life. With failure of this concept econometricians and financial analysts were in deep search for what can be done so that interests of both that is individuals and society can be achieved at the same time.

This was resolved with the idea of stakeholder capitalism which is defined as "a system in which corporations are oriented to serve the interests of all their stakeholders." Professionals like managers and CEO are hired for serving the interests of all stake holders of their society.

The top management of any company is responsible for corporate decision making and firm outcomes (Hambrick, 2007; Carpenter et al., 2004). Executives have great influence on accounting values of the company so they can manipulate earnings and if he is member of the board, influences relationship of earnings quality with firm performance (Tang et al., 2013).

1.2.1 Earnings Quality

Earnings management has different relationship with firm performance depending on the opportunistic or beneficial behavior of managers. But on a lighter note, board quality definitely effects accounting choices. Managers of the company having poor board quality are more opportunistic towards earnings management which results in poor operating performance of the firm. Whereas managers of the company with good quality of board uses accounting manipulations only under special situations to reduce finance cost or any response to financial or economic conditions.

Earnings management is a form of disclosure management whose purpose is to intervene in the external financial reporting in order to obtain private benefits. According to Schipper (1989) earnings management can be of many types

- Misrepresentation in books of accounts
- Fraudulent financial reporting
- Violations of accounting policies
- Income smoothing
- Aggressive smoothing

There are many reasons for companies to involve in earnings management. It is opted because when earnings are stable it assures higher dividend. Also it negates the volatility in earnings flow. This volatility in earnings show higher riskiness of the company which eventually effects market capitalization and shares. Other reasons to involve in earnings management is job security and high compensations. Opportunistic behavior of managers allow them to involve in accounting discretions in order to achieve their interests over the interests of other stake holders which negatively affect firm performance. Information asymmetry is common problem listed firms. When the information is conveyed by the managers it is assumed that the information is correct and market adjusts efficiently to this information. But this is not actually the case, information conveyed by managers is not true what happens in the firm (Louis, 2004). On the other hand, information effectiveness of managers allow them for certain accounting methods used to convey information about future earnings of the firm (Siregar and Utama, 2008). Executives have great

influence on accounting values of the company so they can manipulate earnings and if he is member of the board, influences relationship of earnings management with firm performance (Tang et al., 2013).

Another earnings management technique can be playing with GAAP accounting principles to provide desire level of management decisions for future cash flows. It is also preventive measure to avoid situations such as loan default. This earnings management is more common practice in public companies (Li et al., 2020).

This benefit to the management of manipulations has many benefits but it is also subject to some hidden costs. If mangers get benefit from indulging in earnings management by hiding the confidential and private information from the stakeholders, it is done at the cost of potential misallocation and misuse of organizational resources. These activities help to shape up the perceptions of stakeholders about the company. This shaping of view and changing minds is also considered to be unethical and effects the interests of the company directly or indirectly (Cornett et al., 2008).

Earnings quality (EQ) alone has no meaning but it works is some specific settings, so earnings quality is studied in accordance with decisions depending on information section of firm performance (Beyer et al., 2019). A number of studies has been conducted to capture its effect on firm performance but it is not only predictor (Menicucci, 2019). There should be other variables necessarily intervening this relationship. Both in theoretical and empirical literature, the existing earnings quality measures have been criticized. These existing models are unable to distinguish between ambiguity in financial reports because of nondiscretionary business fundamentals and the distortions because of reporting or accounting noise (Dechow et al., 2010). Beyer et al. (2019) estimated their model to address the above ambiguities and empirically separated investor ambiguity resulted of reporting or accounting distortions (earnings quality) and investor ambiguity as of firms economic earnings process.

The purpose of accounting and its use has been the topic of debate since years. The debate has been started in 1951 by Graham and Dodd and further extended with studies such as to provide earnings information to the individuals concerning with firm, credibility of stock price and importance of current year's and next

year's earnings and cash flow. Investors are concerned more about the future earnings than current year's single number of earnings. This research of earnings, its use and its necessity has been the focus in developing countries but fewer for Asian markets specifically Pakistan. Similarly the focus is on the investors but the hidden motive behind any accounting number is corporate benefits such as tax relaxations and increase in credit rating. The ownership structure of developing countries is highly concentrated (Ali Shah et al., 2009) so the function of published financial information seems useless as financial information is not for the use of valuation purpose specially in developing economies (Pirveli, 2020).

Also, the organizational, management and economic theories cannot be applicable in same way in developed and developing countries because of different legislative, political and organizational setups. So the need is to establish a separate mechanism or set of defined procedures which help firm level practices in specific setting and stake- holder's interests. This research of earnings, its use and its necessity has been the focus in developing countries but fewer for Asian markets. Considering the above situation, this current study has taken in consideration some factors that can be related to earnings quality in developing countries using a sample from the economy of Pakistan. Two moderator variables are studied on the nexus of earnings quality and firm performance. First is board of director's quality index (BOD Index) and the other is their political affiliations. Thirteen most important attributes of directors are combined using PCA analysis to create an index named as BOD Index. This study is presenting an analysis with empirical evidence that a group of characteristics of board of directors and their political affiliations are clearly associated in determining quality of earnings and its effect on firm performance. The study elaborates the moderating role of directors in controlling this number game and explaining the role of board as the most important measure in determining quality of corporate governance. The manipulations in these numbers is the focus of this study that managers when try to bad fit the accounting numbers, how it effect the performance of the firm. Also the moderating role of directors in controlling or increasing this number game for personal benefits or corporate benefits from political affiliations is elaborated.

The study elaborates that if quality of board is good then it will lower the need

for accrual accounting as policies will be effective and passed by experienced individuals. Similarly political networks influences earning management practices and provide more positive benefits to the firms than non-connected firms. The findings are that political affiliations of the directors play important part in accounts and reporting to effect firm performance. The results of this study suggests that as directors are responsible for strategic decision making of the firm, they should have required professional qualifications, experience, experienced but not overly aged, has adequate shares in the firm so as to have interest in the profitability of the firm. They are ethically responsible for their tax paying, have knowledge about their roles and responsibilities and most importantly their involvement in politics.

The study is distinct from traditional studies as it is focusing on moderation effect of political connections and board of director's quality index rather than studying them one by one. Secondly, Board of Director's Quality Index (BOD Index) has been introduced for capturing the maximum effect of directors' characteristics in determining the quality of earnings. Thirdly, a combine effect of proxies of earnings quality has been used for measurements. Lastly, three measures of firm performance (ROA, ROE, and PM) have been considered for robustness.

1.2.2 Political Connection

Earnings quality is most important issue to be analyzed so that how board of director's political connections influence firm performance can been revealed. The reporting quality of politically connected firms is very low (Chaney et al., 2011). This may be because of the reason that politically connected firms hide the true information deliberately and show ambiguous financial information to get extra benefits on account of investors (Leuz et al., 2003) or other reasons might be to get protection and undue favors from political parties in the form of tax relaxations (Faccio, 2006) exemption from paying utility bills (Desai et al., 2011) and prioritized financing access. Accounting discretions and manipulation in numbers is influenced by some underlying causes, one of which is political affiliations. To study the effects of political connections on any firm, Pakistan has most ideal conditions. First, 95% of Pakistani population is Muslim. Following this religious belief honesty and fairness is priority of any management of the firm to achieve

eternal rewards. Therefore manipulations in numbers should be discourage. Secondly, as will be discussed further that more than 50% of the firms are under the influence of political connectedness and there are no legal restrictions for political connectedness of firms (Belghitar et al., 2019). Also, in the last two decades, assemblies and prime ministers were broke up by corruption and political malpractice cases. In terms of freedom of economy, Pakistan is ranked at number 153 in Index of economic Freedom under repressed economies (Heritage 2022). Although NACS (National Anti-Corruption Strategy) was developed to reduce corruption caused by political effects, still it is not working properly. There are many hinders in doing so: including, i) NRO (National Reconciliation Ordinance), ii) exemption of armed forces from accountability, iii) exception of political parties from accountability. Considering the above conditions, Pakistani corporate sector is one of the best setting to study political connectedness, numbers manipulations and its effects at firm level.

None of the prime minister has completed its five years tenure in Pakistan. The reason behind non-completion is corruption and unprofessional conduct in politics. In the past three decades shift of parties is seen in general elections. Majority of the contestants are themselves businessmen or belong to large family business groups in Pakistan.

These business groups of Pakistan include Saifullah Group, Zardari Group, Chaudhry Group, Service Group of Industries, Kohistan Transport, Riaz Bottlers, JDW Sugar Mills, Ittefaq Foundries, Askari group, Sakrand Sugar Mill, Pangrio Sugar Mills, Bachani Sugar Mills, and Bilour Enterprises (Rehman, 2009).

A study by Belghitar et al. (2019) concluded that political connections of owner as well as of the corporate board are of greater importance in studying the effect on firm performance. It greatly helps in making debt decisions, allocate effective taxes and determining the performance of the firm. The financial reporting quality in Pakistani corporate culture is very low. One of the main cause of such un-transparency is political connectedness along with factors such as poor governance, corruptions and judicial ineffectiveness (Ashraf and Ghani, 2005). The code of corporate governance in Pakistan addresses six areas and the first and most important is board of directors.

Here majority of directors may have direct or indirect relations with political parties and politicians. Although all listed companies have tried to act in accordance with code provided by SECP still they are in adoption phase of code of corporate governance with revisions as changing from time to time (S.U, 2017). But no change in thought for political connectedness. The influence of political involvement in Pakistani corporate sector is very obvious but still in literature, there is no evidence of interaction of political connection with earnings quality. So this study is intended to address this gap considering Pakistani non-financial listed firms.

Pakistani economy is in transition state. After 75 years of independence Pakistan economy is still experiencing institutional changes and markets are still developing as there is less access to formal financial markets. To overcome this gap of information, small businesses depend on politicians to get access to formal markets. Corporate finance decisions are dependent on political connections in firms who have any political promoted individual on its board. Therefore political forces are considered as an independent factor in making corporate decisions (Settle, 2016). There are mostly family owned companies and a controlled group corporate sector. Therefore organizational, management and economic theories cannot be applicable in same way in developed and developing countries because of different legislative, political and organizational setups. So the need is to establish a separate mechanism or set of defined procedures which help firm level practices, directors and stakeholder's interests for specified settings.

The motivation behind current study is that directors with political associations interfere in accounting matters to gain benefits such as compensations and directorship extensions. Also this influence of politics in businesses reduces organizational performance. A number of studies have been conducted in order to study the relationship of board of director's political connection on corporate performance and earnings quality on firm performance throughout the globe. Studies have been conducted to capture the effect of earnings quality on firm performance (Huang and Ho, 2020; Zimon et al., 2021) and political associations on corporate performance (Haris et al., 2019) but there is a gap to study their effect simultaneously on performance of firms. Especially, in country like Pakistan there is less evidence of such study. Also, the motivation of "one country study" is applied to

comprehend within-country literature for better understanding of organizations for investors, institutions and researchers.

This current study is attempting to identify that how these connections of board moderates the relationship of earnings quality and firm performance. The investors should select companies on the basis of findings of this study. The results of the study have reported with empirical evidence that political affiliation of board of directors significantly moderates the relationship of firm performance and earnings quality.

Additionally, political affiliations is another reason for corporations to involve in earnings manipulation. Politics and businesses are always being criticized by academicians, researchers and individuals (Faccio, 2006) but not well described (Darmayanti et al., 2020). Political connections are needed by firms either to access bank loans and funds (Haris et al., 2019) enhance financial performance (Kong et al., 2020; Wang et al., 2018), decrease cost of equity (Boubakri et al., 2012) and increase the chances for firms to get more government contracts or subsidies (Tahoun, 2014; Zhang et al., 2014).

On the other hand, firms which are politically connected may get problems such as low financial performances and complex financial reporting quality, less investor protection, corruption, reaction from opposition parties, media and inefficiencies at operational levels (Faccio, 2006). For example Xu et al. (2019) concluded from their study for politically connected U.S listed firms having low earnings quality. Those firms which are located in corrupt regions mange earnings using manipulations such as accrual accounting, sales manipulations and overproduction. Such companies indulge in discretionary accruals to be in line with earnings forecasts.

Political connections by the businesses are categorized as direct connection (declared connections) and indirect connection (undeclared connections). Direct political connections are developed through personal relations between politicians and firms when politicians become member of board of directors or become major shareholder of the firm (Cheema et al., 2016; Faccio, 2006).

Whereas indirect political connections are developed when politicians have friendship ties with senior management of the firm or firms give donations for elections or other contributions for political party campaigns (Faccio, 2006).

1.2.3 Corporate Governance

The objective of corporate governance is to save the rights of all stake holders including managers, shareholders and overall environment (S.U, 2017). A strong governance mechanism especially with efficient boards ensures minimum use of accounting discretions to increase firm value. Board of directors' and their influential role in the firm has recognized as main link between the stake holders of any firm, i.e., managers and shareholders (Tang, 2012). Governance is good when especially board actively participates in adopting continuous developments and if good board of directors is not present the performance of the organization are at risk (Safieddine, 2009).

The top management of any company is responsible for corporate decision making and firm outcomes Hambrick (2007); Carpenter et al. (2004). CEO is the leader who ensures that firm performs in a better way. But CEO's work better in situations when the burnout is less, and if there is greater burnout then it should be managed accordingly Sirén et al. (2018). On the other hand, the executives of the company, when are compensated more, takes decisions and make policies that improves performance of the firm. When executive compensation is disclosed, it is highly valued by financial analyst, credit providers and investors. The work on executives' opportunism is highlighted in the last decade of 1990's.

There are four main functions of any organizational management. These include planning, organizing, leading and controlling. Table 1.1 shows these four functions of management.

Table 1.1: Functions of Management

Governance	**Function**	**Management**
Approval of Plans	Planning	Preparation of Plans
Providing overall Leadership	Leading	Leading those who implement plans
Arranging resources	Organizing	Task division/ Resource usage
Controlling managers	Controlling	Controlling employees

All of the four functions are performed by the board of directors without involving in routine matters of the company. These are categorized strategic decisions which includes long term decisions and management of the organization. Also setting the overall objectives and approving plans of budgets to achieve desired objectives. The arrangement of resources and protection of the rights of all the shareholders is also described under the umbrella of board of directors. This relationship of governance and management is explained in Figure 1.1 (S.U, 2011).

The team of corporate governance regulatory body includes; CEO (Chief Executive Officer), BOD (board of directors), stakeholders including employees, customers, shareholders and management. Once this CG has been implemented in its true sense, it helps to provide liability and transparency in the corporate sector to save the rights and interests of all stake holders, especially of shareholders and more specifically of minority shareholders.

Board of directors' and their influential role in the firm has recognized as main link between the stake holders of any firm, i.e, managers and shareholders. Research studies have shown that quality of board has been correlated with firm performance in different situations. Earnings quality has different relationship with firm performance depending on the opportunistic or beneficial behavior of managers. But on a lighter note, board quality definitely effects accounting choices.

According to agency theory there should be a separation of ownership and control in any organization. This separation diverges the interests of shareholders, managers and top managers. Agency theory indulges board of directors in close monitoring of financial decisions and managerial decisions and ensure the financial reports to be reliable and high in quality. Therefore the roles of board of directors can be listed as

- Close monitoring of financial decisions
- Disciplining the management
- Align the objective of the shareholders with that of the managers
- Evaluating quality of financial reports
- Ensure reliable financial reports
- Provide directions for company processes
- Supervise and evaluate the top management

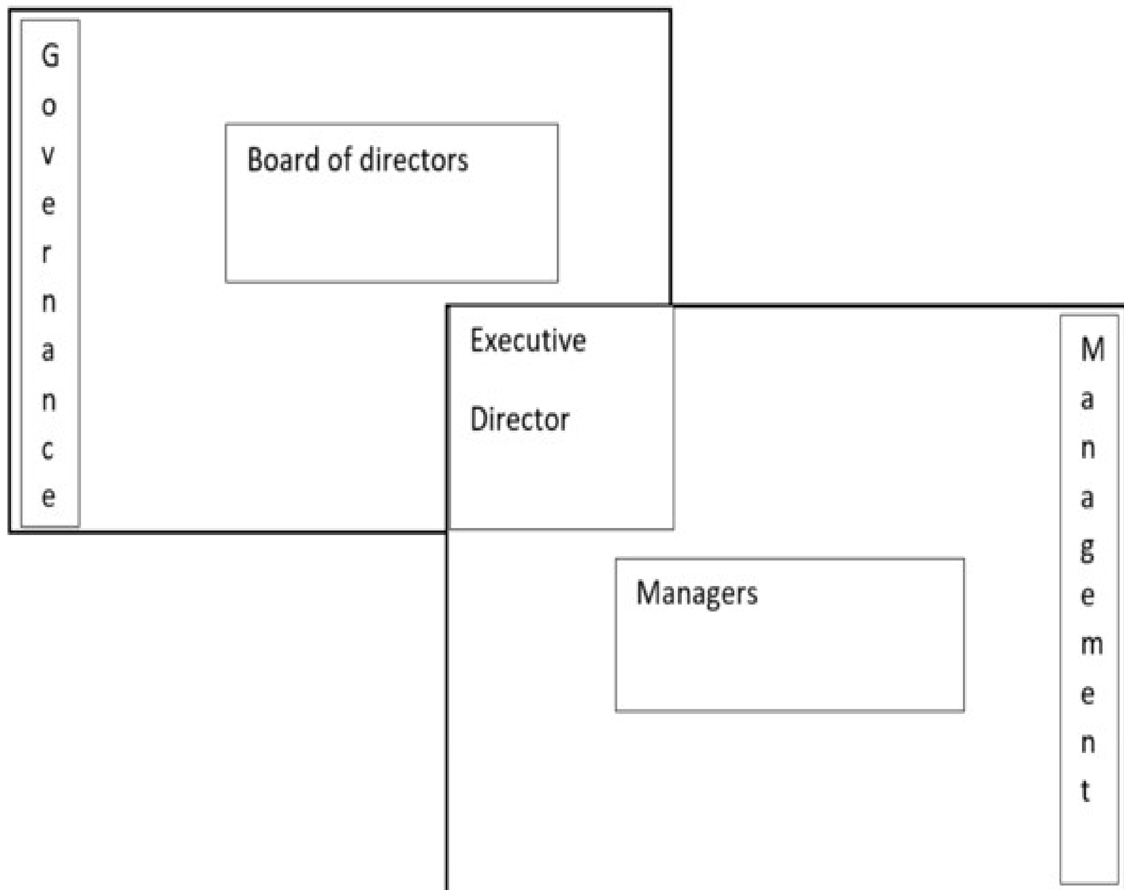

Figure 1.1: Relationship of governance and management

- Establishing rules and policies
- Protecting the rights of all stakeholders of the firm.
- Providing financial directions to management

Along with the above enlisted roles, the most important role is to save the rights of all stakeholders (S.U, 2017).

1.2.4 Development of Code of Corporate Governance

The worldwide financial collapse because of fraud and negligence has made corporations and government to create a system for management around the world. The Asian financial crisis in 1997 raises many questions on the competence and efficacy of governance practice and its implementation. Also the accounting scandals of Enron, One-Tel, WorldCom and Xerox upraised questions on governance practices and wanted a good governance system with transparent financial reporting. It also demanded to emphasize on internal control systems to make them effective and

efficient. After these scandals corporate governance codes were getting importance worldwide. They started focusing on clear financial reporting, presenting guidelines for quality of accounting information, providing rules and regulations to improve accuracy of financial reports.

Considering the importance of governance, the attention has been given to the role of board of directors. It has been focused that directors are responsible for restricting earnings management and to communicate transparent information about company's financial position and earnings (Young et al., 2008). In developed countries the code of corporate governance focuses on shareholders wealth but developing countries are still focusing on stake holders' perspective, especially in Pakistan where there are mostly family owned companies and a controlled group corporate sector. The organizational, management and economic theories cannot be applicable in same way in developed and developing countries because of different legislative, political and organizational setups. So the need is to establish a separate mechanism or set of defined procedures which help firm level practices and stake- holders' interests.

The code of CG in Pakistan addresses six areas and the first and most important is board of directors. Although all listed companies have tried to be compline with code provided by SECP still they are in adoption phase of code of corporate governance with revisions as changing from time to time (S.U, 2017). This code of corporate governance in Pakistan has promoted its implementation by presenting some published information. It is enlisted as below

- Code of corporate governance (2002)
- Omitted provisions in CCG (Code of Corporate Governance) for being part of legal frame work 2002
- Revised code of corporate governance 2012
- Implementation schedule for CCG 2012
- Revised CG regulations 2017
- Listed Companies CG regulation 2017
- Training programs for directors

CG can add number of dimensions in developing countries especially significant measurement for governance in emerging countries of the world including Pakistan. Unfortunately, this is known that Pakistani companies have poor corporate governance practice. Pakistani companies have the most effective and regulated corporate structure but performance is still poor. This study aims to identify some reasons behind this conflict that although companies have adopted CG practices but why still their performance is low.

"The Securities and Exchange Commission of Pakistan" established in 1999 and started working effectively since its start functioning and authorizing the powers and responsibilities of the "Corporate Law Authority". It is working with the core focus on having an eye on the activities of international business environment which have its effects on local business environment both directly and in directly. In order to be at top and meet challenges faced by change in global business, SECP encourages companies to implement good governance. The main source of corporate governance in Pakistan is "Code of Corporate governance" given by "Institute of Chartered.

Accountants of Pakistan" in 1998. "The Securities and Exchange Commission of Pakistan promulgate is also covered in the Companies Ordinance of 1984 and the Banking Companies Ordinance of 1962". Governance is good when especially board actively participates in adopting continuous developments and if good corporate governance is not present the performance of the organization are at risk (Safieddine, 2009). The only way to get better position in the lists of world's attraction is not but corporate governance and corporate social responsibility practices. "Code of the Corporate Governance" is practiced in Pakistan. The amended regulations of listed companies code of corporate governance in 2017 is attached in Annexure 1 and Annexure 2.

Asian corporate structure is family owned structure. Shares to be in hands of controlling shareholders give rise to problem of agency conflict between controlling and minority shareholders (Fan and Wong, 2002). Executives have great influence on accounting values of the company so they can manipulate earnings and if member of the board influences relationship of earnings quality with firm performance

(Tang et al., 2013). Corporate governance is considered for developing and measure firm's success in financial markets. Overall the progress of the industry and corporate sector is important for any country, as well as of the region of that country and ultimately the world. "Security and exchange commission of Pakistan" is very concerned and took steps for the efficacy of CG (corporate governance) in Pakistan.

Additional numbers of the ID (independent directors) in the listed companies in Pakistani companies sector is vital for attaining and achieving a position in global financial market. And the only way to get better position in the lists of world's attraction in corporate governance and corporate social responsibility practices.

"Code of the Corporate Governance" is practiced in Pakistan. Also SECP is unceasingly changing the policies so as to improve company's performance and to attain maximum efficacy and incorporates the change being occurred in financial market of the world as well as for that specific reason to effect local market. SECP codes are very important to attract courtesy of policy makers in both the developed and developing countries of the world. CG can add number of dimensions in developing countries especially significant measurement for CG in a emerging countries of the world including Pakistan. Unfortunately, this is known that Pakistani companies have poor corporate governance of practice of companies. Pakistani companies have the most effective and regulated corporate structure but performance is still poor.

In Public limed companies and private limited companies, shareholders envoys managers their decision rights and take practice to work in the best notice principal's best interests. In companies with different ownership and control structure implies minimum control of shareholders on the decisions of the management. Separate condition between two: agent and principal, CG allows to save the interest of both. When majority of shares are at home and control problem arises, majority of problems get solved by home in its self.

The unstable economic and intervening market forces are not good conditions for implementing. Also self-judgment of managers causes low transparency and clearance in writings, and leading towards unethical practices. Although Pakistan has clear code for corporate governance, yet they do not follow the material provided

as CG codes. Ownership concentration, professional skills, change agents missed, dependency on audits, weak structures of management are important consideration of CG (Ameer, 2013).

The legal system Pakistan (2019 Index of Economic Freedom, n.d.) has significant level of corruption and overloaded courts. Although some of the sectors, especially banking systems are working in a better way with good credit rating, other companies of nonfinancial sectors rely on management, corporate governance mechanism, relationship control process and political connections that limits financing which leads to higher cost of capital than what is required.

The main reason for this legal problems is concentrated shareholding. Majority of the large companies in both the countries is family owned and politically connected. As these companies dominate the corporate sector, major shares remain in home. Family ownership and political control leads to less protection of their minority shareholders. Countries having enforceable law protection economists consider family owned businesses an important system saving tool which helps in reduction of information, less economic and transactions costs.

Analyzing the problematic issue of outside investors, the real ownership concentrated in companies is far away from transparency with prevailing pyramid structure using non-public expectations and private companies with the intention of getting share ownership in group of companies.

Pakistan has significant channeling in business sectors. This is a reason for companies to report their financial and organizational information in their financial reports. This is not only the problem of Pakistan but of all Asian as well as developing countries of the world.

Since independence, there were family owned groups and businesses who regulate majority of businesses. All have strong political connections which helped in their firm functioning. Corporate governance is not a fully implemented system in Pakistan, and started implementing the corporate governance laws and financial markets are in progress attaining stage of impressive growth and positivity. Liberalization reforms such as Financial reforms and trade liberalization reforms from time to time in Pakistan has resulted in rise in economic growth and many good business relations with other countries of the World.

1.3 Research Aim

A number of studies have been conducted in order to examine the effect of board quality on firm performance throughout the globe. But in country like Pakistan there is great concern about the quality of corporate governance. Earnings quality is most important issue to be analyzed so that board of directors must influence firm performance. The aim of the study is to identify that how these qualities of board of directors moderates the relationship of earnings quality and firm performance. Also this study will answer the question that what role political connections plays in relationship of earnings management and firm performance. The investors should consider findings of this study in selecting firms for investment.

1.4 Research Questions

The research will answer following questions

1. Does earnings quality influences the firm performance in non-financial sector firms?

2. Does the index of quality of board of directors alters the relationship between earnings quality and firm performance?

3. Does political connections of firm alters the relationship between earnings quality and firm performance?

1.5 Research Objectives

The objectives of the study is to examine the moderating role of quality of board in relationship of earnings quality and firm performance.

1. To find the impact of earning quality management on firm performance.

2. To find the impact of index of board of directors quality on the relationship of earnings quality and firm performance.

3. To find the impact of political connection on the relationship of earnings quality and firm performance.

1.6 Significance of the Study

Pakistan has important geographical location, climatic conditions and most importantly a dynamic corporate culture and legal framework. The purpose of the study is to present an analysis with empirical evidence that characteristics board of directors is an important measure in determining quality of corporate governance and firm performance in Pakistan.

Earnings quality is defined as "investors' additional uncertainty about the firm's value relative to the manager's own uncertainty". It means that earning quality measures the information asymmetry of management of the firm and investors as a result of accounting discretions and reported earnings. This information asymmetry is common problem in financial firms. When the information is conveyed by the managers it is assumed that the information is correct and market adjusts efficiently to this information. But this is not actually the case, information conveyed by managers is not true what happens in the firm.

Therefore, this study is important in regard that it will provide a result that if quality of board is good then it will lower the need for accrual accounting as policies will be effective and passed by experienced individuals. Investors should select Board of Directors on the basis of described characteristics so that corporate governance can be implemented in a better way whose ultimate goal is to protect the rights of stakeholders and increase the performance of the firm.

The study will be important because Pakistani corporate culture has not a satisfactory investor protection mechanism. They have high information asymmetry and when investor's analyses corporate information, true disclosure of such information will be helpful in analyzing performance by investors and financial analysts. This will in turn be represented in stock market. The study provides another insight that corporate finance decisions are dependent on board characteristics in firms who have any of described characteristics on its board. Therefore board of directors should be considered as an independent factor in making investment decisions. Corporate finance decisions are dependent on political connections in firms who have any political promoted individual on its board. Therefore political forces should be considered as an independent factor in making corporate decisions.

1.7 Contribution of the Study

The study will add to the methodological as well as theoretical studies in the field of finance relating to earnings quality and governance. A detailed explanation of each is explained in the next section.

1.7.1 Methodological Contribution

The accrual models are used by researchers to find earnings quality. The study will be first of its kind to use earnings persistence and earnings smoothness to find earnings quality by creating an index of these proxies. Dechow et al. (2010) has discussed approaches to calculate earnings quality but all of them have used it as simple relation. The relationship of earnings quality and firm performance are inter-dependent as both have ROA as predictor, and have reverse causality therefore the results will be formed using simultaneous equations. Endogeneity is tested GMM technique is applied.

1.7.2 Theoretical Contribution

This study will make following contributions to the literature. First it will add to the Corporate Governance literature that board quality attributes such as board independence, knowledge, tenure, number of directorship held, number of meetings attended by directors will affect the firm.

Similarly it will depict that how political affiliation intervenes the relationship of earnings management and firm performance. The quality of board attributes are directly linked with the performance of the firm, therefore they must be taken in consideration when analyzing quality of corporate governance in a firm. This is the reason behind that good corporate governance practices leads to better performance.

These attributes are more important than ownership styles. Secondly it will add to the dimension that above channel results in the high (low) performance of the firm, if corporate governance practices are good (bad) especially when considering the role of board quality. The study will contribute to Pakistani corporate culture

in determining the role of Quality of Board of Directors in relationship of earning quality and firm performance. Board size and independence along with diversity on board are important factors for any business. As directors are responsible for strategic decision making of the firm, they should have required professional qualifications, experience, experienced but not overly aged, has adequate shares in the firm so as to have interest in the profitability of the firm and ethically responsible for their tax paying and knowledge about their roles and responsibilities. In short compliance with codes provided by SECP. These characteristics of board are important in determining the relationship of earnings quality and firm performance, so director's selection will be accordingly if performance of the firm is to be increased.

This study is adding to the literature of political connection in following ways. First, it is the first study to explore the interaction of political connection of board of directors with earnings quality and firm performance. Secondly, it will analyze the agency theory in politically connected firms of non-financial sector. The use of GMM methodology to study this relationship makes it unique in its literature. The main objective of the study is to analyze that how political affiliation of board of directors effects the earnings manipulations done by managers to present a good or bad profit picture to outsiders. A hand collected data of 114 companies from 2009 to 2019 have been selected for the study. The reason for selecting this period is that after code of corporate governance has been implemented, companies started focusing on board of directors and their attributes such knowledge, experience and more specifically political connections of directors. With failure of this concept econometricians and financial analysts were in deep search for what can be done so that interests of both that is individuals and society can be achieved at the same time. This was resolved with the idea of stakeholder capitalism which is defined as "a system in which corporations are oriented to serve the interests of all their stakeholders." Professionals like managers and CEO are hired for serving the interests of all stake holders of their society.

The study will be equally useful for academicians, investors and regulators to determine the board quality characteristics. The study is also useful for academicians to determine the board of director's quality characteristics to create an index to use

in research. The quality of board created can also be taken as independent variable in creating corporate governance index when studying literature on corporate governance because it is more important than other governance parameters.

1.8 Problem Statement

Earnings quality itself alone does not affect the performance of the firm. A number of studies has been conducted to study its effect on firm performance but it is not only predictor. There should be other variables necessarily effecting this relation and it can be quality of board and political connections because manipulations are done to present better picture of firm performance and attract investors. If any of the variable board quality and political connections are taken in consideration there should be some difference in performance.

The worldwide financial collapse because of fraud and negligence has made corporations and government to create a system for management around the world. In developed countries the code of corporate governance focuses on shareholders wealth but developing countries are still focusing on stake holder's perspective. Especially in Pakistan where there are mostly family owned companies and a controlled group corporate sector. The organizational, management and economic theories cannot be applicable in same way in developed and developing countries because of different legislative, political and organizational setups. So the need is to establish a separate mechanism or set of defined procedures which help firm level practices and stakeholder's interests.

In the light of above discussion problem of the research is stated as "To what extent board of director's quality index, political connections, and earnings quality index have integrating effect on firm performance".

1.9 Summary of the Chapter

In the first chapter of introduction the basic issues of this research have been explained which include Earnings Quality, Corporate Governance, Board of directors characteristics, Political Connections and Firm Performance. It provides

detail for background about the research topic. And elaborates the variables used in the study. This section explains the Situation in Pakistan and describes research questions and research objectives. The next section provides the significance and scope of the study and elaborates the contribution of current study. The last section is about the further organization of this document.

1.10 Organization of the Document

The rest of the document is structured as follows. Section 2 provides the literature review and which developed the research hypotheses, section 3 is explaining data sources and description, variables specification and methodology applied and section 4 is about results and discussion of the study. Last section of this thesis is giving conclusion, policy implications and future recommendations for this study.

Chapter 2

Literature Review and Hypothesis Development

Earnings quality, corporate governance and firm performance has become the topic of discussion after corporate failures. Good quality of earnings with true accounting information and efficient members of organization is considered good for firms and vice versa. Researchers all over the World are working on it in the field of Economics and finance as well as in information technology. Individual investors are also trying to get aware of it and consider it as a good investment (Christopher S.Henry, 2017).

This chapter of the study reviews four basic themes used in this research. These are earnings quality, board of directors' characteristics, political affiliations and performance of firms. This section is providing background information about each of the variable identified above and explains the reasons for planning investigations in this study and underlying motivation for the research. This literature review aims to provide an up-to-date overview of earnings quality, the board of directors' characteristics, political connections and their link with the performance of companies. It analyzes the existing research and explore current trends, theories, and findings in this area.

This chapter identifies and explains the main terms used in the thesis. The chapter is divided in to six sub sections; first section presents the overview of this chapter whereas relationship of earnings quality, governance and firm performance is

explained in the second section. Theoretical associations with respect to related theories is explained in section 3 while studies regarding each variable with firm performance are reviewed in section 4 of chapter 2. This section also leads to the hypothesis development. Section 5 gives an overview about the situation in Pakistan and the last section of this chapter summarizes it.

2.1 Earnings Quality and Firm Performance

Earning management is a process where earnings are manipulated and smoothing is done to give an expected picture of firm performance. It is not a fraud but creative accounting of financial engineering in order to achieve internal, external and market objectives. Internal objective states that firms need to manage earnings quality to meet or beat the targets set by analysts. External objective includes compliance with debt agreements. If the accounting figures are satisfying the conditions, then ok, otherwise companies are liable to pay back the loans. To achieve the market objective, companies should comply with the growth expectations from the market.

It is provisioned to control non- discretionary accruals as allowed by GAAP and discretionary accruals as done by the management. Although BRIC countries companies comply with International Accounting Standard and GAAP principles yet after financial crisis and failure of accounting practices, earning quality has been under great criticism. It is normal trend among companies to manipulate numbers in income statement in order to achieve certain targets (Shahzad et al., 2023). Earnings quality is defined as "investors' additional uncertainty about the firm's value relative to the manager's own uncertainty". It means that earning quality measures the information asymmetry of management of the firm and investors as a result of accounting discretions and reported earnings (Beyer et al., 2019).

Theoretically, the company performs better if it has good quality of earnings. It will improve the financial as well as the market performance in addition to the operational performance. If the performance of the firm is satisfactory, it depicts that its management is working as independent entity and shareholders

have full right to control management and save the interests of their own shares. On the other hand when performance of the firm is not satisfactory, concerning bodies, especially the creditors blame to poor performance of the management. The measures of firm financial performance are interrelated and accumulated that one finds it difficult to find actual problem of low performance (Johnson and Kaplan, 1987; Eining et al., 1997).

Performance of the firm refers to the situation in which the overall objectives of the firm are achieved. These objectives included profitability, corporate social responsibility and saving the rights oof shareholders of any company. It ideally measures the outputs related to company's policices and operation in terms of money and morality. It depicts the financial as wel as economic condition of a company for a certain period of time. It is also be helpful for the comparision purpose of companies in the same industry (Islam, 2014). Profitability is considered as one of the best measures for the success of investment. Investors prefer to invest in companies having higher investment yields. It is also the ability of a business to create earnings as a part of its expenses and other business costs incurrent in the due period of time. Therefore the life and success of a firm depends upon how much income it generates from its business operations. In start of business there are certain aims and objectives are set. The main objective of financial management is to only maximize shareholders wealth, so profit is the main determinat of success of a business investment and financial performanxce (Alnodel et al., 2018).

Asset turnover ratio is considered an important ratio to analyze management efficiency. It is defined as efficiency ratio is the ability of a company to measures a company's generated sales from its assets and comparing achieved net sales with average total assets. It helps in analyzing that how much a company is capable of generating its revenue.

Higher the value means that company has efficiently utilized its resources and there is not much need of manipulating earnings when reporting. The impact of ROA in interpreting the discretionary accruals is important. According to Fairfield and Yohn (2001) "changes in asset turnover" are the source of predicting future profitability of the firm. If these manipulation practices are done constantly for executives personal benefits or to increase performance of companies then it will

have effect on stock market performance which has an important relationship with overall economic environment of the country (Ibrahim and Aziz, 2003; Kandir, 2008; Broadstock et al., 2011; Barakat et al., 2016).

In literature, earnings management and reporting quality has been the topic of discussion since decades. Healy and Palepu (1993) was amongst the pioneers who highlighted management practices of manipulating accounting information for the purpose of getting higher bonuses and compensations. The study reported a significant relationship between earrings management (accounting accruals) and bonus plans centered on earnings. Since then, researchers started to use accounting accruals as a proxy for earnings quality. But in using accruals as a proxy, it should be taken in consideration that it has two parts, i) discretionary accruals and ii) non-discretionary accruals. So where accruals are used as a proxy of earnings quality, non-discretionary accruals are constant ultimately.

Managers indulge in earnings management practices to effect share prices and get additional benefits from management buyouts (DeAngelo, 1986). Another study by Jones (1991) used linear regression technique and residuals were considered as a proxy for discretionary accruals. The study concluded that firms engage in earnings manipulations to show lower earnings and get support from the local government in the times of import relief in the US. This model was refined further as "modified Jones discretionary accrual model" and being started to use as the most widely used model for calculating earnings management. Management also involve in number manipulations as a response towards their external environment. In higher uncertain environmental conditions there is higher inconsistency of unmanaged earnings or discretionary accruals. Firms which operate in high uncertain environment show significantly higher difference between reported earnings and variance of unmanaged earnings (Baber et al., 2011; Ghosh and Olsen, 2009). Also the firms in higher uncertain environment have positive relation of difference in reported earnings and discretionary accruals. Firms that operate in high uncertain environment, accounting accruals are used by managers with an intention of reducing the variability in reported earnings. Although IAS and IFRS accounting standards gives managers an option in calculating earnings (estimation of bad debts and depreciation), there are chances of exaggerating numbers

for attracting investors (Shaique et al., 2017).

Accounting discretion is mainly done by companies who are at the verge of bankruptcy and financial distress, low reputations, low profitability, low asset and sales return (Spathis et al., 2002). Another reason to indulge in earnings management practices is to influence increase in stock prices before initial public offerings IPOs (Manzalawy and Rwegasira, 2013).

There are two parts of firm's earnings, the accruals and cash flows. Accruals can be defined as "adjustments that must be made before a company's financial statements are issued". These are actually collection of expenses as well revenues being recognized in reported earnings. In determining the survival and success of the firm cash revenues should be excessively greater than its cash disbursements. It depicts that "net realized cash flow" can also determine firm performance. But when these cash flows are evaluated they may face some problems. In order to avoid problems of time and matching GAAP provides accruals measurement to change cash flow recognition timing in earnings on the basis of TAPRRM (twin accounting principles of revenue recognition and matching). This allows the process of accrual accounting to alleviate the problems of matching and time integrated in cash flows with an intention of true representation of firm performance in the form of earnings.

Managers have their judgments in preparing financial statements. Managers are the sole authority who can influence the key accounting items and subjective decision makings to manipulate profits. Accounting discretion is mainly done by companies who are at the verge of bankruptcy and financial distress, low reputations, low profitability, low asset and sales return (Spathis et al., 2002).

Accrual accounting can be a reason to create complications at discretion of the manager such as hastening the revenues or postponing expense recognition. This would be done as to manipulate earnings or signal any private information to shareholders of the firm (Healy and Palepu, 1993). The information asymmetry amongst investors and managers is done with the intention of implementing discretion above accruals that cannot be observed and their intention cannot be judged, assessed or shown on the basis of accounting information. The quality of earnings in any firm also get effected by information conveyed to the investors in

the form of dividend announcements. Dividend are not steadfast signal of earnings but only a way to determine the decreased level of investment and it is influenced by managerial over optimism and cash assurance (DeAngelo, 1986). These announcements are not very informative in the case especially when investors have a question about the credibility of financial reporting methods of company's managers. The dividend paying practice of companies predicts their earnings of future (DeAngelo et al., 2009). If the dividend remains unchanged the earnings forecasts are negative for the current and future year (Best and Best, 2000). The earnings of companies which declear dividend in their statements are positively influenced and vice versa. This earning information is related to past and future performances shown in the market. As the forecast of earning is changed by the manager, it is reflected in market (Healy et al., 1987). The real earnings of the firm are greater than forecasted future earnings of those firms having greater pre dividend changed earnings. The amount of information declared by dividend announcements is dependent on how credible and reliable the prior information is Best and Best (2000). Their study reports that whenever a firm initiate (increase) dividend. It means that the firm has strong financial position while omission (decrease) in dividend gives a signal of weak financial position of the firm.

Agency conflict that occurs between manager and shareholder can be increase or decrease through dividend payout. When manager pay more dividend to the shareholders of the firm it will move stock prices in positive direction and on the reverse mean lower dividend will decline stock price. This agency conflict idea was further extended by Jensen (1986) who told that agency cost is a phenomenon when a firm has too much funds and managers use them inefficiently by giving additional benefits to employee or pay more for acquisition.

Dividends are the most recognized tool for identifying a company's performance and loved by investors because they are the actual income of investors and investors are not obliged to pay taxes on some categories of dividends. Investors also get bonus shares or new shares as dividend which increases the portfolio investment for investors. An active investor who has a portfolio of investment will definitely prefer high dividend over low dividend with a condition that dividend payments are constant for all companies and all dates. In the same way if dividends are initiated

or paid after some interval of time, it will cause share price to rise. Companies which do not pay dividends, or have low payout reinvest that amount to increase value of firm. And companies which pay dividend adopts a particular dividend policy. These dividend policies are adopted under clientele effect. It is a policy decision to attract particular client.

A dividend payout policy of the company defines the investor's attitude towards company's expectations of earning. It follows the cliental effect which says that if payout policy of a company changes, it will change the investor only and not the value of stock. But it is not necessary that company paying higher dividends is good in earnings.

2.2 Proxies to Measure Earnings Quality

In literature the work of (Dechow et al., 2010) is considered to be the most important study when working on earnings managements and earnings quality studies. They have reviewed more than 300 studies regarding proxies to measure earnings quality and suggest that each proxy has its own significance to be applied. The selection of measure also depends on the relationship with other variables of the study. In the current study, we have selected three proxies of earnings quality and used them in the form of an index which is explained in the methodology section.

2.2.1 Accruals

Managers usually indulge in discretionary accruals when they face environmental uncertainty. A study by Ghosh and Olsen (2009) focuses on the response of management towards their external environment. Their study suggests that in higher uncertain environmental conditions there is higher inconsistency of unmanaged earnings or discretionary accruals. They suggested that accruals are used by managers as a cushion against the effect of reported earnings of uncertain environment. Firms which operate in high uncertain environment show significantly higher difference between reported earnings and variance of unmanaged earnings. Also the firms in higher uncertain environment have positive relation of difference

in reported earnings and discretionary accruals. The main findings of their paper shows that firms who operate in high uncertain environment, accounting accruals are used by managers with an intention of reducing the variability in reported earnings (Baber et al., 2011).

Discretionary accruals are a signal of managements' private information. Mangers use accounting accruals with an intention of reducing the inconsistency of firm's unmanaged earnings to share their private information relating to performance of the firm at a specific period of time to reduce risk perceptions. Accounting discretion is the result of poor governance quality but financial numbers are played by the accountants to show higher profit, so as to add compensation to their own job status as well as to their peers. The relationship between accounting discretion and governance practices show managerial opportunism because of unresolved agency problem. Managers get inducements with the intention of reducing inconsistency and variability in the earnings. GAAP (Generally Accepted Accounting Principles) has provided managers with the provision to give choice and flexibility in retorting organization's environment during the process of accounting accruals.

Environmental uncertainty imposes variability in earnings of the firm that are adjusted by discretionary accruals on the basis of Manager's own preferences. This would result in a better system of reported earnings in the form of managed earnings which ultimately provide less variability in earnings. Bhagat and Bolton (2008) studied performance not for 1 year but for next 3 years. They are of the view that if governance effects performance, that should last for several years.

2.2.2 Earnings Persistence

Earning persistence is another proxy used for earnings quality. Earnings are considered as higher quality earnings when these are persistent. Investors and analysists consider these persistent earnings as a predictor of future fim performance and forcast investment decisions (Agugom, 2018; Liu, 2018).

Earnings persistence confirms that the firm is performaing according to the goals and involvement of any king of non-opportunistic goals. It actually measures the effect of earnings innovation by the management on forecasted earnings of the

firm. According to Schipper and Vincent (2003) earnings persistence is defined as “a measure of earnings quality revealing the sustainability of earnings.” The underlying concept of esrnings persistence is that there is recurrence in earnings and it reveals the financial position of the company very precise, accurate and unbiased. The earnings and profitability of the firm has a positive effect on performance of the firm. An important factor in increase of profitability is through increasing shareprice of the firm.

Good quality of earnings improve the financial as wel as the market and operational performance of the company performance of the company. There are many evidences in literature that earnings persistence significantly effects the firm performance (Aguguom et al., 2019).

2.2.3 Earnings Smoothing

Earnings smoothing is another proxy used for earnings management. It is defined as “manager’s attempt to intentionally dampen the fluctuations of their firm’s earnings (Beidleman, 1973).” According to early studies of income smoothing by Eckel (1981) and Albrecht and Richardson (1990) income smoothing has two streams. A natural smoothing and other is intentionally done by management. Kirschenheiter and Melumad (2002) concluded that income smoothing is a tool used by managers to reveal inside information about future earnings. Another study by Tucker and Zarowin (2006) explained this term as negative correlations between change in discretionary accruals and change in pre-managed income. They concluded that more negative correction shows greater income smoothing assuming that there is no measurement error problem due to unobservable behavior of managers and markets are efficient. Actually it is helpful when private information is conveyed in the market regarding future earnings. It is done but that must be reversed in the coming period i.e., increasing must be reversed by decreasing Baber et al. (2011).

Income smoothing is actually helpful when private information is conveyed in the market regarding future earnings. It is done but that must be reversed in the coming period i.e., increasing must be reversed by decreasing Baber et al.

(2011). Effective corporate governance would help to have an eye on management's activities and manipulation which would help to depict leverage which in turn helps to get financing on better terms (Eccles et al., 2014).

Information asymmetry is the factor that would increase the shareholder concern about their investments if percentage of executive compensation is high in times when company invests in projects of negative NPV and high short term profits (Chava and Purnanandam, 2010). Higher the free cash flows, higher is the agency cost because management would use those cash flows for self-defined purposes or projects of their own interest in order to reinforce their reputation (Pinkowitz et al., 2006; Dechow et al., 2008).

2.3 Board of Director Quality and Firm Performance

Corporate governance (CG) started to be emerge after the "Sarbanes-Oxley Act in the U.S.". It focuses on restoring public confidence in companies and financial markets. Corporate governance is a broader term under which many sub sections are covered such as reporting frame works, audit committee, ownership structure and most importantly board of directors (S.U, 2017). Small firms have less skilled management therefore they tend to employ more educated and experienced directors (Zahra and Pearce II, 1990). The role of board of directors in controlling accounting frauds has been highlighted by Beasley (1996). According to the study, higher percentage of outside directors and their large tenure helps to control accounting frauds. Effective corporate governance would help to have an eye on management's activities and manipulation which would help to depict clear accounts which in turn helps to get financing on better terms (Eccles et al., 2014).

A study by Pugliese and Wenstøp (2007) contributed from their study that board quality is more important attribute toward strategic decision making of small firm. The characteristics of board of directors include board size, board independence, directors' ownership, gender, professional knowledge and CEO duality. Larger

board size increases the chance for greater diversity and independence (Ciftci et al., 2019). Effective involvement of board in decision making and policy formation requires skills and in depth knowledge for better performance. However, number of meetings attended by directors have no significant effect on performance of firms in Colombia (Moreno-Gómez et al., 2018). Equally, a diversified board of directors with increased board capital is more socially responsible, leading a company towards high performance (Ayuso and Argandoña, 2009). If compensation to the directors is higher than average employee in the company, there exists a strong effect on firm performance (Sheikh and Alom, 2021).

CG literature is very vast and has been studied in link with finance, marketing, management and education. Early literature discusses few components such as percentage of non-executive directors and CEO duality. Different firms have different practices for governance characteristics, therefore it cannot be summed up in a single number. Bebchuk et al. (2009) clarified that every firm has its own ways to cope with agency problems. After the development of research repositories and highlighted importance of CG in firm performance, researchers have started using composite governance scores. Most widely used governance composite scores are G-Index (Gompers et al., 2003) , Gov-Score (Brown and Caylor, 2006), E-Index (Bebchuk et al., 2009). Although these indices are created with great effort but studies have shown that there is no predictive power and no consistent relationship for governance indices (Bhagat and Bolton, 2008) (Daines et al., 2010). After these governance scores, researchers start focusing on the most important part of corporate governance and it is declared as board of directors. So the focus of research was on creating an index for board of directors attributes. Bin-Sariman et al. (2016) developed their own BOD's quality index. It is a composite measure of 6 specific characteristics of BOD's quality of non-financial firms listed on MSM (Muscat Security Market).

A study by **?** board of director's quality index was created on Brazilian firms. He pointed out a major issue in corporate governance that board of directors are contributing towards maximizing shareholders value, therefore they must be studied independently and their joint effect must also be considered. Although this index is subjective in nature and depends on geographical attributes, yet this

index helps and supports researchers, management and other economic agents in evaluating quality of board of directors in specific setting.

2.3.1 Board Size & Financial Performance of an Organization

Evidence suggests a correlation between an organisation's BOD size and profitability (Wang et al., 2020). Shao (2019) analysed Chinese firms from 2001-2015 to see whether there was a link among board size and company success. Very tiny and very big boards were shown to have a U-shaped association with business productivity, with tiny boards being linked with worse efficiency and poorer stock profits than their average-sized counterparts. They stated that boards that are too big have coordinating issues and lack authority, while boards that are too small lack the competence and diversification required to make appropriate judgments (Shao, 2019).

The effect of board size on the organization's success was studied by Beji et al. (2021), who looked at French businesses. Specifically, they discovered that a smaller proportion of independent executives on a board was inversely correlated with a company's profitability (Beji et al., 2021). In similar research employing data from Chinese businesses, (Makhlouf et al., 2018) investigated the connection among board size, company management, and company profitability. They discovered that boards with an increasing share of independent members have a better outcome than those with smaller boards (Makhlouf et al., 2018). El-Habashy (2019) also looked at the implication of board composition on business success, but in the domain of Egyptian enterprises, they found that having external and independent board members were positively linked to better company results. The researchers believed that these qualities on a board would result in higher business output via enhanced surveillance and decision-making (El-Habashy, 2019).

Ciftci et al. (2019) emphasised the connection among board remuneration and company productivity for a sample of Turkish enterprises, and they found a favourable association between the two. The authors stated that directors might be motivated to do a better job of observing and making decisions if compensated for

their efforts to serve on the board (Ciftci et al., 2019). Lemma et al. (2021) investigated the connection among corporation management and business productivity in Africa, and they found that smaller board sizes were related to higher success. Ararat et al. (2017) looked at the role of board structure on corporate profitability for a group of Turkish enterprises and found that independent members tempered the favourable role of board size in profitability. As per the researchers, a bigger board can only enhance a company's success if it has many independent members who can bring new ideas and bolster oversight (Ararat et al., 2017).

2.3.2 Board Compensation & Financial Performance of an Organization

Members may be encouraged to oversee and give recommendations if they are compensated for their time on the board. Much research has shown a causal link among board remuneration and business success. An increase in board remuneration has been linked to improved business success (Almarayeh, 2021). Higher remuneration for the board of directors has also been linked to improved business success (Farooq et al., 2022). Board remuneration was shown to positively affect business success in Pakistan by Farooq et al. (2022). According to the research, higher board remuneration may have a good effect since it encourages recruiting more qualified candidates and increases their incentive to oversee leadership and provide sound counsel. Makhlouf et al. (2018)found a favourable link among increased board remuneration and business success. The research shows that directors might be motivated to pursue smarter judgments for the firm if they are paid more. The stakeholder theory lends credence to this position by positing that directors' goals are better aligned with the business's when they are paid more (Makhlouf et al., 2018). Board remuneration and its effect on company success were analysed for a group of Malaysian businesses in research by Bhuyan et al. (2022). Increased board remuneration levels may result in improved supervision and judgment by directors, as shown by the researchers' finding of a favourable association between board remuneration and business success. (Shukeri and D Alfordy, 2022) analysed the influence of board remuneration on organisational success for a selection of Israeli enterprises. Increased board remuneration levels may

motivate members to operate more effectively and enhance their supervision and judgment skills, as shown by the author's discovery of a positive link among board compensation and organisational outcomes (Shukeri and D Alfordy, 2022). Sheikh and Alom (2021) looked at how much of an impact board remuneration has on a selection of Bangladeshi companies' bottom lines. The researchers discovered a correlation between salary for the BODs and the organisation's success, indicating that greater pay may improve productivity. On the other hand, they discovered that the positive association was more robust for bigger organisations, indicating that the impact of board remuneration may vary with business size (Sheikh and Alom, 2021).

The role of Board Remuneration on Business Success in a Panel of French Companies was studied by Zoghlami (2021). According to the researchers' findings, there is a link among board remuneration and business success, and they speculate that a greater remuneration level may result in enhanced productivity. The researchers did find a favourable correlation between board remuneration and business performance, but they discovered that this association was larger for companies with smaller debt. Harjito et al. (2021) researched the connection between board remuneration and company success across a cross-section of Indonesian businesses. They discovered that a high level of remuneration for the board was inversely related to the company's success. But they also discovered that the negative association was attenuated in companies where the boards were more autonomous, indicating that board autonomy might cushion the blow of excessive pay (Harjito et al., 2021).

2.3.3 CEO Duality & Financial Performance of an Organization

The term "CEO duality" describes a scenario in which the CEO also retains the post of chairman of the BOD. CEO duality and business success are studied from two theoretical vantage points: agency theory & stewardship theory. Although widespread, this policy has been hotly debated by experts in the business industry (?). In the case of Chinese listed enterprises, Mubeen et al. (2021) showed that

CEO duality negatively affected company success. The authors argue that having a CEO serve in a dual capacity might reduce the board's capability to effectively oversee and guide the CEO, which can lead to subpar results (Mubeen et al., 2021) . Almashhadani and Almashhadani (2022) looked at how having two CEOs affected a group of companies from the Middle East. According to the authors' findings, companies where the CEO simultaneously served as the board chair underperformed those in which different individuals held the two roles (Almashhadani and Almashhadani, 2022).

Hsu et al. (2021) evaluated the role of a CEO duo on a group of Taiwanese companies' bottom lines. They discovered a negative link among having one person serve as both CEO and board chair, implying that companies with distinct CEOs and board chairmen fared better than those with a single person in both roles. Although they found a negative link among CEO duality and organisational output, they discovered it to be lower in companies with more autonomous panels (Hsu et al., 2021). Uyar et al. (2021) research looked at how having two CEOs affected the companies and discovered that having two CEOs is detrimental to a company's success and that this effect is exacerbated in businesses with already increased agency expenses (Uyar et al., 2021) .

Mititean (2022) looked into how having two CEOs affected a group of companies in Romania. The researchers discovered a positive correlation among multiple CEO roles and company success, indicating that businesses led by executives who also held the position of board chair were more successful overall. The researchers did find a favourable correlation between CEO duality and performance, but they discovered that it was less in companies with more autonomous boards (Mititean, 2022). Voinea et al. (2022) also studied the role of having two CEOs for a cross-section of Chinese companies. According to the study's findings, having two CEOs at once may have a detrimental effect on an organisation's productivity, and that impact is magnified for state-owned businesses compared to private ones. They argue that having a chief executive officer in two roles might hurt the company's performance via worse company management and lower efficient management supervision (Voinea et al., 2022). Researchers Ali et al. (2022) looked at a cross-section of Pakistani companies to see whether having two CEOs affected

their bottom line. According to the authors' findings, companies where the CEO simultaneously served as the board chair underperformed those in which different individuals held the two roles. They also discovered that the unfavourable association was attenuated in companies with highly independent boards, which suggests that boards' autonomy might help cushion the blow of having a CEO do both roles. The research as a whole implies that dual CEOs are bad for business. Agency expenses, management, and independent directors are all potential context-dependent moderators of the magnitude of the adverse effect (Ali et al., 2022).

2.3.4 Director's Independence & Financial Performance of an Organization

Independent directors' influence on a company's bottom line has been studied from various conceptual vantage points, incorporating agency and resource dependency theories. New empirical analysis supports the idea that keeping independent members on a board enhances a company's bottom line (Rashid, 2018). Board independence influences business success, according to the research on Indian enterprises conducted by Pareek et al. (2019), and this effect is more present in companies with a larger proportion of ownership concentration. Independent directors were shown to have a significant role in strengthening control systems and reducing agency concerns, and this importance was found to be even greater in companies with a less robust governing framework (Pareek et al., 2019).

According to research by Reguera-Alvarado and Bravo (2017) having several impartial board members may greatly improve a company's bottom line. An increasing proportion of independent directors was associated with a better ROA & ROE for a company. The research also indicated that companies with poorer company administration frameworks benefited more from having independent directors on the board, demonstrating the vital role of independent directors in enhancing company administration (Reguera-Alvarado and Bravo, 2017). Moreover, Koji et al. (2020) determined the role of independent directors on organisational outcomes within the setting of family enterprises in Japan. According to the results, the

ROA and ROE of family businesses with a larger proportion of independent executives were greater than that of family businesses with a smaller proportion of independent executives. According to the research, independent boards promote openness and integrity by serving as a check and balance in family businesses plagued by agency difficulties (Koji et al., 2020) .

The existence of independent executives on a company board has a substantial role in company success, especially in the context of ROA & ROE, according to an investigation by Almoneef and Samontaray (2019) on the implications of independent executives on the monetary results of Pakistani companies. According to the research, independent directors have a direct link with organisational outcomes as they act as a check on leadership and increase openness and responsibility inside the organisation (Almoneef and Samontaray, 2019).

2.3.5 The Diligence of Directors & Financial Performance of an Organization

The agency theory provides the primary conceptual viewpoint on the connection between directors' attentiveness, the frequency of meetings they participate in, and corporate output. According to the latest research findings, there is a direct link among the frequency of meetings directors participate in and their company's financial success (Ben Barka and Legendre, 2017). Researchers Chen and Keefe (2020)examined how directors' due diligence affected Chinese businesses' bottom lines. The findings revealed that business success (as assessed by ROA & Return on Sales) was correlated favourably with director attentiveness.

They also discovered that enterprises with smaller degrees of ownership concentration benefited more from the correlation among director attentiveness and company success (Chen and Keefe, 2020). Directors' due diligence & company success were also investigated by Shaji and Shajahan (2020) in their research of Indian family businesses. Nine hundred forty-eight family businesses were utilised as a sample for the research. Findings revealed that return on investment (ROI) and Tobin's Q were positively linked with the level of diligence board members showed (Shaji and Shajahan, 2020) . It has additionally shown that family businesses

with more severe agency difficulties benefited more from directors who exercised more due diligence. Altass (2022) researched the effect of directors' due diligence on the profitability of Saudi businesses. In all, 42 Saudi businesses were chosen as a representative for the report's 2014-2018. The findings revealed that ROA & ROE were both positively correlated with director attentiveness. They also discovered that organisations with greater degrees of difficulty and smaller degrees of ownership concentration benefited more from directors' due diligence (Altass, 2022). Research by ALJAAIDI et al. (2021) looked at how directors' diligence affected the credibility of financial statements issued by Saudi corporations. The research used data from 32 companies in the United States from 2012 to 2019. The researchers noted a favourable correlation between director attentiveness and the credibility of financial reports, as judged by the frequency with which accounting information needed to be restated and the effectiveness of internal checks (ALJAAIDI et al., 2021). Researchers also discovered that organisations with more ownership concentration had a more robust positive association among director attentiveness & excellent financial reports. Khan and Wang (2021) researched how directors' due diligence affected the level of risk taken by Chinese businesses. 17 Chinese companies registered from 2008 to 2019 on the Chinese stock markets were used as research representatives. In this study, the authors discovered that director attentiveness is inversely correlated with the level of risk-taking conduct at the business, as evaluated by the variability of stock gains and the chance of significant damage (Khan and Wang, 2021). Furthermore, they discovered that enterprises with larger degrees of state ownership showed a more pronounced negative link among director attentiveness and risk-taking conduct.

2.3.6 The Expertise of Directors & Financial Performance of an Organization

The connection between board member experience and company success is being studied. Schnatterly et al. (2021) researched the connection among director competence & business success. In this study, the researchers noted that a greater degree of director skill, as evaluated by board tenure, degree, & previous executive expertise, was correlated with increased company success. ROA and ROE

were shown to be strongly correlated with board tenure as a proxy for expertise, whereas ROE was also found to be favourably correlated with a degree. Both ROA & ROE were higher in companies where the executives had more prior management experience (Schnatterly et al., 2021).

Ramadhania et al. (2021) researched the effect of director economic knowledge on company success. Findings indicated that companies with financially secure board members had greater excellent financial reports, as shown by lower profits administration and improved auditing standards. They also discovered that companies with financially savvy board members had a reduced debt cost (Ramadhania et al., 2021). Kanakriyah (2021) researched the connection among board competence and business success. They discovered a favourable correlation between business effectiveness and board competence, as defined by the proportion of external directors with industry-specific experience. They also discovered that enterprises with inadequate internal auditing processes benefited more from board expertise's favourable impact on business effectiveness (Kanakriyah, 2021).

Tejerina-Gaite and Fernández-Temprano (2021) looked at the connection between board members' technical knowledge and their companies' success in an era of rapid digital change. They discovered that businesses run by directors with a deeper understanding of technology spent more on R&D, filed more patents, and produced more innovations overall. The researchers also discovered that organisations participating in high-technology sectors were more likely to benefit from the director's technological expertise's favourable impact on development (Tejerina-Gaite and Fernández-Temprano, 2021). Al-Matari (2022) conducted an analysis of director skill's effect on business success.

2.3.7 Knowledge of Directors & Financial Performance of an Organization

Over the last few years, many studies have examined how board members' expertise impacts businesses' bottom lines. Kao et al. (2019) claim that directors' expertise is a major component in determining a company's success. They looked

at data from companies in Taiwan between 1997 to 2015 and found that boards with more knowledgeable members had more successful businesses.

The researchers argue that directors who are well-versed in a company's activities are in a better position to make strategic choices for the business (Kao et al., 2019). Directors with greater knowledge & higher diverse job expertise benefit favourably from business success, as shown by Habtoor (2022), who evaluated a sample of 12 listed banks in Saudi Arabia from 2009 to 2018. The research suggests that educated directors are more capable of navigating complicated and creative company contexts (Habtoor, 2022).

As assessed by educational status and domain expertise, director expertise was shown to favourably affect business success in Vietnam-listed enterprises by Nguyen and Huynh (2023). In their view, boards with experienced directors are better positioned to make strategic choices, leading to improved performance (Nguyen and Huynh, 2023). The effect of director knowledge and expertise on Iraqi companies' success was studied by Star (2022).

Executives with the appropriate mix of expertise and schooling were shown to have a favourable effect on company success, demonstrating that directors' education & competence play a substantial role in corporate governance (Star, 2022). Directors' qualification and company success in Indonesian businesses was studied by Noliviasari and Siswantoro (2022).

Higher-educated board members were shown to benefit company success, demonstrating that board members' expertise is crucial to making sound decisions (Noliviasari and Siswantoro, 2022). Yet, other research has revealed no correlation between board member expertise and financial returns for the company. Examples include Kanakriyah (2021), who looked at 85 companies traded on the Jordan Stock Exchange between 2015 and 2019 and found that directors' expertise did not significantly affect their bottom line. According to them, other criteria, including the freedom and attentiveness of directors, could prove more important in determining a company's success (Kanakriyah, 2021).

The effect of board director qualifications and experience on creativity in corporations of developing nations was studied by Kabara et al. (2022). They discovered that organisations with directors with previous industry expertise and suitable

qualifications were likelier to innovate, indicating that director learning is critical for businesses to innovate and compete (Kabara et al., 2022).

2.3.8 Diversity of Directors (Gender & Religion) & Financial Performance of an Organization

There has been a surge in research on the correlation among board diversity and financial success during the last two decades. There has been conflicting evidence from research investigating the link between female directors and company success.

Moreno-Gómez et al. (2018) used a sample of UK companies to analyse how female board representation affected company success. ROA & ROE were shown to be greater for organisations with a larger ratio of females as their executives. The researchers argue that having women as directors might result in more diverse viewpoints and a fairer decision-making procedure (Moreno-Gómez et al., 2018).

Lestari (2021) investigated how having women as directors impacts business growth in the Indonesian industry. Results showed that organisations with increasing female executives had a higher ROA and ROE. Women's representation on boards, the researchers argue, might boost openness, responsibility, and judgment (Lestari, 2021).

Yet other research has shown no link among boardroom diversification and financial success. Hedija and Němec (2021) researched the correlation between female representation on boards and company success across one thousand Czech travel agencies. ROA & ROE were used as productivity metrics, and both were shown to be unrelated to the female proportion on a board.

The researchers opined that this lack of correlation might be because female board representation does not automatically contribute to a more efficient panel or good decisions (Hedija and Němec, 2021). While some research has suggested that having women on boards of directors improves productivity, other investigations have discovered no such correlation. However, Alfar et al. (2023) observed a different pattern, concluding that having women as directors' favours business success, but this effect vanishes when other characteristics, including board number and

autonomy, are considered (Alfar et al., 2023). Numerous investigations have examined how having non-Muslim executives affects the success of businesses in nations where Muslims represent a considerable proportion of the population. For instance, Hassan and Marimuthu (2018) observed that firms with non-Muslim directors performed better.

According to the researchers, a company's bottom line might benefit from a more diverse BOD since it can access fresh concepts and connections (Hassan and Marimuthu, 2018). Similarly, Haron (2018) looked at how having non-Muslim directors affected the success of Malaysian businesses.

Researchers concluded that companies with non-Muslim board members performed better. The researchers argue that having non-Muslims on boards may enhance judgment and the bottom line because of their breadth of perspectives (Haron, 2018).

In contrast, Habtoor (2022) found no statistically significant correlation among the ratio of non-Muslim executives and the profitability of Saudi companies. The researchers hypothesised that the lack of statistical significance might have been caused by the report's limited scope (they only examined one nation).

The participation of non-Muslim members in BODs in Malaysia has a favourable influence on business efficiency (Ooi and Hooy, 2022). The researchers argue that having non-Muslim members on the board may result in better judgments and overall business success.

2.3.9 Age of Directors & Financial Performance of an Organization

Many analyses in the last years have examined how the average age of BODs affects an organisational bottom line. When looking at the correlation among director age & company success, some research has shown a positive correlation, whereas others have indicated a negative or no correlation.

According to research by Brahma et al. (2021), director age has a U-shaped association with company success. Younger and older directors are linked to poorer

output, whereas directors in the middle of their careers are linked to better results. The favourable impact of middle-aged directors on business output was also greater for companies with poorer human resources (Brahma et al., 2021) . There is a non-linear connection among the age of directors and company success, according to research by Potharla and Amirishetty (2021). The research showed that a younger board was related to a higher output but that the older the board, the worse the results.

The researchers demonstrated that this is due to the complementary roles that younger and older directors play on boards: the former brings in new ideas and views, while the latter gives stability and expertise (Potharla and Amirishetty, 2021). Similarly, Sattar et al. (2021) discovered that increasing the mean age of directors was associated with better financial results.

The research reveals that elderly board members may benefit from better decision-making and systematic approach due to their greater expertise, education, and expertise. Furthermore, directors with more experience may have built up useful networks and contacts throughout the years (Sattar et al., 2021).

Although some research suggests that older directors are better at supervising and adjusting to shifts in the workplace, Hsu et al. (2021) discovered a negative link among director age and company output. This research also indicated that organisations with a reduced level of ownership concentration were more vulnerable to the detrimental effects of having older directors.

Mishra (2020) discovered that the age of executives has a non-linear connection with company productivity, including younger and older directors having an adverse influence on company success. According to the research, a lack of prior experience may account for the detrimental impact of younger directors, while a deterioration in mental and physical capacities may explain the bad impact of older directors (Mishra, 2020).

Directors above the age of 65 performed worse than directors under the age of 65 in implementing new technology in enterprises (Livnat et al., 2019). The authors postulate that the reason is that directors in their senior years are less likely to take risks and embrace innovation.

2.3.10 Directorship in Other Companies & Financial Performance of an Organization

Numerous research has looked at how having numerous directors affects a company's bottom line. The link among the ratio of board seats and business productivity is one element of directors with numerous roles that have been studied.

Saleh et al. (2020) used companies traded on the Palestine stock market to analyse the correlation between directors' numerous directorships and business efficiency. They discovered that bigger companies, in particular, suffer when directors hold several directorships. Many directorships were shown to have a greater detrimental impact on companies that invested more in R&D (Saleh et al., 2020).

Reguera-Alvarado and Bravo (2017) researched how directors on several boards affected company performance. According to the research, business productivity may benefit from board members who have served on many boards. The research did find that executives who serve on multiple boards may get overworked, which may have a detrimental effect on the success of organisations.

Hundal (2017) researched India and discovered that the frequency of single directorships is directly linked with business output. According to the research, several directorships may improve board productivity and judgment since each director brings unique experiences and perspectives(Hundal, 2017).

Director participation in strategic actions that improve business productivity was higher among directors who served on numerous boards, according to research by Mohapatra and Mishra (2021) in India. According to the research, these board members are more willing to share their expertise and insights across boards, which may lead to improved data collection, analysis, and decisions (Mohapatra and Mishra, 2021).

Director interlocks, or the phenomena of directors sitting on numerous business boards, have been studied by Reguera-Alvarado and Bravo (2017) to see how it influences financial and political alliances in the United States. The author concluded that director interlocks have a major effect on financial and political consequences, including business results.

2.3.11 Re-elected Directors & Financial Performance of an Organization

Directors who were re-elected or have continued to serve on the board many times are known as "re-elected directors." Recent research has focused on the effect of re-elected directors on their company's success. The re-election of directors and its effect on financial results in the S&P 1500 companies was studied by Navarro-Sanchez (2020). Company success was positively correlated with directors' likelihood of being re-elected. The authors speculate that this is so since re-elected directors have more time to learn the ins and outs of the business, leading to better decisions and more productivity (Navarro-Sanchez, 2020).

Another research by Huang and Chan (2018) studied the influence of director terms on profitability using a group of businesses in Taiwan SE. The research indicated that long-serving directors (over nine years) had a substantial negative influence on business output, as assessed by ROA. The authors postulate that this is because directors who have been in office for a long time are less likely to take risks and are more likely to become complacent and resistant to new ideas (Huang and Chan, 2018). Research by Atayah et al. (2022) studied the influence of director terms on business results in the setting of family enterprises in Malaysia. The research showed that the length of a director's term harms a company's success but that shorter tenures are also detrimental. The authors argue that this could be as short-tenured directors do not have experience and expertise, whereas long-tenured directors may grow comfortable and less receptive to fresh views (Atayah et al., 2022).

In research byTaufik and Chua (2021), the influence of board re-election on business results was evaluated using a sample of enterprises in Indonesia from 2016 to 2019. Re-elected directors may give a degree of scrutiny and responsibility that favours corporate success, as shown by the study's findings (Taufik and Chua, 2021). Research done by Kang et al. (2022) investigated the influence of director re-election on company revenue in Korea. The research analysed enterprise data from 2014 to 2020 and concluded that director re-election positively influenced company productivity. Research also indicated that state-owned companies and

those with significant free cash flow benefited more from re-electing their directors. The researchers argued that allowing directors to run for re-election would improve their accountability and bring their interests more in line with those of investors (Kang et al., 2022).

2.3.12 Stock Ownership of Directors & Financial Performance of an Organization

Corporate governance scholars have studied the correlation between directors' stock holdings and company success. Bhagat and Bolton (2019) researched the link between director shareholdings and business productivity in the US. Results showed a favourable correlation between the proportion of directors' shares and overall company success. According to the findings, directors with a larger interest in the business's success are more inclined to do what it takes to improve the organisation (Bhagat and Bolton, 2019), Corporate governance and firm performance: The sequel, 2019). Similarly, Kanakriyah (2021) analysed how director ownership affected the success of companies in Jordan. There was a correlation among director ownership and company success, according to the research. The findings imply that board members having a greater investment in the business are more likely to behave in the most beneficial way for the shareholders.

Alodat et al. (2022)researched the link between director shareholdings and business results in Jordan. The analysis demonstrated a favourable correlation among the ratio of shares owned by directors and overall organisational success. According to the study's authors, directors having a greater ownership position in a business are more likely to implement steps that improve business efficiency and match their goals with those of investors. Contrarily, other research has shown a negative link between director shareholding and company success. Harjito et al. (2021), for instance, looked at how different types of board ownership influenced the success of Indonesian businesses. The research demonstrated a negative correlation among director ownership and company success. The findings imply that board members with a greater financial stake in a business are less likely to behave in the most beneficial way for shareholders and are instead motivated by personal gain.

Farooq et al. (2022) studied directors' equity ownership to see how it affected Pakistani companies' bottom lines. Directors' stockholding correlates positively and significantly with measures of business profitability such as ROA and ROE used by the authors. Independent directors, they believe, may be incentivized to perform their oversight of management and the company more successfully if they also hold shares in the company. In their study, Bhatt and Bhatt (2017) looked at how factors like board independence and external directors' holding stakes influenced Malaysian businesses' success. The proponents of external director ownership claim that it may help align directors' interests with investors' and enhance the efficiency of board oversight (Bhatt and Bhatt, 2017).

Based on above review, it is clear that there are inconclusive results for the study of effect of board's characteristics and firm performance. The unlike and indecisive results are because of conceptual, theoretical and empirical weaknesses during the measurement of board characteristics or measuring performance of the firm performances or both. The other factor for inconclusive results is difference in legislative, political and organizational setups Rehman (2009). A wide range of board characteristics and different performance measures have shown contradictory results of this relationship from negative to positive or no significant relationship of board quality and firm performance.

From the above discussion following hypothesis has been developed
H1: *There is a significant relationship between earnings quality and firm performance.*
H2: *Board of director's quality significantly moderates the relationship of earnings quality and firm performance.*

2.4 Political Connections and Firm Performance

At the time of independence, Pakistan has no pre-existing government as of India. It has been thrown on its own resources to start its administration from zero. The leader of house Muhammad Ali Jinnah (son of a businessman) shared that "there is plenty of room for improvement in our administration and in those who are in

charge of the government". His words for business community are "you should have no hand in supporting any political party". He was not in favor of making Pakistan a "paradise for capitalists" whose greed and selfishness subordinate other's interests to get personal benefits. With the passage of time, the development of economic and administrative mechanism did not work as per the plan or purpose. There are evidences that wealth is still in the hands of few families. This has been confessed by planning commission of Pakistan that wealth in equalities are unavoidable and there is still a need of a cure for "economic illness of the society". In case of economic activities where government actions and guidance is necessary to step further, there are greater chances of corruption (Ali et al., 2020).

At the time of independence of Pakistan in 1947, many of businesses were owned by families and majority of them have some political backgrounds. Those companies that were not owned were taken by individuals who were financially strong and directly involved in politics or their relatives were part of politics. There were five renowned business families who owed fifty percent of private businesses and also take part in provincial and national politics. These companies belong to financial as well as non-financial sectors. This inclusion of politicians in business sector caused many problems which still persist in current corporate culture. If the only goal of business remains the profit maximization, it is at the expense of ignoring national interest as well as the interests of minority shareholders (Rehman, 2009). This political involvement stands up several agency problems (Belghitar et al., 2019; Cheema et al., 2016; Haris et al., 2019; Ashraf and Ghani, 2005).

In developing economies, corporate political connections are a good source to access finances. This political consideration is important for Pakistani corporates because elected government are always at threat of corruption and political benefits. Saeed et al. (2014) supported the argument that there is political influence in Pakistani credit market. The bureaucratic system is very strong and powerful. There is lack of political stability and national consensus. Therefore civil servants are directed to paly dual role in policy formulation and its implementation (Saeed et al., 2015). Similarly Haris et al. (2019) found that profit of Pakistani banks is effected negatively if there are politically connected directors as member of board. A study by Saeed et al. (2014) has shown that political connections of Pakistani

firms have different decisions and selection of lending. Firms those are politically connected and group affiliated try to maintain higher long term leverage. The study shows how important political connections are especially of those who win elections, in determining leverage of a firm. Also politicians have prior information about future economic policies therefore they take such decisions that are beneficial for the firm in near future. The ruling political party through their directors get preferential loans during election years in Pakistan (Faccio, 2010; Saeed et al., 2014).

The board of director as a politician or any of his relative as a member of board provides several benefits to a firm. Along with providing special resources, expert opinion about capital market helps to increase firm stability but deviates from objective of value maximization. This causes the conflict of principle-agent relationship. The political connections of CEO especially with the central government results in high raising of capital through IPOs in an emerging economy. They may face low risk because of greater access to credit and bailout in time of crisis. Political promotions of CEO such as key government positions or link with any political party links result in low stock returns, sales and earnings in China as compared to those who are not connected with political links (Abdeljawad and Masri, 2020; Wu et al., 2012).

Boubakri et al. (2012) documented that politically connected firm show poor performance as compared to those which are independent of political connections. Although they get benefits described above, yet politically linked firms show poor accounting performance to save the individual benefits of owner and directors at the expense of stakeholder's benefits (Faccio, 2010). A negative assosiation has been identified between political connections and reported earnings quality indicating that politically connected firms face higher agency problems (Ben-Nasr et al., 2015). Similar findings have been documented by Fan et al. (2007); Amara and Khlif (2020) for France and China. Point to consider here is that this situation is in developed countries and in developing countries where legal system is weak and less institutional stability exists, political connection favorably affect the performance of firms. For example, Muttakin et al. (2015) studied that firm which are politically connected perform better than non-connected firms in Bangladesh.

Directors having political connections enforces managers to oversee the monitoring of accounts resulting in low performance of firm (Larcker et al., 2013). This behavior causes several agency problems of company's management such as diversion from the fundamental objective of maximizing shareholder's wealth, imitated accounting numbers and control (Al-Dhamari and Ismail, 2015). Political influence leads managers to window dress the accounts or disclose some selective information to general public (Abbas and Ayub, 2019). Similarly, politically connected firms decrease the credibility of earnings quality to avoid legal obligations (Ben-Nasr et al., 2015). A contradictory view point of Chaney et al. (2011) is studied in this regard that politically connected firm increases the quality of earnings because of being known in media and business community. They have direct access of information about future contacts and collaborations, so they take such decisions which helps to increase earnings. **?** concluded that when firm depend on external sources, it leads to uncertainty in terms of government regulations and policies and to reduce this uncertainty firm have to make political connections.

Larger firms are at the verge of facing more political costs and they mostly take help of accounting discretions in order to reduce unwanted political stability. Accounting discretions, income smoothing all are based on estimations. In fact managerial opportunism is the reason behind accounting discretions. The challenge faced by companies list the profit is maximum, and companies should incorporate good corporate citizenship with the help of environmental awareness, corporate social responsibility, ethics in company's codes and most importantly better governance practices. A study of Taiwan banks show that firms having strong corporate governance practices require less political connections, on the other side of picture companies with more political connections are low on corporate governance practices (Shen et al., 2015). Similarly for the case of Venezuelan industrial firms has shown better accounting quality of politically connected firm than that of non-connected firm (Batta et al., 2014).

In developing economy especially in Pakistan, corporate political connections are a good source to access finances. This political consideration is important for Pakistani corporates because corruption level is higher in Pakistan and elected government are always at threat of corruption and political benefits. The study

supported the argument that there is political influence in Pakistani credit market (Saeed et al., 2014). Other studies have also documented a positive relation of political connections and financial leverage (Faccio, 2006; Fan et al., 2008).

The political connections of CEO especially with the central government results in high raising of capital through IPOs in an emerging economy (Wu et al., 2012). Political promotions of CEO such as key government positions or link with any political party links result in low stock returns, sales and earnings in China as compared to those who are not connected with political links (Zhang et al., 2014). A study by Saeed et al. (2014) has shown that political connections of Pakistani firms have different decisions and selection of lending. Firms those are politically connected and group affiliated try to maintain higher long term leverage. The study shows how important political connections are especially of those who win elections, in determining leverage of a firm.

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Firms those are politically connected and group affiliated try to maintain higher long term leverage. The study shows how important political connections are especially of those who win elections, in determining leverage of a firm (Saeed et al., 2014). Leverage can be an important exercise in reducing agency problems. High level of debt reduces available cash flows and lesser cash flows enforces managers to think more about further investment plans (Chalevas, 2011).

On the basis of above discussions, it is assumed that political connections of directors of the firms is a "two-edged sword" which doesn't work separately but it

should be studied it in relation to organizational rules and policies. It is expected that firms that have political connection effects the relationship of earnings quality and firm performance. This effect can be to strengthen or weaken this relationship.

H3: *There is a significant relationship between political connections and firm performance.*

H4: *Political connections significantly moderates the relationship of earnings quality and firm performance.*

2.5 Situation in Pakistan

This research of earnings, its use and its necessity has been the focus in developing countries but fewer for Asian markets specifically Pakistan. Secondly the overall focus is on investors but the hidden motive behind any accounting number is corporate benefits such as tax relaxations and increase in credit rating (Pirveli and Zimmermann, 2019). The manipulations in these numbers is the focus in this study that managers when try to bad fit the accounting numbers, how it effect the performance of the firm. Also the moderating role of directors in controlling this number game for personal benefits is elaborated. The study is distinct from traditional studies as it is focusing on an index for quality of board of directors rather than studying their effect one by one. Secondly, a combine effect of proxies of earnings quality has been used for measurements.

Research studies have shown that quality of board has been correlated with firm performance in different situations. Research has shown that relationship of earnings quality and firm performance is dependent on board quality. Especially in Pakistan where there are mostly family owned companies and a controlled group corporate sector. The code of CG in Pakistan addresses six areas and the first and most important is board of directors.

Although all listed companies have tried to be compline with code provided by SECP still they are in adoption phase of code of corporate governance with revisions as changing from time to time (S.U, 2017). Unfortunately, this is known that Pakistani companies have poor corporate governance practice. Pakistani companies have the most effective and regulated corporate structure but performance

is still poor. This paper aims to identify some reasons behind this conflict that although companies are trying to comply with CG practices but why still their performance is low.

Information asymmetry is common problem in Pakistani listed firms. When the information is conveyed by the managers it is assumed that the information is correct and market adjusts efficiently to this information. But this is not actually the case, information conveyed by managers is not true what happens in the firm. Therefore, this study is important in regard that it is first study with respect to Pakistani corporate culture in determining the role of Quality of Board of Directors in relationship to earning quality and firm performance.

The study provides a result with empirical results that if quality of board is good then it will lower the need for accrual accounting as policies will be effective and passed by experienced individuals. As directors are responsible for strategic decision making of the firm, they should have required professional qualifications, experience, experienced but not overly aged, has adequate shares in the firm so as to have interest in the profitability of the firm and ethically responsible for their tax paying and knowledge about their roles and responsibilities. In short compliance with codes provided by SECP.

2.6 Summary of the Chapter

This chapter of the study reviews four basic themes used in this research. These are earnings quality, board of directors' characteristics, political affiliations and performance of firms. This section is providing background information about each of the variable identified above and explains the reasons for planning investigations in this study and underlying motivation for the research.

This literature review aims to provide an up-to-date overview of earnings quality, the board of directors' characteristics, political connections and their link with the performance of companies. It analyzes the existing research and explore current trends, theories, and findings in this area. This chapter identifies and explains the main terms used in the thesis.

Chapter 3

Data and Methodology

Methodology is an important part of research. As interpreted by Ueno and Sekaran (1992) if basic questions regarding the model have not been understood well then how can they be answered? So methodology explains all ways to find the solution of research problems in an improved way.

3.1 Overview

This chapter is about the data and methodology used in this research. It is divided into ten sub-sections. Section 1 and section 2 are providing overview and introduction of the chapter. Section 3 is explaining the overall population and sample selection process. The variables and data specifications are explained in section 4, section 5 and section 6. For identification of best method to use in the study, section 7 provides some diagnostic tests. In section 8 introduction to GMM methodology is described while section 9 explains the estimation model for the study. Final section of this chapter summarizes the work presented in this chapter.

3.2 Introduction

As explained in the previous section that the objective of this study is to determine the moderating effect of characteristics of board of directors and their

political connections on the relationship of earnings quality and firm performance in Pakistani non-financial sector using firms listed on Pakistan Stock Exchange. In order to achieve the said objectives of the study, theoretical contribution by researchers have been reviewed in detail and on the basis of those studies, methodology has been finalized depending on the nature and availability of data. This chapter is intended to explain the complete procedure of sample selection, data collection, data specification and methodology used to test hypotheses generated for the study. More specifically, this chapter of the study elaborates the basis for sources of data collection for measurement of dependent variable, independent variable and moderating variables. The chapter proceeds as follows. Sub section gives detail about data sources, model specification, explains the research models for dependent variable, independent variable, moderating variable and control variables. Also the basic assumptions regarding multiple regression are discussed in next sub section.

3.3 Research Methodology

Research is a phenomenon to investigate systematically to confirm existing facts and find new conclusions. "Methodology is the philosophical framework within which the research is conducted or the foundation upon which the research is based" (Brown and Caylor, 2006).

3.3.1 Research Philosophy

In academia the philosophy of research is categorized as positivism, realism, interpretivism and pragmatism. In the current study, positivism approach of research philosophy is applied because this research is distant from personal values and completely depends on the secondary data collection and interpretation accordingly. The focus of the research is completely on facts and numbers obtained after data analysis and test applications. The current era financial theories are mostly structured on the thought of realism and "Walrasian general equilibrium". This is the research with use of scientific methodology of positivism. This fall under the paradigm of functionalism.

3.3.2 Research Approach

Research approach is the process of collecting, analyzing and interpreting the data. There are three types of approaches used in research called qualitative approach, quantitative approach and mixed approach. The data collected for the study is secondary data and quantitative in nature.

3.3.3 Research Strategy and Design

Research design is the framework plan for doing research. In this study the population is identified as all the non-financial firms listed on Pakistan stock exchange for the years 2009-2019 and then sample of 114 companies is selected depending on required data availability. The stepwise elaboration is presented in section "population and sample". For variable specification, thirteen attributes of board of directors (BOD) have been converted in a single composite score using principle component analysis technique named as BOD-Index. The political connections of the board of directors whether direct or indirect have been identified by a dummy variable. Earnings quality index (EQ-Index) is created using three widely used proxies of earnings quality named as accruals, persistence and earnings smoothness. For analyzing the data, first the effect of earnings quality on performance of the firm is measured. Three attributes of firm performance have been used namely Return on Assets, Return on Equity and Profit Margin (ROA, ROE and PM). Generalized methods of moments (GMM) estimates for panel data has been used and to control for endogeneity problem lag of proxies for firm performance are used.

3.4 Population and Sample

The population for this study is all the non-financial companies listed on PSX (Pakistan Stock Exchange) till 2019. The sample of companies have been selected subject to the availability of information regarding characteristics of board of directors and information regarding their political connections. Political connections of the each firm is identified by performing the following steps. First, the full name

of politician is matched with the name of directors present on the board presented in annual report of the company. Also the name of directors is confirmed by matching it with that lists present on official website of the company.

The full name of politician is consulted using the websites of provincial and federal assemblies. The number of enlisted political parties have been taken through election commission of Pakistan's website. The current study observes the time frame from 2009 to 2019 to best capture the effect of policies of corporate governance. This code of corporate governance was presented in 2002. At that time it was an initiative, therefore it was difficult for companies to adopt. The revised code in 2007 was a strict code which ensures that all firms abide by the rules and regulations regarding the governance matters and especially the board of directors.

This code of corporate governance was again revised in 2012 and 2017. As the purpose of this code is to save the rights of its stakeholders which is ultimately profit maximization and effect clear performance, therefore this time from 2009 to 2019 has been taken as periods of study in this research work. This time frame best captures the effect of qualities of board of directors as described in CCG and its implementation effect. In order to capture the effect of accruals and because of dynamic panel data of the study, 1 year lag data for has also been considered (Sadiq and Othman, 2017).

Similarly all the thirteen parameters of characteristics of board of directors have been identified by carefully analyzing the directors' profile and related information provided in the annual reports and websites. For this purpose annual reports of the firms are downloaded separately for the said years from each company's website. Although companies are continuously trying to cope with governance code but still there are gaps in annual reports which has limited the study for firm year observations.

The sampling process is completed in the following way. The number of listed companies is 544 companies as on June 30, 2019. Out of these 544 companies, there were 418 companies that belonging to non-financial sector of the listed companies on PSX. There were only 378 companies who have declared their annual results in their annual reports. The annual reports of these 378 companies have been observed for the availability of data regarding all the thirteen variables of

characteristics of board of directors and their political affiliation with any of the political party enlisted on the website of election commission of Pakistan.

After careful study of the above parameters this number of companies has reached 114 companies actively trading on stock exchange. This final sample consists of 1254 firm-year observations. These 114 companies belong to eight sectors of non-financial sector listed on PSX.

- Textile
- Oil and gas
- Cement
- Sugar
- Transport
- Fertilizer
- Chemicals
- Pharmaceuticals

The selection of the companies has excluded the insurance firms, banks and investment funds from the financial sectors of listed companies. This selection has been done because non-financial sector has a different fundamental structure and capital structure form that of financial sector.

This difference in fundamental and capital structure can cause biasness in empirical analysis. Also both have difference in nature of businesses which cannot be compare with other firms.

Secondly the financial sector has different reporting rules as well as different accounting rules. The data used in the study is hand collected. The nature of data is secondary data. The data for control variables have been collected from two sources.

The control variables belonging to firms characteristics, i.e. FS (firm size), LIQ (liquidity) and LEV (leverage) has been extracted from annual reports of companies. The other macroeconomic control variables including GDP and inflation has been taken from WDI (World Development Indicator).

3.5 Conceptual Model

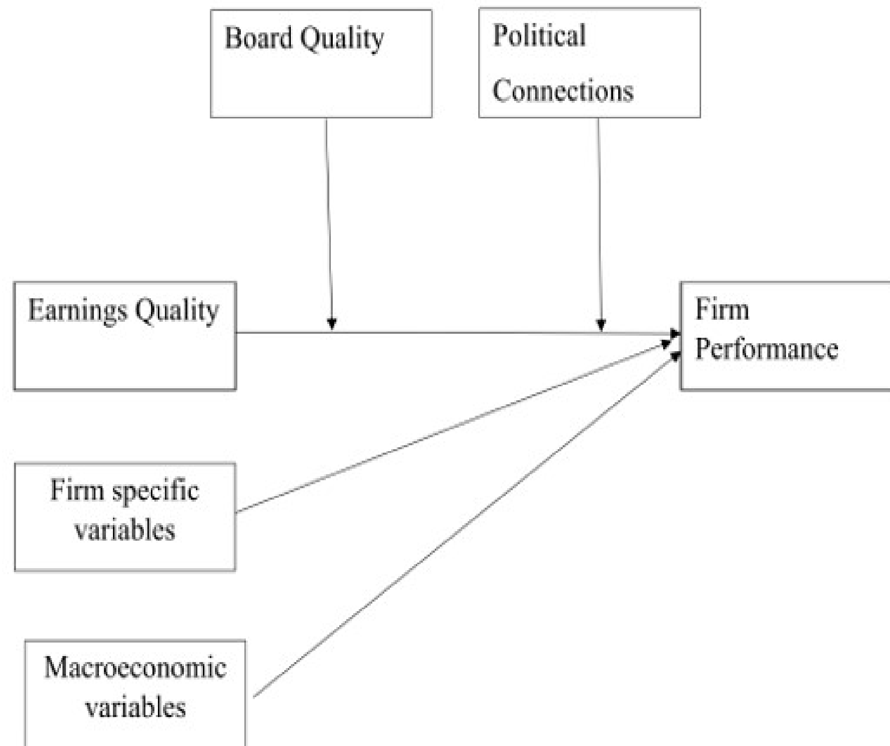


FIGURE 3.1: Conceptual Model of the study

3.6 Variable Specification

3.6.1 Dependent Variable

As per the definition of variables in the literature review and conceptual model, the dependent variable of current study study is "firm performance" which is measured by ROA return on assets, ROE return on equity and PM profit margin. Performance of the firm is analyzed on the basis of accounting measures ROA (Bhagat and Bolton, 2008) and ROE (Shukeri et al., 2012).

3.6.2 Independent Variable

Earnings quality is selected as independent variable of the study (from now will be written as EQ). Earnings quality variable is specified using balance sheet approach. Previously earnings quality proxies are being used individually in finance literature

to capture the effect of earnings quality but with advances and new studies, the earnings quality index (EQ INDEX) variable is generated by creating an index of three most widely used proxies of EQ.

This EQ is studied through some proxies. Obeng et al. (2020) have introduced a new concept of using a composite score of three proxies of earnings quality as compiled by (Dechow, Ge, & Schrand, 2010) named accruals, earning persistence and earnings smoothness. Model specification for each proxy is explained below.

i) Accruals

$$\frac{TACR_{i,t}}{A_{i,t-1}} = \beta_0 + \beta_1 * \frac{1}{A_{i,t-1}} + \beta_2 * \frac{\Delta Sales_{i,t} - \Delta Rec_{i,t}}{A_{i,t-1}} + \beta_3 * \frac{PPE_{i,t}}{A_{i,t-1}} + \beta_4 * ROA_{i,t} + \epsilon_{i,t} \tag{3.1}$$

Where

"$TACR_{i,t}$ = firm i total accruals at year t

$A_{i,t}$ = firm i total assets at year t

$\Delta Sales_{i,t}$ = firm i change in sales between t and $t-1$

$\Delta Rec_{i,t} = f$irm i change in receivables between t and $t-1$

$PPE_{i,t}$ = firm i net value of property, plant and equipment in year t

$ROA_{i,t}$ = firm i Return on Assets in year t

$\epsilon_{i,t}$ = residuals which captures accruals. (use absolute values)"

Where Total accruals will be calculated using

$$\text{TACR} = \text{NI - CFO} \tag{3.2}$$

ii) Earnings Smoothness

As used by Obeng et al. (2020) earnings smoothness is calculated as the correlation between the change in firm's discretionary-accruals proxy and change in pre-discretionary income (PDI). Both of them are being deflated by total assets. It is calculated using current year and past four year's observations. Pre discretionary income is calculated as net income minus discretionary accruals (PDI =

NI-DA) (Tucker and Zarowin, 2006). Discretionary accruals are calculated using modified cross sectional Jones model (1995) as explained in equation.

iii) Earnings persistence

The model specification for estimates of earnings persistence by Dechow et al. (2010) is as follows

$$Earnings_{t+1} = \gamma_0 + \gamma_1 * Earnings_{t+\epsilon_t} \tag{3.3}$$

Where magnitude of accruals is explained as Accruals = $Earrnings_{t-CF}$
Therefore according to Sloan (1996) decomposing the earnings component in to cash flow and total accruals is:

$$Earnings_t = \beta_0 + \beta_1 * CF_t + \beta_2 * Accruals_t + \epsilon_t \tag{3.4}$$

3.6.3 Moderating Variable

As explained in the literature and introduction, moderation is the phenomenon which either strengthen or weakens the relationship of two variables; independent variable and dependent variable. The moderator variable hence changes the "effect component" of the cause-effect relationship. This moderation effect is also denoted as the interaction effect. To be brief about a moderator variable, it is a component that modifies the cause-effect relationship of variables in terms of increasing or decreasing it.

The effect of earnings quality on firm performance is clear and evident and also the role of corporate governance also enhances this relationship. But this term corporate governance is a broader term and a wide umbrella. There are further sub sections of governance and two of the most important could be directors and their political connections. Therefore two moderating variables are used in the study. Board of directors' quality and political connections of the firm.

The first moderator of board of director's political connection is studied as a dummy variable. It is 1 for firms having any kind of direct or indirect political

connection and for those which are not politically connected, this variable is identified as zero. The political data has been collected from the website of election commission of Pakistan (from now onwards ECP).

There are 146 political parties enlisted with ECP. This variable is used as a dummy variable where two main sources of political connection i.e, direct connections and indirect connections have been considered. Both of these have been explained in the literature earlier. The second moderating variables used in the study is board of director's quality index (BOD Index).

3.6.3.1 Creation of BOD Index

Indexes are created to get the maximum capture effect of each of the variable in a set of variables. According to The World Bank, definition of principal component analysis is provided as "PCA, is a way to create an index from a group of variables that are similar in the information that they provide". When there are more than one variables but captures the same effect or are very close to each other, they all can be used in combination. But there is problem in combining all variables. The question arises that should they be combined using average scores.

Again there is a problem that t if one variable is most important than other then weighted average should be used. Although this weighted average method is best to capture combine effect but it still has problem of variances. For example if one variable is spread between 0 to 100 and the other is clustered above 80 then arises the problem of higher variance. To solve such problem and to capture maximum effect of all variables and also considering the variability among them, principal component analysis (PCA) method is used. The principal components are the linear function of original variables to be studied. This number of components in a data set is equal to the number of columns or values of variables used in the study. The PCA techniques is best for those data sets which have greater number of correlated variables. The first component created after the analysis usually captures the higher percentage of variance. This variance of the first component indicates the higher co-linearity among the variables. Then the second component captures the effect of variations that have not been captured by first component.

It works on the phenomenon of constructing artificial variables which are commonly known as principal components (PCs). Instead of using original variables these principal components are constructed based on correlated variables in the study. These are the regressor in the model and are orthogonal. These are called orthogonal to one another because they are uncorrelated to each other. They are called orthogonal because they are at right angle to any of the axis in graphical form. A group of correlated variables is created which have some factors in common.

This process of PCA for index creation has been used for creating earnings quality index also. In earnings quality, there are three varaibles so the PCA method will create a matrix of 3X3 while in the case of board of directors quality index a matrix of 13X13 is created.

In order to perform this PCA method, first correlation matrix is crated and confirms the presence of multi collinearity. In the current study 13 attributes of board of directors have been taken and get a matrix of 13 x 13. After confirmation of multi collinearity, auxiliary regression is performed. This auxiliary regression helps to construct artificial variables. In auxiliary regression one of the variable is considered as dependent variable and rest of the explanatory variables in the model act as independent variable.

This results in first auxiliary regression and factor is created. This factor will be now used as the explanatory variable instead of original independent variable. The number of factor depend on the number of explanatory variables. These factors actually helps to explain dependent variable by excluding the problem of multicollinearity. For the current study Eviews 9 has been used as statistical software. The methodology to perform a principle component analysis have following steps.

- Insert all the independent variables in a new work file
- Select the all 13 variables of characteristics of board of directors and open it as a group
- In this group tab, select view option and then principal components
- In the new window of principal components select option Table and OK
- This table is the output of factors presented in Table 3.1 and Table 3.2

Table 3.1: Eigenvalues (loadings/Principle Components)

Eigenvalues: (Sum =13, Average = 1

				Cumulative	Cumulative
Number	**Value**	**Difference**	**Proportion**	**Value**	**Proportion**
1	9.516	8.543	0.732	9.516	0.732
2	0.973	0.138	0.075	10.490	0.807
3	0.836	0.172	0.064	11.325	0.871
4	0.664	0.189	0.051	11.989	0.922
5	0.475	0.278	0.037	12.464	0.959
6	0.197	0.068	0.015	12.660	0.974
7	0.129	0.050	0.010	12.789	0.984
8	0.079	0.015	0.006	12.868	0.990
9	0.064	0.036	0.005	12.932	0.995
10	0.028	0.005	0.002	12.961	0.997
11	0.024	0.011	0.002	12.984	0.999
12	0.012	0.009	0.001	12.996	1.000
13	0.004	—	0.000	13.000	1.000

- Again in view, select Eigen values plot and a graph is generated presented

In the Table 3.1 the first column shows the number of variables used in the model of creating board of directors' quality index. 9.51 value shows the Eigenvalue (variance) of 1st variable. The proportion of variable 1 is 0.732 which shows that this first variable created explains the 73 percent of variation of all the explanatory

variables used in the model. The second variable has 0.97 variance and explains only 7% of variation of all thirteen explanatory variables studied for the model.

The cumulative proportion of the table suggests that first factor explains the 73 percent of the variation but when combining the factors 1 and factor 2, it explains 80 percent of the variation of all explanatory variables of the study. Similarly the cumulative proportion of next 11 variables show that each of the variable is adding its proportionate part in explaining its importance in the model. In the current study as the first variable is so explaining that it captures the maximum effect with 73% of variation so only values for first component can be selected as best suitable to be studied.

The next Table 3.2 is of Eigenvectors which is showing thirteen factors for the thirteen variables based on the auxiliary regression. These factor loadings show that how much contribution is played by each of the explanatory variable in particular principal component. Each component has different combinations of weights assigned to each explanatory variables. In this table each of the factor is giving some weight to each to the variable to be studied. The first principal component PC1 is giving 0.322 weight to the variable average age of directors, 0.312 weight is allotted to board of directors compensation.

A weight of 0.317 is given to board size. Similarly weights of 0.319 and 0.312 are given to the most common characteristics of board of directors named as CEO duality and their directorship in other companies. Diligence of the board, experience of the board and knowledge of the board are also loaded heavily as 0.312, 0.322 and 0.305 in PC1. But these weights are 0.181 for presence of non Muslim directors on the board, 0.239 for independent directors on the board and 0.291 for motivated directors.

The lowest weightage in the first component is allocated to the presence of female directors on the board and percentage of stock ownership held by the directors for the given set of data. Actually the explanatory variables are converted in to artificial variables which are not correlated with each other.

Another justification for selecting the first component suitable for index creation is that the scree plot confirms only one factor above the critical line.

FIGURE 3.2: Scree Plot (Eigen Value)

The BOD Index is created using a composite score of 13 characteristics of board of directors titled as Board size, Board composition, CEO duality, Board Independence, Board diligence, Experience, Knowledge, Gender, Diversity, Stock percentage, Average age of director, Directorship in other companies and Re-elected directors, each defined separately in table 3.3. The variable BODQI has been created by using PCA technique of all thirteen variables of director's attributes explained in Table no 3.4. We have taken the first component and named it as BODQI as it present the largest possible variance in our data set.

PCA method has been used as it creates and combines a variety of variables in a way that they are uncorrelated but still captures the maximum information in the first component. In corporate governance literature there are many attributes to study so making an index using PCA to get simplified yet maximum explaining variable for analysis.

Some most widely used index for corporate governance are G-Index (Gompers et al., 2003), GOV-Score (Brown and Caylor, 2006), E-Index (Bebchuk et al., 2009). As according to the current research, board of directors are considered to be the most important element in corporate governance so they should be studied separately from other governance parameters. This index method has been applied to get maximum information from the given data set for specified characteristics of board of directors (Bin-Sariman et al., 2016).

In literature, there is no agreed theory for guiding researchers to create their own measure for governance quality (Brown et al., 2011). Also there is no measure that is considered to be a standard around the world which can be implemented in any country specific measures. For the reasons mentioned above, Bin-Sariman et al. (2016) have developed a composite score for board of directors quality by considering six important characteristics of board of directors for Omani firms. These six characteristics are

- Board size
- Board independence
- Directors financial expertise
- Board meetings
- Directorship
- Foreign directors

The empirical findings from their study showed that the quality of board of directors' quality has an insignificant effect on firms' capital structure in the case of Oman. On the other hand, when the interaction of board of directors' quality is studied with insider ownership, it results in low debt financing. So the major finding were that the financial decisions of Omani non-financial firms is effected by quality of board of directors. Keeping in view the above discussion, the current study has used its own board of director's quality index based on the thirteen most important attributes of characteristics of board of directors as described in Table 3.4.

3.6.4 Control Variable

There are two control variables used in the study. These are firm specific variables and macroeconomic variables. As the sample companies is defined on the bases of available data regarding independent variable and two moderating variables. When the companies are selected on the basis of some selected parameters, each company has different size, different liabilities and different capital structure. This forms the base for controlling firm size, liquidity, leverage, GDP and Inflation

at firm level and at macroeconomic level. Liquidity ratios are the ratios which measure the ability of a business to meet the financial obligations by relating the cash and near cash. The ratio will affect the business operations of the firm as well as profitability. There is actually a trade-off among liquidity and firm profitability, means if one is focused more, the second will definitely be given up.

Financial leverage is the degree of a firm or investor to use the borrowed money. It is the measure that to what extend firm finances its assets by using its equity and debt. Increasing the debt, financial leverage also increases.

Firm characteristics namely firm size, leverage and liquidity effect the earnings quality. Literature has identified both positive as well as negative influence of firm characteristics on earnings quality. Richardson et al. (2005) concluded that earnings quality decreases with increasing the firm size and argued that large size firms are more effected by the pressure exerted by capital market, as compared to small firms inorder to achieve the earnings targets. This is the reason behind the management of larger firms to engage in earnings management technique more frequently.

Also larger firms have a better internal control system which reduces the chances of engaging in earnings quality technique. Also the larger firms have big 4 auditing companies services which restrain managers to indulge in earnings quality activities (**?**). Similarly Lemma et al. (2020) concluded that larger firms avoid earnings quality activities in order to refrain from reputation concerns.

The macroeconomic control variable used in the study are inflation and GDP. "Inflation refers to an increase in prices, while GDP is the total output of any economy". With the passage of time, inflation increases with the growth in GDP causes. If this increasing inflation is not controlled, it gives rise to the phenomenon of hyperinflation. Individuals generally use the terms of inflation (INF) and gross domestic product (GDP) almost daily. Many of the researchers have more or less concept of inflation and GDP and their interaction. But even the econometrician's did not agree that what should be the minimum inflation in the financial markets which can lead to better economic performance. To make any investment decision, investor should be aware of the meaning of GDP and INF for the economy, market and portfolio.

Table 3.2: Characteristics of Board of Directors

Name	Definition
BS	Total number of board members
BCS	If managerial remuneration and bonuses are given then 1, 0 otherwise
CDU	CEO working as chairman
IND	Percentage of independent directors on the board as of total board size
DLG	No of board meetings attended during the year
EXP	Average number of years the firm's director has served on the board
KNW	Minimum 16 years of qualification is 1, 0 otherwise
GENF	Percentage of female directors in total board size
DIV	Percentage of minority (non-muslim) directors in total board size
STOW	Percentage of shares held by board of directors and their family members
AAGE	Sum of Individual age of directors divided by total number of directors on the board
DIOC	Average number of total additional boards on which directors serve
REDI	If director is re-elected in the company's general elections

Table 3.3: Measurement of characteristics of Board of Directors

Acronyms	Full Name	Measurement	References
BS	Board Size	Total number of members on the board	Agyeman (2020)
BCS	Board compensation	If managerial remuneration and bonuses are given then 1, 0 otherwise	Pucheta-Mart (2020)
CDU	CEO duality	CEO working as chairman is given 1, 0 otherwise	Chang et al. (2019)
IND	Independence	Percentage of independent director on the board	Shan (2019)
DLG	Diligence	Average number of board meetings attended during the year	ALJAAIDI et al. (2021)
EXP	Experience	Average number of years the firm's director has served on the board	Adams et al. (2018)
KNW	Knowledge	Minimum 16 years of qualification is 1, 0 otherwise	Mohy-ud din and Raza (2022)
GENF	Gender Female	Percentage of female directors in total board size	Shaheen and Iqbal (2022)
DIV	Diversity (Minority)	If non-Muslim director is present on board 1, 0 otherwise	Alazzani et al. (2019)
STOW	Stock Ownership	Percentage of shares held by the board of directors and their family members	Saona et al. (2020)
AAGE	Average Age	Sum of Individual age of directors divided by total number of directors on the board	Yang et al. (2019)
DIOC	Directorship in other Companies	Average number of total additional boards on which each director serve	Omer and Al-Qadasi (2020)
REDI	Re-Elected Director	If director is re-elected in the company's general elections 1, 0 otherwise	Van den Berghe and Levrau (2004)

3.7 Data Specification

The data sample for evaluating the effect of earnings quality on firm performance with the moderating role of board quality and political connections has been drawn using

- Annual reports of the company
- Company's official website
- State bank of Pakistan's website
- SECP website
- Election commission of Pakistan's website

Annual reports of the company are studied for each year in the data sample for getting information regarding financial values used in the analysis, i.e, returns, assets and liabilities. Also the director's report presented by each company in its annual reports is analyzed to get the data regarding characteristics of board of directors. The data which was missing regarding the directors in annual reports is collected by consulting the official website of the company. Election commission of Pakistan's website is consulted for confirming the enlisted political parties with election commission for the period of 2009 to 2019. The names of members of political parties obtained was matched with that of list of directors prepared from the annual reports of the company and political affiliation is being confirmed. The code of corporate governance has been collected from securities and exchange commission of Pakistan for highlighting the factors necessary to incorporate in the annual reports by the commission.

The code of corporate governance was introduced in March 2002 and all companies were to comply with it. At the start it was difficult for companies to adopt the code therefore this code was revised in 2012, 2014 and 2017, because the governance standards are dynamic and need to be updated. So time frame for the collected data is from 2009 to 2019 to best capture the effect of changing codes and its effect on the nexus of earnings quality and performance.

Also a General Order was issued by SECP (Securities and Exchange Commission of Pakistan). In that order it was made compulsory for the companies to disclose

(in written and monetary terms) their all corporate governance activities specially their matters related to board of directors in the director's report section of annual reports. Later, guidelines and amendments have been made in the code of corporate governance in 2012 and 2017 for better understanding and implementation. The code guided the companies about ensuring transparency and accountability in implementing the governance rules.

3.7.1 Data Selection

In research there are three types of data called panel, time series and cross-sectional.

cross-sectional data is subject to the observations obtained for the firms at same point in time. There can be many number of firms but in order to be a cross sectional data, data is taken from one specific year or a month. Such type of data regression limits the degree of freedom required to perform a meaningful and comprehensive analysis.

Time series data observations are created over a period of time. These time series regressions are problematic because of non-stationarity. In time series data OLS estimates are used by studying individual effect of each variable on dependent variable. In such case serial correlation might be a problem of time dependent nature of Y.

Panel data is a combination of time series and cross sectional data. It is also known as longitudinal data. This type of data allows more observations and more cross sectional information. It allows for analysis of time invariant variables (geography, gender, race, industry) and time variant variables (profitability, GDP). It helps in collecting greater number of observations which helps in obtaining a statistically significant coefficient.

It has greater degrees of freedom and accounts for the impact of firm-specific attributes yet it is more troublesome compared to time series and cross-sectional data. It is considered as best approach to study firm level or country level analysis because it incorporates changes within the firm as well as changes across firms. The panel data is of five types: balanced panel, short panel, long panel, dynamic

panel and unbalanced panel.

3.8 Estimation Methods

After deciding for the type of data, the next step applied is how to select the estimation method for panel data regression. There are three estimation models for regression.

- **Pooled OLS**

This pooled OLS regression assumes that regression coefficients are same for all the observations in the firm. Secondly, the regressor are non-stochastic which means that error term is not correlated with the explanatory variable and covariance is zero for an unbiased and consistent results. As panel data includes different firms with different characteristics, there exists the problem of heterogeneity. Heterogeneity is a condition which refers to "unobserved firm-specific characteristics". These firm specific characteristics vary across the firm but fixed through time mean they are time-invariant.

The firms with different characteristics are lumped together in a single pooled OLS estimation to control for these fixed effects. It results in the endogeneity problem. It is a condition in which firm-specific characteristics are incorporated in the error term. This endogeneity problem is defined as "a problem in which the error term is correlated with one or more of the regressor". The problem of endogeneity causes biasness and inconsistency in the estimated regression coefficients which results in errors and inaccurate inferences. To deal with this issue of unobserved heterogeneity, statistician have introduced two types of models.

- **Fixed Effect Models**

Fixed effect models account for the effect of firm heterogeneity.
Here ω_i is the unobserved heterogeneity which is the firm defendant error term. It is fixed over time but varies cross-sectionally. The coefficients from fixed effect model are known as fixed effect estimators. There is one-way fixed effect model which identifies that intercept varies only across firms but not across time. When the intercept varies across firms only, it is to account for heterogeneity.

$$Y_{it} = \beta_0 + \beta_1 X_{1,it} + \beta_2 X_{2,it} + \nu_{it}$$

$$Y_{it} = \beta_{0i} + \beta_1 X_{1,it} + \beta_2 X_{2,it} + \textit{Firm Fixed Effects} + \varepsilon_{it}$$

$$Y_{it} = \beta_{0i} + \beta_1 X_{1,it} + \beta_2 X_{2,it} + \omega_i + \varepsilon_{it}$$

Figure 3.3: Fixed Effect Model

To select between pooled OLS and fixed effects for the best model for given set of data certain tests are performed. First to apply restricted or partial F-Test and the other is Wald test of differential intercept. Restricted F-test is a direct test to determine that fixed effect model is better than pooled OLS. There can be two kinds of models. If the model is reduced model or restricted model than pooled OLS is applied which has common intercept and fewer coefficients. While in the case of complete model or unrestricted model fixed-effect model is applied. In F—test if the calculated F is greater than critical value of F and P-value is less than 0.01, then reject the null hypothesis. Therefore if differential intercepts are included, it will significantly improve the model in this condition we accept the fixed effect model and reject pooled OLS model. The second test to select between pooled OLS and fixed effects is Wald Test. It is a joint test of the differential intercept values. The main purpose of this test is to determine if the differential intercepts denoting heterogeneity are larger enough to warrant the use of fixed effect models rather than pooled OLS. If the value of F-statistic is significant that is p-value is less than 0.05 ($p - value < 0.05$) we reject the null hypothesis. From this result we conclude that fixed effect model is more appropriate than pooled OLS model. This means that to account for heterogeneity is important to determine the joint effect of independent variables on defendant variable.

- **Random Effect Models**

Random Effect models are also known as error components model. This model incorporates the firm heterogeneity within the error term rather than specified as a dummy variable. It occurs while allowing for a common intercept. When this intercept is common then the error term is combined and get the random effect model (REM) or error component model.

The error term created has two components. These are named as firm specific error

term and idiosyncratic error term. This firm specific error component measures the random deviation of each firm's intercept from the common intercept. Random effect model is different from fixed effect model because in fixed effect model each firm has its own intercept values which are fixed while in random effect model there is a common intercept which is the average of all firms' intercept.

To select between pooled OLS and random effects for the best model for given set of data certain tests are performed. Pooled OLS method is used when the covariance between the error term and the independent variable is zero. It may be ok because pooled OLS should produce consistent parameter estimates. Although this method can be ok but there can be problem of serial correlation. This problem occurs when errors in a given period of time carry over into the future periods. This may result in inefficient parameter estimates. To understand the condition of serial correlation, the error term is expanded across two time periods.

$$Cov(v_{it}, v_{is}) = Cov(\omega_i + \epsilon_{it}, \omega_i + \epsilon_{is}) \tag{3.5}$$

Where t and s are the two different time periods. In this situation even when the

$$Cov(\omega_i, \epsilon_{it}) = Cov(\omega_i, \omega_j) = Cov(\omega_i, \epsilon_{is}) = Cov(\epsilon_i, \epsilon_s) = 0, \tag{3.6}$$

which means that individual error components are neither correlated with each other nor auto correlated across both cross section and time period, it is not certain that

$$Cov(\omega_i, \omega_j) = Var(\omega_i) = \sigma^2\omega_i = 0 \tag{3.7}$$

In such situation, pooled OLS estimates may result in the problem of serial correlation. This problem of serial correlation is resolved by random effect method. This REM using generalized least square estimation approach (GLS) solves the issue for serial correlation. REM method identifies the degree of problem with serial correlation and then fixes it by using weighted estimation approach. Random effect model is better than fixed effect model because it allows the estimation of time-invariant variables effect. This value of time invariant variables doesnot change across time. Unlike fixed effect models, random effect models account for

the time invariant variable as other regressor in the model. One of the main drawback of random effect model is that assumes the covariance of cross section error term and the regressors to be zero which actually does not hold for many of the cases.

3.9 Data Description

The data used to analyze the relationship of earnings quality with firm performance with the moderating role of board of directors quality and political connections is panel in nature because it comprises of larger data set with multiple firm year observations. Therefore before moving to the main regression analysis some diagnostic tests are necessary to perform for confirming data is suitable for multiple linear regression analysis. The basic underlying assumptions for multiple linear regression are sample size, normality of data, autocorrelation, multi-collinearity and heteroskedasticity.

These basic assumptions must be satisfied elsewise the results could be biased. The above mentioned assumptions have been tested by employing various statistical tests. The first test performed is normality of the residuals using "Kernel density curve". The second test performed is for data stationarity using unit root tests by Levin et al. (2002) and Im et al. (2003). After estimating data stationarity, the third test performed is Cointegration tested using "Kao (1999) Cointegration method". As the data is panel in nature therefore there is heterogeneity and endogenity is tested using "Wald test". After performing these diagnostic tests the regression equations using Gernalized methods of moments GMM is applied.

3.10 Statistical Tool

EViews is the most commonly used statistical package used for econometric analysis and forcasting and simulations by researchers especially. It offers economic institutions, businesses, government agencies, and researchers an access to influential statistical tool. It is used for anlaysing time series data, forecast and modeling tools through an advanced but easy to handle object-oriented interface.

Table 3.4: Variables Description

Acronyms	**Full name**	**Measurement**
Dependent Variable (Firm Performance)		
ROA	Return on asset	ROA=NI/TA
ROE	Return on equity	ROE=NI/Shareholder's equity
PM	Profit margin	PM=NI/Revenue
Independent Variable		
EQ Index*	Earnings Quality Index	Principal component analysis (Acc, EarP, EarS)
Control Variable		
FS	Firm Size	Natural log of total assets
LIQ	Liquidity	Ratio of current assets to current liabilities
LEV	Leverage	Ratio of total liabilities to total assets
GDP	Gross Domestic Product	Economic growth
INF	Inflation	Consumer Price Index
Moderating Variable		
PCN	Political connections	Political affiliation of members of board
BOD Index	Board of Directors' Quality Index	Index created using characteristics of board of directors

Table 3.5: Variable for Earnings Quality Index (EQ Index)*

Acronyms	**Full name**	**Measurement**	**References**
Acc	Accruals	$\frac{TA_{i,t}}{A_{i,t-1}} = \beta_0 + \beta_1 * \frac{1}{A_{i,t-1}} +$ $\beta_2 * \frac{\Delta Sales_{i,t} - \Delta Rec_{i,t}}{A_{i,t-1}} +$ $\beta_3 * \frac{PPE_{i,t}}{A_{i,t-1}} + \beta_4 * ROA_{i,t} + \epsilon_{i,t}$	Kothari et al. (2005)
EarP	Earnings Persistence	$Earnings_{t+1} = \gamma_0 + \gamma_1 * Earnings_{t+\epsilon_t}$	Dechow et al. (2010)
EarS	Earnings Smoothness	Corr. of ΔDA & ΔPDI	Obeng et al. (2020)

Abbreviations: TA is firm's total accruals at year t; A is firm's total assets at year t; ΔSales is firm's change in sales between t and t-1; ΔRec is firm's change in receivables between t and t-1; PPE is firm's net value of property, plant and equipment in year t; ROA is firm's return on assets in year t; ϵ is residuals which captures accruals; DA is discretionary accruals and PDI is prediscretionary income.

3.11 GMM Methodology

As described above the best suitable methodology to run the regression between earnings quality index and firm performance with board of directors quality and political connections as a moderator is using generalized method of moments (GMM).

In dynamic panel models the lag of dependent variable is use as independent variable.

$$y_{i,t} = \alpha + \beta y_{i,t-1} + \delta x_{i,t} + \mu_i + \epsilon_{i,t} \tag{3.8}$$

Where,

$y_{i,t}$ = dependant variable for the firm i at time t

α = intercept

β =slope coefficient of $y_{i,t-1}$

γ =slope coefficient of $x_{i,t}$

μ_i =individual specific effect

$\epsilon_{i,t}$ = error term for firm i at time t

The above equation is dynamic panel in structure. When this equation is estimated by using fixed effect models then explanatory variable of the study will be correlated with the error term. This correlation of error term with the explanatory variable violates the assumption of "exogeneity" of fixed effect estimators. Therefore this correlation effect results into biased estimators of the regression and such a bias is called Nickell's Bias. This Nickell's Bias was presented by Nickell in 1981. According to this bias fixed effect estimator for the dynamic panel model are biased and inconsistent. In the dynamic panel model, the dynamic structure of the model cannot be ignored and to deal with the problem of endogeneity problem and inconsistent estimator, instrumental variables are used.

These instrumental variables are the lag of independent variables. Any instrumental variable in a regression works with two assumptions. First is that it is not correlated with the error term and the other one is that it is correlated with the regressor. The problem of identification of instrumental variable was solved by Anderson and Hsiao (1982).

According to them,earlier lag period is used as instrumental variable. More specifically, first difference or second difference of DV is considered as an instrument variable. But one of the problems with this method was that IVs should be specified and defined.

This method may be consistent but not efficient because IV doesn't exploit all the available moment conditions (Arellano and Bond, 1991). This stands for the basis of Arellano and Bond Estimators which were commonly known as Generalized Method of Moments from now onwards will be used as (GMM).

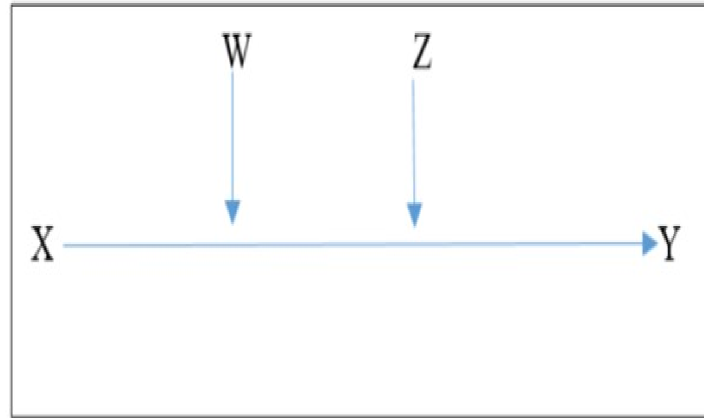
In this method of GMM when the independent variables are correlated with the error term it creates the problem of endogeneity and inconsistent estimates. In this a case, instrumental variables are used which provides unconditional population moment conditions. When these estimators satisfies the condition of unconditional population moment they are called GMM estimators.

Arellano and Bond estimators are called Difference GMM estimators as they use the IVs for the first difference equation earlier named as dynamic panel equation which takes care of the individual specific fixed effects. These IVs are defined at level. These estimators may be one-step Arellano-Bond estimators and two-step Arellano-Bond estimators.

In estimating GMM there are three types of variables called exogenous variable, endogenous variables and instrumental variables. An exogenous variable is one whose value is determined outside the model. An endogenous variable is synonymous with a dependent variable, meaning it correlates with other factors within the system being studied.

Therefore, its values may be determined by other variables and instrumental variable is having effect and correlated with independent variable but do not effect or correlate with DV. The other term to explain is instruments. There are two types of instruments, internal instruments and external instruments. The internal instruments are the lags of independent variables while external instruments are the variables outside the model. The data used in the current study is dynamic panel in nature therefore difference GMM is used for regression analysis with lag of independent variables. This decision of selection difference or system GMM is based on two rules of thumb.

FIGURE 3.4: General Moderation Relationship



3.11.1 Rule of Thumb 1(Blundell-Bond 1998)

"If the dependent variable in an equation was persistent and close to being a random walk which means that the parameter of the lad dependent variable is skewed towards 1, the application of the system GMM estimator yields both a biased and inefficient estimate of infinite samples with particularly a short period of time"

3.11.2 Rule of Thumb 2 (Bond 2001)

"The auto regressive model should be initially estimated by pooled OLS and fixed effects.

The pooled OLS estimates for the parameter of lag dependent variable should be considered an upper-bound estimate, while the corresponding fixed effects estimate should be considered a lower bound estimate"

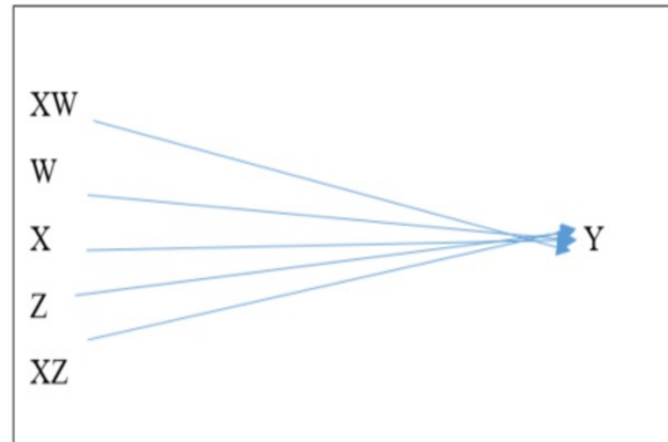
The conceptual model used in current research has two moderators. Therefore the statistical expression for this research is given in figure 3.4. In the above figure 3.4 X stands for in-dependent variable and Y is indicating the dependent variable.

Whereas two moderators are used in the expression as W and Z. Statistical diagram to explain the expression is given in figure 3.5.

Algebraic expression for the above statistical diagram is as follows

$$Y = b_0 + b_1X + b_2W + b_3Z + b_4XW + b_5XZ \tag{3.9}$$

FIGURE 3.5: Statistical Diagram for Moderation Relationship



Making groups in the form of

$$Y = a + bX \tag{3.10}$$

$$Y = (b_0 + b_2W + b_3Z) + (b_1 + b_4W + b_5Z)X \tag{3.11}$$

This expression shows one directional effect of X on Y which is conditional on W and Z. In the above expression, if the coefficient of interaction term is statistically significant either strengthen or weakens the relationship, then only variable is considered as a moderator and moderation is supported. Otherwise if this interaction term is in-significant then variable which is expected to be a moderator, only act as an independent variable. Insignificant results confirms no moderation effect, therefore moderation is not supported, Moderation effect " A moderating variable is a variable that has a contingent or conditional effect on the relationship between an independent variable and a dependent variable"

A moderating effect in an regression is defined as a presence of a variable that changes the influence of variable X on variable Y by giving an impact on the strength of relationship, direction of relationship and nature of relationship. All these parameters can be changed under a single value of moderator.

A moderator strengthen or weakens the relationship of independent variable on dependent variable from positive to negative or negative to positive. In general, the moderation effect contextualizing th effect of two variables. A variable to be

a moderator, it must not be the causal effect of independent variable. Moderator variable is also known as an interaction variable.

3.12 Estimation Model

The base line model for this study is
Firm Performance = f (Earnings Quality, political connections, firm size, liquidity, leverage, GDP, Inflation) General equation for GMM is

$$Y_{i,t} = \beta_0 + \Sigma_{j=1}^{n}\beta_j X_{j,i,t} + \gamma_j Y_{i,t-1} + u_{i,t} \tag{3.12}$$

The specific regression equations tested is mentioned below

$$\begin{gathered} FP_{i,t} = \alpha_0 + \alpha_1 EQIndex_{i,t} + \alpha_2 FS_{i,t} + \alpha_3 LIQ_{i,t} + \alpha_4 LEV_{i,t} + \alpha_5 \\ GDP_t + \alpha_6 INF_t + \alpha_7 FP_{i,t} + u_{i,t} \end{gathered} \tag{3.13}$$

$$\begin{gathered} FP_{i,t} = \beta_0 + \beta_1 EQIndex_{i,t} + \beta_2 PCN_{i,t} + \beta_3 BODIndex_{i,t} + \beta_4 FS_{i,t} + \beta_5 LIQ_{i,t} + \\ \beta_6 LEV_{i,t} + \beta_7 GDP_t + \beta_8 INF_t + \beta_9 FP_{i,t-1} + u_{i,t} \end{gathered} \tag{3.14}$$

$$\begin{gathered} FP_{i,t} = \gamma_0 + \gamma_1 EQIndex_{i,t} + \gamma_2 BODIndex_{i,t} + \gamma_3 PCN_{i,t} + \gamma_4 EQIndex_{i,t} \\ BODIndex_{i,t} + \gamma_5 EQIndex_{i,t} * PCN_{i,t} + \gamma_6 FS_{i,t} + \gamma_7 LIQ_{i,t} + \\ \gamma_8 LEV_{i,t} + \gamma_9 GDP_t + \gamma_{10} INF_t + \gamma_{11} FP_{i,t-1} + u_{i,t} \end{gathered} \tag{3.15}$$

Where

- FP is performance of the firm measured by ROA, ROE and PM
- EQ INDEX is created by an index of three most widely used proxies of EQ i.e., accruals, persistence and smoothness
- BOD INDEX is composite score of director's attributes
- PCN is political connectedness of director
- FS is the Firm size

• LIQ is Liquidity of the firm

• LEV is Leverage of the firm

• GDP is Gross Domestic Product

• INF is Inflation

• α is measure of estimated coefficients of variables EQ INDEX

• β is measure of estimated coefficients of variables BOD INDEX and PCN

• γ is used to explain the coefficients of interaction terms EQ INDEX *BOD INDEX and EQ INDEX*PCN

• u refers to error terms

To be more specific about the proxies of firm performance used in the regression, we get the following nine equations to be tested for effect of earnings quality on firm performance measures return on assets, return on equity and profit margin with the moderating role of board of directors' quality and political connections of the firm.

$$ROA_{i,t} = \alpha_0 + \alpha_1 EQIndex_{i,t} + \alpha_2 FS_{i,t} + \alpha_3 LIQ_{i,t} + \alpha_4 LEV_{i,t} + \alpha_5 GDP_t + \alpha_6 INF_t + \alpha_7 ROA_{i,t-1} + u_{i,t} \tag{3.16}$$

$$ROA_{i,t} = \beta_0 + \beta_1 EQIndex_{i,t} + \beta_2 PCN_{i,t} + \beta_3 BODIndex_{i,t} + \beta_4 FS_{i,t} + \beta_5 LIQ_{i,t} + \beta_6 LEV_{i,t} + \beta_7 GDP_t + \beta_8 INF_t + \beta_9 ROA_{i,t-1} + u_{i,t} \tag{3.17}$$

$$ROA_{i,t} = \gamma_0 + \gamma_1 EQIndex + \gamma_2 BODIndex_{i,t} + \gamma_3 PCN_{i,t} + \gamma_4 EQIndex_{i,t} * BODIndex_{i,t} + \gamma_5 EQIndex_{i,t} * PCN_{i,t} + \gamma_6 FS_{i,t} + \gamma_7 LIQ_{i,t} + \gamma_8 LEV_{i,t} + \gamma_9 GDP_t + \gamma_{10} INF_t + \gamma_{11} ROA_{i,t-1} + u_{i,t} \tag{3.18}$$

The second performance proxy used as performance measure for analysis is return on equity and is tested using the following equations.

$$ROE_{i,t} = \alpha_0 + \alpha_1 EQIndex_{i,t} + \alpha_2 FS_{i,t} + \alpha_3 LIQ_{i,t} + \alpha_4 LEV_{i,t} + \alpha_5 GDP_t + \alpha_6 INF_t + \alpha_7 ROE_{i,t} + u_{i,t} \tag{3.19}$$

$$ROE_{i,t} = \beta_0 + \beta_1 EQIndex_{i,t} + \beta_2 PCN_{i,t} + \beta_3 BODIndex_{i,t} + \beta_4 FS_{i,t} + \beta_5 LIQ_{i,t} + \beta_6 LEV_{i,t} + \beta_7 GDP_t + \beta_8 INF_t + \beta_9 ROE_{i,t-1} + u_{i,t} \tag{3.20}$$

$$ROE_{i,t} = \gamma_0 + \gamma_1 EQIndex_{i,t} + \gamma_2 BODIndex_{i,t} + \gamma_3 PCN_{i,t} + \gamma_4 EQIndex_{i,t} * BODIndex_{i,t} + \gamma_5 EQIndex_{i,t} * PCN_{i,t} + \gamma_6 FS_{i,t} + \gamma_7 LIQ_{i,t} + \gamma_8 LEV_{i,t} + \gamma_9 GDP_t + \gamma_{10} INF_t + \gamma_{11} ROE_{i,t} + u_{i,t} \tag{3.21}$$

The third proxy of firm performance is profit margin and is tested using the following set of equations.

$$PM_{i,t} = \alpha_0 + \alpha_1 EQIndex_{i,t} + \alpha_2 FS_{i,t} + \alpha_3 LIQ_{i,t} + \alpha_4 LEV_{i,t} + \alpha_5 GDP_t + \alpha_7 PM_{i,t-1} + u_{i,t} \tag{3.22}$$

$$PM_{i,t} = \beta_0 + \beta_1 EQIndex_{i,t} + \beta_2 PCN_{i,t} + \beta_3 BODIndex_{i,t} + \beta_4 FS_{i,t} + \beta_5 LIQ_{i,t} + \beta_6 LEV_{i,t} + \beta_7 GDP_t + \beta_8 INF_t + \beta_9 PM_{i,t-1} + u_{i,t} \tag{3.23}$$

$$PM_{i,t} = \gamma_0 + \gamma_1 EQIndex_{i,t} + \gamma_2 BODindex_{i,t} + \gamma_3 PCN_{i,t} + \gamma_4 EQIndex_{i,t} * BODIndex_{i,t} + \gamma_5 EQIndex_{i,t} PCN_{i,t} + \gamma_6 FS_{i,t} + \gamma_7 LIQ_{i,t} + \gamma_8 LEV_{i,t} + \gamma_9 GDP_t + \gamma_{10} INF_t + \gamma_{11} PM_{i,t-1} + u_{i,t} \tag{3.24}$$

3.13 Summary of the Chapter

A thorough discussion about methodology used in the study is presented in the above chapter. The procedure for data collection and estimation has been explained in detail. Furthermore detail explanation of each variable i.e., dependent variable, independent variable, moderator variables and control variables used in this study are explained in detail. Moreover, estimation models are explained

with step by step equations for detailed analysis. Also the data description with different diagnostic tests has been explained in the chapter.

Chapter 4

Empirical Results

4.1 Overview

This chapter of the study presents the empirical results for objectives of the study. The first objective was to find the impact of earning quality management on firm performance. Secondly, to find the impact of board of directors quality on the relationship of earnings quality and firm performance. To achieve the second objective board of directors' characteristics has been explained individually in descriptive statistics and their correlation is identified.

Then using GMM methodology, interaction effect of board of directors' quality index and earnings quality is explained. For achieving the third objective of the study, to find the impact of political connection on the relationship of earnings quality and firm performance, regression tests by applying GMM methodology is performed to explain the interaction effect of political connections and earnings quality.

This chapter is divided into eight sub-sections. Section 1 is about the overview of this chapter. In the next section 2 and section 3 descriptive statistics and correlation of the characteristics of board of directors has been explained. The descriptive statistics and correlation matrix of variables used in the main regression equation are presented in section 4 and section 5. The next section 6 as section 7 explains the results for the regression and their interaction effects. The final section 8 of the chapter provides summary of the chapter.

4.2 Diagnostic Tests

As identified previously that data used in the study is panel data therefore its techniques are used to investigate the effect of earnings quality with moderation of directors' quality and political connection on firm performance. It is panel data because it is a combination of cross-sectional data as well as time series data.

It has observations from same firm but with multiple time periods. When the data is panel in nature there are some important aspect such as heterogeneity which are not the problems of time series data and cross-sectional data. Data also confirms that all variables are stationary at level 1 and outlier has been removed.

4.2.1 Stationarity Analysis

The data in research is of two main categories, time series and panel. The validity of most of these models subject to the assumption that data is stationary. The most widely used test to check for data stationarity in time series and panel data is unit root test analysis. While dealing with panel data, we use specific test designed for for panel data individually as well as for the panel collectively. These two methods of testing leads to more reliable results. The data studied in the research is of panel in nature. In order to start with any regression test, the data is identified for stationarity. The two most widely used techniques of data stationarity are unit root tests by Levin et al. (2002) and Im et al. (2003). The null hypothesis for panel data is that all panels have a same unit root whereas the alternative hypothesis is that at least one panel does not have a unit root. In the case if even the null hypothesis is rejected, all panels must not be stationary. The results of these two tests are reported in Table 3.5. The values suggest that most of the variables used in the study are stationary at level 1. The probability values less than 0.05 accept alternative hypothesis of data stationarity at level 1.

4.2.2 Cointegration Test

The next diagnostic test after incorporating for data stationarity is cointegration. This cointegration is tested using Kao (1999). Cointegration basically tests the

long run relationship among the variables. The low p value rejects the null hypothesis of no cointegration, therefore we conclude that cointegration exists among variables.

TABLE 4.1: Cointegration Test

Kao Residual Cointegration Test		
	t-statistic	**Prob.**
ADF	-17.85	0.00
Residual variance	0.039	-
HAC variance	0.037	-

4.2.3 Heterogeneity

The problem of unobserved heterogeneity is the most common problem to be addressed in corporate governance studies especially when reviewing finance literature. It discusses the absence of one or more explanatory variable which results in biased and inconsistent variable estimates (Roberts and Whited, 2013). This heterogeneity is unobserved if we do not observed its cause. The companies in different industries differ from one another systematically, therefore the companies are not homogeneous but heterogeneous.

This heterogeneity depends on higher level of unit industries. So unobserved heterogeneity are any systematic differences between groups or clusters that we do not observe causes of. This unobserved heterogeneity is a problem for regression analysis because it violated the assumption of independence of observations. The reason behind is that as heterogeneity is unobserved it is something that must be accounted for by the error term because all the unobserved influences go to the error term.

Unobserved heterogeneity makes the error terms non-independent so the error in one cluster are more similar to one another than errors between two clusters. This unobserved heterogeneity also violates the assumption of no endogeneity

assumption that is "error term has expected value of zero given any values of independent variable". This unobserved effect is modeled by using three general strategies. The first strategy is ignore the unobserved effect and use cluster robust standard errors.

This takes care for the non-independence of observations but not when this unobserved effect is correlated with the observed predictors. So it has inconsistency and biasness. The second strategy is to eliminate the unobserved effect from the data. This modeling strategy is an easy to apply strategy and takes care of both the violation of no endogeneity assumption and the non-independence of observations.

The third strategy is to build a model that explicitly models this unobserved effect. This leads to multilevel modeling. In this model a latent variable is used for unobserved effect and then model how that latent variable relates to other variables. The problem of unobservable heterogeneity is studied for the most of regression cases such as special cases of linear GMM, ordinary least-squares and two-stage least squares (Antonakis and House, 2014). OLS ignores time and individual effects, analyzing only dependencies between the analyzed entities.

It is not the best method for panel data as OLS requires to assume exogeneity among the variables. As the panel data has endogeneity issue, OLS does not addresses this problem. OLS fixed effects partially address problems of endogeneity (Wooldridge, 2010). The other method to resolve this hetrogeneity problem is by using 2SLS regression technique. It identifies stage 1 exogenous variable which are not related to stage-2 dependent variable. But corporate governance and finance research literature especially the studies of earnings management uses lag variable approach to fulfil the problems of endogeneity.

4.2.4 Endogenity Test

Robustness of results of the study is ascertain through some statistical procedures. But this robustness is questioned if the variables have the problem of endogenity or omitted variables bias. Endogenity discusses the issue of change in dependent variable causing a change in independent variable. This change can be negative or positive. If there is any such causal relationship, these dependent and independent

Table 4.2: Endogenity Identification

Statistical Outputs of Wald Test			
Test	**Value**	**Df**	**P-Value**
F-statistic	2.18	(8,1236)	0.02
Chi-square	17.47	8	0.02

variables falls in the category of endogenous variables and have reverse causality. In the current study, change in dependent variable firm performance affect the independent variable earnings quality index. To confirm this issue "the Granger causality Wald test" is applied and the results are reported in Table. The null hypothesis for this test states that "lagged values of independent variable do not explain the variation in dependent variable". The p-value of 5% or more than 5% tolerates the null hypothesis of no causality. Therefore it can be claimed that the dependent variables of firm performance have no causal effect on any of the independent variables. As the data used for this study is panel in nature and most of the explanatory variables are not exogenous therefore there are chances for endogenity. For confirming it, Wald test is applied. Significant values indicates the presence of endogenity issue which means correlation exists between residual term and explanatory variable (Gudicha et al., 2016).

4.2.5 Data Analysis Technique

After the detailed discussion mentioned above, and the issue of endogenity is identified, the best suitable method to run regression analysis is instrumental variable regression. This regression analysis is known as Gernalized Method of Moments (GMM). It is also called the AB model of regressionin which suitable instrument ranks are adressed to remove endogenity problem (Holtz-Eakin et al., 1988; Arellano and Bond, 1991).

The number of cross-sections in this study are greater than time-series, therefore the model is dynamic panel. It has used first difference transformation (Roodman, 2009). This GMM estimation technique consideres one-year lagged value of dependent variable is to address the problem of endogenity. In GMM method

the lagged value of dependent variable ROA, ROE and PM is used as a regressor. This dependence of variable on its own lag makes the model dynamic (Haris et al., 2019; Islam, 2014).

Applying this GMM technique, first difference transformation removes cross-section fixed effects. Where as instrumental variables used in the study reduces the correlation between residual term and explanatory variable which is causing endogenity (Blundell and Bond, 1998).

After working with all diagnostic tests and component analysis studies, now the regression equation seems clear to be calculated. The variables used in the regression equation no 1 are explained in table 3.

Table 4.3: Panel Unit Root Test Analysis

	LLC		**Im, Pesaran and Shin W-stat**	
	First Deference		**First Deference**	
Variables	**Statistic**	**Prob.**	**Statistic**	**Prob.**
BOD INDEX	-4.46	0.00	-6.62	0.00
EQ INDEX	-2.32	0.00	-2.41	0.00
FS	-1.96	0.00	-2.43	0.00
LIQ	-2.24	0.00	-3.32	0.00
LEV	-5.43	0.00	-2.32	0.00
GDP	-1.71	0.00	-5.42	0.00
INF	-3.23	0.00	-1.12	0.00
ROA	-2.16	0.00	-1.30	0.00
ROE	-1.20	0.00	-2.31	0.00
PM	-3.11	0.00	-2.68	0.00

Abbreviations: *BOD Index= Index for Quality of Board of Directors, EQ Index = Index for Earning Quality, FS = Firm Size, LIQ = Liquidity, LEV = Leverage, GDP= economic growth, INF = Inflation, ROA = Returns on Assets, ROE = Return on Equity, PM=Profit margin Source: own calculation*

4.3 Descriptive Statistics of Characteristics of Board of Directors Index (BOD Index)

Table 4.1 shows the results for descriptive statistics of each variable used in creating BOD Index. The table shows that average number of members on board is 8 with maximum size of 16 members and minimum of 5 members on board. On average a director is of 60 years in age with a maximum of 79 years and minimum of 49 years and has directorship on the board of seven companies with stock ownership of 34% in overall shares of the company. The statistics shows that only 5% of females are working as board of director in each company.

TABLE 4.4: Descriptive Statistics of Board of Director's Quality

	Mean	**Median**	**Std. deviation**	**Maximum**	**Minimum**	**Unit of measurement**
BS	8.45	8.00	1.80	16.00	5.00	No of members
BCS	0.92	1.00	0.27	1.00	0.00	Binary form
CDU	0.98	1.00	0.14	1.00	0.00	Binary form
IND	0.09	0.11	0.09	0.66	0.00	Percentage
DLG	5.94	5.60	1.86	15.00	1.20	Percentage
EXP	0.87	1.00	0.33	1.00	0.00	Binary form
KNW	1.00	1.00	0.00	1.00	0.00	Binary form
GENF	0.05	0.00	0.08	0.57	0.00	Percentage
DIV	0.36	0.00	0.60	3.00	0.00	Percentage
STOW	0.34	0.11	2.02	49.56	0.00	Percentage
MOT	1.00	1.00	0.00	1.00	1.00	Binary form
AAGE	60.61	60.00	6.43	79.00	45.00	Average no of years
DIOC	7.58	7.00	1.77	11.00	5.00	Average number of directorship

Abbreviations: BS=Board size, BCS=board compensation, CDU= CEO duality, IND=independent directors on board, DLG=average no of meeting attended by directors, EXP= Average number of years the firm's director has served on the board, KNW= Minimum 14 years of qualification, GENF= Percentage of female directors in total board size, DIV= non-Muslim director on board, STOW= Percentage of shares held by board of directors and their family members, AAGE= Average Age of directors, DIOC= Average number of total additional boards on which each director serve, REDI= re-elected in the company's general elections. Source: own calculation.

Note: 0.7 to 1.0 (-0.7 to -1.0) is positive (negative) correlation, 0.5 to 0.7 (-0.5 to -0.7) is moderate positive (negative) correlation and 0.5 (-0.5) to 0 is low or negligible correlation.

4.4 Correlation Matrix of Characteristics of Board of Directors Index (BOD Index)

The next Table 4.2 reports correlation analysis of variables of board of directors in this study. The correlation trend between these variables indicates that each variable is correlated to each other variable.

The correlation matrix is a statistical test which identifies the relationship of different variables in a single set of data. It appears in the form of a matrix table in which each cell has a correlation coefficient between two variables. The value 1 in correlation matrix is considered highly strong relationship whereas 0 is indication of a neutral relationship and -1 is considered as not a strong relationship or weak relationship.

Greater values in correlation matrix is the indication of a very serious collinearity among the variables under consideration. When there is no existence of higher correlations, the variables of study still have correlations. It does not suggest nonexistence of collinearity. In case of multiple regression, the regressor variables is at risk of high multicollinearity even when no pairwise correlations is present.

The directors characteristics including diversity, diligence, female directors on board, independent directors and percentage of stock ownership has positive correlation with average age of directors in years whereas board size, board compensation, CEO duality, directorship in other companies, experience of directors, their knowledge and motivation has a strong negative relation with average age of directors.

The political connection of board of directors (PCN) is negatively correlated with indexes of earnings quality and board of directors' quality with a coefficient of 0.013 and 0.002. The size of the firm variable (FS) which is acting as a control variable is negatively correlated with other three variables named as earnings quality index, board of directors' quality index and political connection with coefficient values of 0.133, 0.149 and 0.018 respectively. The next control variable is leverage which is of the firm (LEV) which is positively correlated with EQ Index, BOD Index and political connections of the firm. Liquidity of the firm is negatively correlated with all other variables of the study.

Table 4.5: Correlation Matrix of Board of Director's Quality

	AAGE	**BS**	**BCS**	**CDU**	**DIOC**	**DIV**	**DLG**	**EXP**	**GENF**	**IND**	**KNW**	**MOT**	**STOW**
AAGE	1.00												
BS	-0.95	1.00											
BCS	-0.95	1.00	1.00										
CDU	-0.95	1.00	1.00	1.00									
DIOC	-0.08	0.17	0.17	0.17	1.00								
DIV	0.95	-1.00	-1.00	-1.00	-0.17	1.00							
DLG	0.92	-0.96	-0.96	-0.96	0.00	0.96	1.00						
EXP01	-0.95	1.00	1.00	1.00	0.17	-1.00	-0.96	1.00					
GENF	0.95	-1.00	-1.00	-1.00	-0.17	1.00	0.96	-1.00	1.00				
IND	0.30	-0.38	-0.38	-0.38	-0.97	0.38	0.21	-0.38	0.38	1.00			
KNW	-0.95	1.00	1.00	1.00	0.17	-1.00	-0.96	1.00	-1.00	-0.38	1.00		
MOT	-0.95	1.00	1.00	1.00	0.17	-1.00	-0.96	1.00	-1.00	-0.38	1.00	1.00	
STOW	0.93	-0.99	-0.99	-0.99	-0.19	0.99	0.95	-0.99	0.99	0.40	-0.99	-0.99	1.00

Abbreviations: BS=Board size, BCS=board compensation, CDU= CEO duality, IND=independent directors on board, DLG=average no of meeting attended by directors, EXP= Average number of years the firm's director has served on the board, KNW= Minimum 14 years of qualification, GENF= Percentage of female directors in total board size, DIV= non-Muslim director on board, STOW= Percentage of shares held by board of directors and their family members, AAGE= Average Age of directors, DIOC= Average number of total additional boards on which each director serve, REDI= re-elected in the company's general elections. Source: own calculation.

4.5 Board of Directors Quality Index Creation

As explained earlier, the characteristics of board of directors are having the problem of multicollinearity. All of these characteristics are have greater importance in analyzing the quality of board of directors. We cannot exclude these variables from the list because all of them have important information regarding a good board. It can also create the problem of omission of relevant variables. In order to avoid such situation, the best method to adopt is to perform component analysis as it is the primitive method to deal with multi collinearity.

In order to create BOD Index, PCA method is used to reduce dimensionality of our data for BOD quality containing thirteen variables. All variables have different nature so they are standardized by subtracting mean from the individual value and dividing it by standard deviation. This has given us all variables in same scale. After standardization, covariance of these variables is computed to identify correlations and PCA technique is applies. Factors of first principal components are taken for BOD Index.

4.6 Descriptive Statistics

Table 4.3 reports the results for descriptive statistics of each variable used in the regression model. There are 1254 observations in the model.

The average number of firms that are politically connected is 0.675. It is an indication that near to three quarter of the board of directors have any kind of direct or indirect political connections in listed firms in Pakistan. It confirms the influence of political connections in companies and are common in Pakistan (Cheema et al., 2016). These findings support the studies that developing countries firms are having more than half of politically influenced firms (Faccio, 2010; Hashmi et al., 2018).

The index created for board of directors' quality is maximum of 1058 and minimum of -0.659. Similarly the index created for earnings quality has maximum value of 205 and minimum value of 0.00. As these two variables are indexes and composite scores therefore their maximum and minimum values does not give any special

interpretation in descriptive statistics. For the controlled firm specific variables following statistics have been identified. The average firm size of the firms included in the sample is Rs. 16.20bn. The maximum size is of Rs. 20.45bn and minimum size of the firm is Rs. 10.59bn. the liquidity for sample data firms is 1.43 on average with maximum and minimum values of 2.22 and 0.041. This means that the firms in the sample are able to convert their assets easily into cash with a value of 1.4. This is an average value indicating that businesses are able to convert their assets. The average value of GDP and inflation for the specified period of time is 3.8 and 8.1 respectively. Also the statistics shows that sample firms have average return on assets is of 10 percent, return on equity of 20 percent and profit margin of 8 percent respectively. It indicates that overall firms have good stability in terms of their returns.

4.7 Correlation Matrix

Correlation analysis is performed to show the relationship strength between two variables. In this current study, these variables are earnings quality, board of director's quality, political connections and firm performance. The range of correlation between variables is from -1 to +1. The value closer to -1 shows a negative relationship while the values closer to +1 is a confirmation of perfect correlation among the variables. The correlation matrix of each variable is presented in Table 4.4. The two indexes of board of directors' quality and earnings quality have a minimum correlation.

The political connection of board of directors (PCN) is negatively correlated with indexes of earnings quality and board of directors' quality with a coefficient of 0.013 and 0.002. The size of the firm variable (FS) which is acting as a control variable is negatively correlated with other three variables named as earnings quality index, board of directors' quality index and political connection with coefficient values of 0.133, 0.149 and 0.018 respectively. The next control variable is leverage which is of the firm (LEV) which is positively correlated with EQ Index, BOD Index and political connections of the firm. Liquidity of the firm is negatively correlated with all other variables of the study.

Table 4.6: Descriptive Statistics of variables

Variables	Obs.	Mean	Median	Std. deviation	Maximum	Minimum
EQ Index	1254	0.170	-0.521	0.300	2.513	0.001
BOD Index	1254	0.007	-0.521	0.929	1.588	-0.659
PCN	1254	0.675	1.000	0.468	1	0
FS	1254	16.20	16.18	1.624	20.45	10.59
LIQ	1254	1.436	1.124	1.190	2.221	0.041
LEV	1254	3.889	1.368	5.102	5.623	0.022
GDP	1254	3.869	4.396	1.536	5.836	1.144
INF	1254	8.112	7.692	3.745	13.64	2.529
ROA	1254	10.70	8.000	11.13	15.00	0.80
ROE	1254	12.79	13.00	31.95	16.20	0.10
PM	1254	8.69	7.000	12.51	1.203	0.081

Abbreviations: EQ Index= Earnings quality index, BOD Index= board of directors' quality index, PCN= Political connections, FS= firm size, LIQ = Liquidity, LEV = Leverage, GDP = economic growth, INF = Consumer price index, ROA = return on assets, ROE = return on equity, PM = profit margin
Source: own calculation.

Table 4.7: Correlation Matrix of Variables

	EQ INDEX	**BOD INDEX**	**PCN**	**FS**	**LEV**	**LIQ**	**INF**	**GDP**	**PM**	**ROA**	**ROE**
EQ INDEX	1										
BOD INDEX	0.051	1									
PCN	-0.013	-0.002	1								
FS	-0.133	-0.149	-0.018	1							
LEV	0.027	0.069	0.040	0.002	1						
LIQ	-0.174	-0.046	0.012	-0.015	-0.097	1					
INF	0.055	0.756	-0.002	-0.127	0.050	-0.059	1	**-**			
GDP	-0.057	-0.560	-0.002	0.073	-0.038	0.054	-0.852	1			
PM	-0.103	-0.003	-0.026	0.127	-0.024	0.242	-0.009	0.014	1		
ROA	0.138	0.068	-0.002	-0.067	0.004	0.021	0.069	-0.022	0.204	1	
ROE	0.002	0.057	-0.053	-0.078	0.143	-0.105	0.063	-0.035	0.218	0.342	1

Abbreviations: EQ Index= Earnings quality index, BOD Index= board of directors' quality index, PCN= Political connections, FS= firm size, LIQ = Liquidity, LEV = Leverage, GDP = economic growth, INF = Consumer price index, ROA = return on assets, ROE = return on equity, PM = profit margin Source: own calculation.

Note: 0.7 to 1.0 (-0.7 to -1.0) is positive (negative) correlation, 0.5 to 0.7 (-0.5 to -0.7) is moderate positive (negative) correlation and 0.5 (-0.5) to 0 is low or negligible correlation.

The table shows correlation of board of directors' quality index, earnings quality index and political connections of the firm with all the three performance measures used in the study named as ROA, ROE and PM. There is positive correlation of the earnings quality index with two of the performance measures called return on /assets and return on equity. While it is negatively correlated with profit margin as measure of firm performance.

Similarly there is a positive relationship of ROA and ROE with board of directors' quality index and negatively correlated with profit margin of the firms. The negative relationship of political connections and firm performance (ROE, ROA, PM) indicate that firm engage in political connections to achieve better performance. Higher correlation of political connections and firm size illustrates that if the political connectedness of directors' increases, it increases the size of firm.

Similarly this association will increase liquidity of the firm and leverage. The values of correlation below 0.8 are indicative of no multicollinearity and all values in the matrix are less than 0.80 so there is no multicollinearity for the given set of variables.

4.8 Empirical Results

The statistical results of Eq.no 3.14,Eq.no 3.15 and Eq.no 3.16 are reported in Table 4.5, Table 4.6 and Table 4.7 respectively. Using ROA and ROE and PM as proxy for firm performance, EQ INDEX has negative significant relation with all the proxy for firm performance.

The significant results of earnings quality with all three proxies of firm performance indicates that quality of earnings in a firm effects its performance. The significant result shows that earnings manipulations are done with the intention of increasing firm performance works in a given setting.

The regression results for the effect of political connection as an independent variable on firm performance are presented in Table 4.6. The significant coefficient for the effect of political connection on firm performance states that if any of the direct or indirect political connection is present in the firm, it causes 5% to 7%

Table 4.8: Effect of earnings quality index on firm performance

	ROA		**ROE**		**PM**	
	Coef.	t-stat	Coef.	t-stat	Coef.	t-stat
Experimental Variable						
ROA(-1),	-0.005***		0.015**		0.051***	
ROE(-1),		-4.231		2.03		3.23
PM(-1)	(0.001)		(0.007)		(0.015)	
	-0.077*		-0.071***		-0.052***	
EQ_Index		-1.98		-4.23		-3.22
	(0.038)		(0.016)		(0.016)	
Control Variable						
	0.196***		0.153***		0.132***	
FS		3.22		3.65		4.23
	(0.06)		(0.041)		(0.03)	
	-0.203*		0.161***		0.174***	
LIQ		-1.953		5.23		5.27
	(0.103)		(0.030)		(0.033)	
	0.392***		0.213*		-0.232***	
LEV		3.22		1.95		-3.26
	(0.121)		(0.109)		(0.071)	
	0.045***		0.052***		0.038***	
GDP		6.32		4.23		4.84
	(0.007)		(0.012)		(0.0078)	
	0.106***		0.136***		0.131***	
INF		7.45		3.11		2.39
	(0.014)		(0.043)		(0.054)	
N	**1254**		**1254**		**1254**	

Note: standard errors are reported in parenthesis; *, **, *** denoting the level of significance at 10%, 5% and 1%, respectively.

decrease in performance measure parameters. The results of the regression clearly show that political connections are significantly and negatively associated with firm performance.

These findings of the study are similar to the results of (Ullah & Kamal, 2019). They have indicated a negative relationship of political connections and firm performance for small size sample firms in Pakistan. Similar results have been found by Cheema & Sophia, (2016) for different industries in Pakistan. These findings of the study reject general observation that firms that are politically connected perform better than those having no political association i.e, they are non-connected firms.

Another interesting results of effect of political connections on firm performance has been studied by Zhu & Chung (2014) for Taiwanese firms. The study shows that firms own resources, the capabilities of managers and experiences in the industry are good enough to achieve firm's goals even they have no political connections.

Similarly, significant results of BOD Index with FP indicates that greater the quality of board is, higher will be the returns of the firm. A higher negative coefficient of BOD Index with ROE indicated that if boards are of better quality then performance of the firm is decreased. This negative significance is a point to consider that for Pakistani non-financial sector there is a gap in good quality of boards.

The annual reports and profits of the firms are shown as good to attract investors but only when directors are not fully involved in the matter. If a good quality board checks the financial matters of any firm then true picture of the firm will be presented to general public which actually does not supports the company.

The statistics show that the size of the firm is positively related to firm performance measures. The results of leverage with firm performance shows negative association among these two variables.

The significant results of earnings quality with all three proxies of firm performance indicates that quality of earnings in a firm effects its performance. The significant result shows that earnings manipulations are done with the intention of increasing firm performance works in a given setting.

Table 4.9: Effect of Earnings Quality, Political Connections and Board of Directors' Quality Index on Firm Performance

	ROA		**ROE**		**PM**	
	Coef.	t-Stat.	Coef.	t-Stat.	Coef.	t-Stat.
Experimental Variable						
ROA(-1),	-0.046***		0.161***		0.486***	
ROE(-1),		-12.43		5.01		11.26
PM(-1)	(0.003)		(0.032)		(0.043)	
	-10.424***		13.856***		3.304*	
EQ_Index		-13.54		16.05		1.83
	(0.769)		(0.863)		(1.805)	
	0.589***		-1.752*		-0.219**	
BOD_Index		6.38		-1.96		-1.98
	(0.092)		(0.893)		(0.110)	
	-3.584***		-4.765***		-0.861**	
PCN		-6.57		-7.31		-7.91
	(0.545)		(0.651)		(0.108)	
Control Variable						
	0.196***		0.153***		0.132***	
FS		3.71		3.29		2.31
	(0.052)		(0.046)		(0.057)	
	-0.203***		0.161***		0.174***	
LIQ		-2.16		2.65		3.52
	(0.093)		(0.060)		(0.049)	
	0.392***		0.213*		-0.232***	
LEV		4.52		1.97		-6.41
	(0.086)		(0.108)		(0.036)	
	0.045***		0.052***		0.038***	
GDP		7.61		2.65		2.11
	(0.005)		(0.019)		(0.018)	
	0.106***		0.136***		0.131***	
INF		3.03		2.96		2.67
	(0.034)		(0.045)		(0.049)	
N	**1254**		**1254**		**1254**	

Note: *, **, *** denoting the level of significance at 10%, 5% and 1%, respectively.

Abbreviations: EQ Index= Earnings quality index, BOD Index= board of directors' quality index, PCN= Political connections, FS= firm size, LIQ = Liquidity, LEV = Leverage, GDP = economic growth, INF = Consumer price index, ROA = return on assets, ROE = return on equity, PM = profit margin Source: own calculation

4.9 Interaction Results of Political Connections and Earnings Quality

Table 4.7 shows the moderation effect of political connections and earnings quality and moderation effect of board of director's quality and earnings quality on firm performance. This interaction effect has been calculated using the analysis technique of GMM model. For the current study, three parameters of performance have been taken for analysis named as ROA, ROE and PM as proxy for firm performance. The significant and negative coefficient of interaction between EQ Index (earnings quality index) and PC (political connection) indicates the negative effect of manipulating earnings on performance measures of firms having politically connected directors as their board members. This interaction is negative for return on assets and return on equity while significant and negative for profit margin as performance measure. The significant results specifies and supports the hypothesis that political connections of directors of the firm effects its performance by handling important accounts.

The index created for measuring earnings quality has a negative and significant affect on performance measures. Theoretically, the earnings are manipulated to increase firm performance. The finding of the study does not support this relation and identifies that Pakistani non-financial firms show decreases the performance when there accounts are manipulated. The results are significant at 10% level of significance indicating low chances of occurrence for this moderation effect. Although this significance value is very low still exists in the statistical form and is equally important. This negative association between earnings quality and performance is consistent with the study of Sadiq and Othman (2017) who established the same link for total accruals. The same results have been concluded for Iranian non-financial sector for accrual based earnings management (Zimon et al., 2021). Therefore it is clear from the findings that in the presence of political connections the effect of earnings quality on firm performance turn out to be more rigorous. An important point to consider here is that investor in this point of time, consider the earnings of firms that are politically connected to be of low quality if accounting numbers are influenced (Islam, 2014). The findings of this study also support

the empirical findings of Wu et al. (2012). They have also found a relationship of earnings management and politically connected firms to be influential. They concluded that firms that are involved in political connections also involve in earnings management. The purpose behind this number game is to show unrealistic earnings.

The findings of the study are in line with the studies of Ismail (2015) who have concluded that firms that have political associations effects earning management practices and provide more positive benefits to the firms than non-connected firms Chang et al. (2019). The findings are also relating with Sadiq and Othman (2017); Hashmi et al. (2018) who concluded that political affilpiations of the firms play an important part in manipulating books of accounts and financial reporting quality to effect firm performance.

Secondly, the table 4.7 shows the moderating effect of board of director's quality index on the relationship of earnings quality and firm performance using GMM model as analysis technique. First column shows the results with ROA as dependent variable. Significant results of ROA and EQ INDEX depicts the problem of simultaneity in both variables as ROA is predictive variable of accruals which is used in creating EQ Index.

When ROE is used as dependent variable, the results are significant at 1% level of significance. So one of the important findings of this study is that when we want to check the effect of earnings quality on firm performance, return on equity should preferably be used to capture the accurate predictive results. The negative significant values of coefficients of earnings quality, quality of board of directors are presenting unconventional results that all are causing decrease in firm performance in case of Pakistani selected non-financial firms.

Another important point to discuss here is that when quality of board of directors act as a moderator in this relationship, results remain significant but with a positive coefficient for return on assets and insignificant for return on equity and profit margins.

Quality of board of director strengthen the relationship, indicating that if firms want to reduce their earnings management practices they must improve their quality of board of directors.

Table 4.10: Moderating Effect of Earnings Quality, Political Connections and Board of Directors' Quality Index on Firm Performance

Dependant Variable Firm Performance						
	ROA		**ROE**		**PM**	
Experimental Variable						
	Coef.	**t-Stat.**	**Coef.**	**t-Stat.**	**Coef.**	**t-Stat.**
ROA(-1),	-0.061***		0.169***		0.423***	
ROE(-1),		-3.21		2.33		3.26
PM(-1)	(0.019)		(0.072)		(0.129)	
	-4.293***		2.637*		-6.541***	
EQ_INDEX		-7.31		1.96		-2.98
	(0.587)		(1.34)		(2.194)	
	-0.848***		-3.001***		-0.597	
BOD_Index		-2.58		-4.12		-1.84
	(0.320)		(0.72)		(0.32)	
	-1.371***		3.088		-6.783***	
PCN		-3.52		0.85		-4.53
	(0.38)		(3.63)		(1.49)	
	5.992***		3.564		0.721	
EQ_INDEX* BOD_Index		11.32		1.34		0.96
	(0.52)		(2.65)		(.751)	
	-7.858***		-3.435***		3.135**	
EQ_INDEX* PCN		-7.22		-6.23		1.98
	(1.088)		(0.551)		(1.583)	
Control Variable						
	0.172***		0.161***		0.121***	
FS		5.61		2.13		2.33
	(0.030)		(0.075)		(0.051)	
	0.038***		0.014***		0.074***	
LIQ		4.82		2.11		2.62
	(0.005)		(0.006)		(0.028)	
	-0.121**		-0.170***		-0.132***	
LEV		-1.99		-3.64		-3.18
	(0.06)		(0.046)		(0.041)	
	0.041***		0.061***		0.012***	
GDP		4.23		2.58		2.12
	(0.009)		(0.023)		(0.005)	
	0.121***		0.290***		0.211***	
INF		5.11		6.88		3.91
	(0.023)		(0.042)		(0.053)	
N	**1254**		**1254**		**1254**	

Note: *, **, *** denoting the level of significance at 10%, 5% and 1%, respectively.

Abbreviations: EQ Index= Earnings quality index, BOD Index= board of directors' quality index, PCN= Political connections, EQ Index*BOD Index= Interaction term of earnings quality and board of directors' quality index, EQ Index*PCN = Interaction term of political connections and earnings quality, FS= firm size, LIQ = Liquidity, LEV = Leverage, GDP = economic growth, INF = Consumer price index, ROA = return on assets, ROE = return on equity, PM = profit margin

Source: own calculation.

4.10 Robustness of Results

Statistical procedures and multiple measures are used to ascertain the robustness of finding of research analysis. In this study, three measures of firm performance (ROA, ROE, and PM) have been considered for robustness. The nature of these return on assets and return on equity is different in many aspects such as ROA is used to efficiency of a business with respect to assets while ROE measures the profitability with respect to equity. Problems of endogeneity or problem of omitted variables is the most common issue in financial studies. This endogeneity problem is addressed by using "the Granger causality Wald test".

4.11 Summary of the Chapter

This chapter discusses the statistical results of the regression equations tested in this study. The software used for the current analysis is Eviews and technique used for regression analysis is GMM. First the results for index of board of directors have been presented with each step performed for the analysis.

Then the descriptive statistics and correlation matrix are presented for variables of the study. Finally results for interaction relationship of earnings quality and board quality and interaction relationship of political connections and earnings quality have been presented. The discussion on each of these results will be presented in the next chapter.

Chapter 5

Conclusion

This section of the study provides the discussion of findings and results of role of board of director's quality on the relationship of earnings quality and firm performance. The moderator used in the study is board of director's quality and this variable is created using thirteen characteristics of board of directors. As the director's attributes are influenced by demographic and geographical conditions, this study is based on the Pakistani firm's data. For getting maximum effect of earnings quality an index of three widely used proxies have been created and similarly a combine effect of characteristics of directors has been calculated. This study has used GMM model for statistical analysis and results with three proxies of firm performance ROA, ROE and PM has been presented in Table 4.5, Table 4.6 and Table 4.7. The coefficients for earnings quality showing significant relation illustrations that it has an impact on performance of the firm when return on assets is used as a proxy for explanatory variable, while significant relation with return on equity and profit margin explains that earnings quality causes decrease in overall firm performance.

Companies involving in any kind of number management are actually lowering their actual returns on capital investments. Also quality of board of directors has positive significant relation in causing earnings manipulations. This point is important to discuss that if board of director's quality is improved, it helps in decreasing number manipulations and ultimately increases firm performance. Whereas when identifying the moderation effect, it is clear from table 4.7 that quality of board of directors significantly strengthen the relationship of earnings

quality and firm performance. Although this coefficient for interaction term is very low and significant at 10% level of significance, yet it is a good indication that if quality of board of director's is improved than Pakistani companies can run smoothly without indulging in numbers game. These findings are in-line with that good skills of leadership improves earnings quality (Asogwa et al., 2019).

Similarly, Rezaee and Safarzadeh (2023) confirms the significant association of governance with earnings quality. This relationship is significant whether any of the proxy is taken for study. If the governance mechanism is good, it results in less earnings smoothness. Also it makes earnings more persistent, predictable and causes low value relevance.

In the context of Pakistani corporate culture, since the regulatory board SECP has made mandatory to comply with codes of corporate governance, its results can been shown in this current study that if companies comply more with guide lines for director's selection provided by SECP, a good board will definitely enhance the actual firm performance ultimately reducing the need for number management.

The main reasons of significant relation of quality of directors in listed companies of Pakistan include reasons such as family owned businesses, delays in payment of salaries, lack of time to professionals, not good reputation in terms of corporate practices and salary payments, lack of necessary knowledge, relationship based and family owned companies create unbalance power. This concept of study can be extended in future by identifying some other characteristics of directors and for each specific country for research.

Although these relationships of board of directors and firm performance are significant but there are some reasons behind poor governance. These include

1. Executive directors forgot the corporate ethics

2. Earning is the notion of success or failure. Directors want to hide true profits or losses and involve in unethical practices of creative accounting or falsification of books to show higher or lower earnings.

3. Board of directors approve improper or falsified financial statements.

Some other reasons for board of directors not performing their true role as a good manger include rubber stamp board, good old boys board, paper board and trophy

boards. Each of these are defined in appendix 3. These all categories of board of directors have been created because the team of directors actually ignore their real role and responsibility to work for ensuring individual and collective interests of all stakeholders.

The results of this study are in line with the finding of Beyer et al. (2019) who argued that EQ alone has no meaning but it works is some specific settings, so earnings quality is good to study in accordance with decisions depending on director's section of firm.

Every human prefers his self-interest. Shareholders of the firm are concerned with informed updates regarding operations of the firm. For this purpose they need a mechanism called corporate governance to observe managers and reduce assumption thought and information asymmetry. They select CEOs liable for firm performance.

5.1 Recommendations

Governance is not a single number or measure that has one time effect on accounting records or performance of firm. Rather it has its roots deep in the organization that its effects last for several years. Because of this reason Code of Corporate Governance are continuously being updated for better outputs. These accounting records are painted with earnings management techniques.

Earnings management has negative effect on earnings quality and weakens the credibility of financial accounting reporting. It has adverse effect on financial reporting and use in masking the decision of the management. The complexity of accounting rules makes earnings management difficult for individual investors to detect. It is generally observed that firms with larger accruals and weak governance engage in earnings accounting.

Financial report of any company is the depiction of firm performance and measures any company's health over certain period, therefore most of the financial decisions are taken on these basis. Investors expect that financial reports present the true reality of financial performance and reflects the competencies of management of the

firm. One good use of earnings manipulation is to shift earnings from peak earnings period to less successful period. Earnings management is not truly documented in accounting research (Ball, 2013).

The study is contributing in research by explaining the role of board of directors and their political affiliations on the relationship of earnings quality and firm performance. As explained earlier that every variable of governance works in specific setting, this research explains the role of board of directors in determining manipulations in accounting records. The study is intended to provide basic guidelines to policy makers to select directors according to the specifications provided in code of corporate governance.

Similar to the recommendations of Shaheen and Iqbal (2022) for the case of Pakistani companies. Selection of director should be made keeping in view the factors of qualification, experience, average age, independent and foreign directors, percentage of non-Muslim director on board, shares in the company and number of boards on which director serve. An efficient monitoring by an effective board can correlate the performance accordingly.

This study makes following contributions to the literature. First it adds to the Corporate Governance literature by supporting principal-agent relationship that board quality attributes such as board independence, knowledge, tenure, number of directorship held, and number of meetings attended by directors affect the firm. The quality of board attributes are directly linked with the performance of the firm, therefore they must be taken in consideration when analyzing quality of corporate governance in a firm. The reason behind that good corporate governance practices leads to better performance. These attributes are more important than ownership styles. Secondly when this channel is taken in consideration its ultimate effect is on firm performance. Thirdly it adds to the dimension that above channel results in the high (low) performance of the firm, if corporate governance practices are good (bad) especially when considering the role of board quality and it should last for several years.

Based on the empirical outcomes of the study, it can be argued that Pakistani corporate culture has not a satisfactory investor protection mechanism. They have high information asymmetry and when investor's analyses corporate information,

true disclosure of such information will be helpful in analyzing performance by investors and financial analysts, ultimately be represented in stock market. The positive significant results are providing an insight that corporate finance decisions are dependent on board characteristics in firms who have all of described characteristics on its board. Therefore board of directors should be considered as an independent factor in making investment decisions.

The study is equally useful for academicians, investors and regulators to determine the board quality characteristics. The quality of board created can also be taken as independent variable in creating corporate governance index when studying literature on corporate governance because it is more important than other governance parameters. Overall the results of this study can add value for improving quality of corporate governance and earnings quality system in Pakistan.

This study provides results of role of political affiliations on the relationship of earnings quality and firm performance. The moderator used in the study is political connections described as a dummy. As the political affiliations of directors are influenced by demographic and geographical conditions, this study is based on the Pakistani firm's data. For getting maximum effect of earnings quality an index of three widely used proxies have been created. This study uses GMM model for statistical analysis and results with three proxies of firm performance ROA, ROE and PM has been presented in Table 6.

The coefficients for political connections shows significant results indicating that it has negative impact on performance of the firm when return on assets, return on equity and profit margin is used as a proxy for explanatory variable, explains that political connections causes decrease in overall firm performance. Companies involving in any kind of number management are actually lowering their actual returns on capital investments. This point is important to discuss that if political connections of board of directors is removed, it helps in decreasing number manipulations. Whereas when identifying the moderation effect, it is clear from Table 6 that political affiliations of board of directors significantly weakens the relationship of earnings quality and firm performance.

Although this coefficient for interaction term significant at 10% level of significance, yet it is a good indication that if political connections of directors are

removed and focus is on the capabilities and competencies of management than Pakistani companies can run smoothly without indulging in numbers manipulations. These findings are in-line with that good skills of leadership improves earnings quality (Asogwa et al., 2019). Similarly,**Razaee and Safarzadeh (2003)** confirms the significant association of governance with earnings quality. This relationship is significant whether any of the proxy is taken for study. If the governance mechanism is good, it results in less earnings smoothness. Also it makes earnings more persistent, predictable and causes low value relevance.

The results of this study are in line with the finding of Beyer et al. (2019) who argued that EQ alone has no meaning but it works is some specific settings, so earnings quality is good to study in accordance with decisions depending on director's links with political parties.

Our study show that politically connected firms have low earnings quality. Political affiliations of members of board weakens the monitoring and governance mechanism of Pakistani listed firms. The study is contributing to two dimensions of finance literature. One is to the field of corporate governance and secondly to the conventional finance studies relating to earnings quality.

Firstly, it adds to the Corporate Governance literature by supporting principal-agent relationship that political connections of directors affect corporate performance. Secondly, it adds to the dimension that above channel results in low performance of the firm if board of directors have any kind of direct or indirect political affiliation and it lasts for several years. More importantly it is adding to existing literature by presenting a detailed analysis of effect of political connections on manipulating the earning numbers for presenting better profit picture of the firm. It is adding to the theoretical literature by providing an insight that political affiliations of directors provide unfair incentives to manipulate earnings hence supporting agency theory perspective.

These management activities are considered as one of the main causes of financial crisis (Marchini et al., 2018). This crisis was actually a question on internal control systems of the firms in 2002 and even after 20 years of effort in governance mechanism, it is still in same condition. Firms with political affiliation involve more in

accrual earning manipulations than real earnings management to improve financial numbers (Kumari and Pattanayak, 2017). Relating this problem with current economic situation it seems clear that in existing economic crunch Pakistani companies are facing financial problems. Local and foreign investors would not invest in high risks, so companies have to present better picture of their accounts under the influence of political affiliations.

Based on the empirical outcomes of the study, it can be argued that Pakistani corporate culture has not a satisfactory investor protection mechanism. They have high information asymmetry and when investor's analyses corporate information, true disclosure of such information will be helpful in analyzing performance by investors and financial analysts, ultimately be represented in stock market. The significant results are providing an insight that corporate finance decisions are dependent on board associations. Therefore board of directors should be considered as an independent factor in making investment decisions. The study is equally useful for academicians, investors and regulators. Overall the results of this study can add value for improving quality of corporate governance and earnings quality system in Pakistan.

5.2 Policy Implications

As explained earlier that every variable works in specific setting, this paper explains the role of good quality boards and political affiliations in determining manipulations in accounting records. The study is intended to provide basic guidelines to policy makers to select directors according to the specifications provided in code of corporate governance and considering the political background or associations. An efficient monitoring by an effective board can correlate the performance accordingly.

The findings of this study will be helpful for stakeholders and investors to analyze the financial reports of politically connected quality board firms as they show earning manipulations even after the implementation of code of corporate governance. Secondly, the results will be helpful for supervisory and regulatory bodies in improving financial reporting quality.

This study is presenting an analysis with empirical evidence that board of directors are clearly associated in determining quality of earnings and firm performance in Pakistan. This study is important in regard that it is providing a result that if quality of board is good then it lowers the need for accrual accounting as policies will be effective and passed by experienced individuals.

The study is equally important from investor's perspective that Board of Directors should be selected on the basis of described characteristics so that corporate governance can be implemented in a better way whose ultimate goal is to protect the rights of stakeholders and increase the performance of the firm. The study is equally useful for academicians, investors and regulators to determine the board quality characteristics.

5.3 Future Directions

In this part of the study, there are some suggestions presented for future research directions in the areas of earnings quality, board of director's quality, political affiliations and firm performance. Despite the significant contribution made by the study, there are some limitations of the study which can be addressed in future studies. First, the study is limited to data concerning an emerging economy so there are chances of different results in other emerging and developed economies. A comprehensive study of different economies can be done by applying the same model.

Secondly, number of firms can be increased and sector wise analysis can also be done for future empirical research. Additionally, although the selection of firms and data collection is done with great consideration, it can be subject to some measurement errors, due to small sample size and limited available data in company's director's report and company's websites.

Additionally, although the measures for identifying board quality is analyzed with great theoretical research, it can be subject to some measurement errors, therefore it is recommended to further add and improve the parameters for identifying board of director's quality.

These future directions are as under:

- The current study is about the non-financial sector of the firm, so it can be studied in regards to financial sector as well.
- To study this effect time period can be extended for confirming the relationship of these variables studied in this research.
- In creating board of director's quality index, other characteristics can also be incorporated.
- Also this moderation effect of board of directors' quality and political connections can be studied in comparison with financial and non-financial firms.
- The same model can be applied to cross country studies provided if data of characteristics of board of directors is available.
- The firms can be separated industry wise and sector wise to get more comprehensive results about the performance of Pakistani listed firms.

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Annexure-I

Table 5.1: Annexure-1

Rubber stamp board	This board simply approves whatever proposal or resolution is put forward by the executive directors or more particularly the chairman of the board
Good old boys board	It comprises of old friends of the chairman who simply meet at exotic places for board meetings but actually talk about good old days rather than conduct of company's business
Paper board	It exists only on paper and plays no role in the company including wives and daughters of principal shareholders of the company
Trophy board	This board comprises of people who have a big name in the society but have no acumen for conducting a company's business.

Annexure-II

PART II

Statutory Notifications (S. R. O.)

GOVERNMENT OF PAKISTAN

SECURITIES AND EXCHANGE COMMISSION OF PAKISTAN

Islamabad, the ______November, 2017

NOTIFICATION

SRO ________ 2017.- In exercise of powers conferred under Section 156 read with section 512 of the Companies Act 2017 (XIX of 2017) thereof and having been previously published in the official Gazette vide Notification No. S.R.O. 254(I)/2017 dated August 31, 2017, the Securities and Exchange Commission is pleased to notify the following Regulations, namely:-

Chapter 1

Preliminary

1. **Short Title and Commencement.-** (1) These regulations shall be called Listed Companies (Code of Corporate Governance) Regulations, 2017.

(2) These Regulations shall apply to listed companies and to all other entities, to the extent applicable, where the statutes and underlying licensing requirements require such entities to comply with these Regulations.

(3) They shall come into force for the period starting after December 31, 2017.

2. **Definitions. –** Unless otherwise specified, words and expressions used but not defined in these regulations shall have the same meaning as assigned to them in the Companies Act 2017 ("the Act") and the Securities and Exchange Commission of Pakistan Act, 1997 (XLII of 1997).

Chapter II

Number of Directorship and Composition of Board

3. **Number of Directorship.-** No person shall be elected or nominated or hold office as a director of a listed company including as an alternate director of more than five listed companies simultaneously:

Provided that while calculating this limit, the directorship in the listed subsidiaries of a listed holding company shall be excluded.

Provided further that the said limit on directorship shall be effective when the board shall be reconstituted not later than expiry of its current term or one year of the effective date of these Regulations, whichever is earlier.

4. **Diversity in Board**.- The board of directors shall comprises of members having the core competencies, diversity, requisite skills, knowledge, experience and fulfils any other criteria relevant in the context of the company's operations.

5. **Representation of Minority shareholders**.- The minority members as a class shall be facilitated to contest election of directors by proxy solicitation, for which purpose, the listed companies shall:

   a. annex to the notice issued under section 159 (4) of the Act, a statement by a candidate from among the minority shareholders who seeks to contest election to the board of directors, such statement shall include a profile of the candidate(s);
   b. provide information regarding members and shareholding structure to the candidate(s); and
   c. on a request by the candidate(s) and at the cost of the company, annex to the notice issued under section 159 (4) of the Act an additional copy of proxy form duly filled in by such candidate(s);

6. Independent Director.- (1) The independent directors of each listed company shall not be less than two members or one third of the total members of the board, whichever is higher:

Provided that for the purpose of electing independent directors, the board shall be reconstituted not later than expiry of its current term pursuant to effective date of these Regulations.

(2) Every independent director shall submit alongwith his consent to act as director, a declaration to the company that he qualifies the criteria of independence notified under the Act. Every independent director shall give such declaration to chairman of board at first meeting in every financial year as well as on an event of any change affecting his independence.

7. Female Director.- The board of directors shall have at least one female director when it is next reconstituted not later than expiry of its current term or within the next one years from the effective date of these Regulations, whichever is earlier.

8. Executive Director.- The executive directors, including the chief executive officer, shall not be more than one third of its board of directors.

Explanation: Executive director means a director who devotes the whole or substantially the whole of his time (whether paid or not) to the operations of the company.

9. **Chairman of Board**.- The Chairman and the chief executive officer of a listed company, by whatever name called, shall not be the same person. The chairman shall be elected subject to such terms and conditions and responsibilities as provided under Section 192 of the Act and these Regulations.

Chapter III
Responsibilities of Board of Directors and its members

10. (1) In exercise of powers under Section 183 of the Act and in terms of Section 204 of the Act, the board of directors of a listed company shall carry out its fiduciary duties with a sense of objective judgment and in good faith in the best interests of the company and its stakeholders.

(1A) The board of directors is responsible for adoption of corporate governance practices by the Company and monitoring effectiveness of such practices and the members of board shall ensure to apply high ethical standards in performing their responsibilities.

(2) The board of directors is responsible for the governance of risk and for determining the company's level of risk tolerance by establishing risk management policies. The board shall undertake at least annually, an overall review of business risks to ensure that the management maintains a sound system of risk identification, risk management and related systemic and internal controls to safeguard assets, resources, reputation and interest of the Company and shareholders.

(3) The board of directors of a listed company shall ensure that:

(i) a vision and/or mission statement, monitoring the effectiveness of the company's governance practices and overall corporate strategy for the company is prepared, adopted and reviewed as and when deemed appropriate by the board.

(ii) a formal code of conduct or code of ethics is in place and is adopted that promotes ethical culture in the company and prevents conflict of interest in their capacity as member of the board, senior management and other employees. The board shall take appropriate steps to disseminate code of conduct throughout the company along with supporting policies and procedures and these shall be put on the company's website;

(iii) adequate policy, systems and controls are in place for communication and disclosure with stakeholders, identification and redressal of grievances and queries of shareholders/ investors and complaints arising from unethical practices;

(iv) a system of sound internal control is established, which is effectively implemented and maintained at all levels within the company;

(v) a formal and effective mechanism is put in place for an annual evaluation of the board's own performance, members of board and of its committees;

(va) formal mechanism shall be in place for selecting, compensating, monitoring and, when necessary, replacing senior executives and overseeing succession planning and the remuneration of key executives and board may be aligned with the long term interests of the company and its shareholders;

(vi) the decisions on the following material transactions or significant matters are documented by a resolution passed at a meeting of the board:

a. investment and disinvestment of funds where the maturity period of such investments is six months or more, except in the case of banking companies, non-banking finance companies and insurance companies

b. determination of the nature of loans and advances made by the listed company and fixing a monetary limit thereof, except for banking companies

(vii) the board of directors shall define the level of materiality, keeping in view the specific circumstances of the company and the recommendations of any technical or executive sub-committee of the board that may be set up for the purpose;

(4) The board of directors shall maintain a complete record of particulars of the significant policies along with their date of approval or updating. The significant policies may include but are not limited to the following:

a) governance of risks and internal control measures;
b) human resource management including preparation of a succession plan;
c) remuneration policy for non-executive directors including independent directors;
d) procurement of goods and services
e) code of ethics, managing conflict of interest of management and board members, communication policy and investors'/shareholders' relations;
f) marketing
g) determination of terms of credit and discount to customers
h) write-off of bad/doubtful debts, advances and receivables
i) sale and lease of assets, undertaking, capital expenditure, planning and control
j) investments and disinvestment of funds
k) debt coverage
l) determination and delegation of financial powers
m) transactions or contracts with associated companies and related parties
(n) environmental, social and governance (ESG) including health and safety aspects in business strategies that promote sustainability. This includes but is not limited to corporate social responsibility

(CSR) initiatives and other philanthropic activities, donations / contributions to charities and other social causes; and(o) whistle blowing policy, by establishing a mechanism to receive, handle complaints in a fair and transparent manner while providing protection to the complainant against victimization.

(5) The Chairman of the Board shall, at the beginning of term of each directors, issue letter to directors setting out their role, obligations, powers and responsibilities in accordance with the Act and listed company's Articles of Association, their remuneration and entitlement.

(6) All directors of a listed company shall attend its general meeting(s), (ordinary and extra-ordinary) unless precluded from doing so due to any reasonable cause.

Chapter IV

Meeting of Board

11. Agenda and discussion in meetings.- The chairman shall set the agenda of the meeting of the board and ensure that reasonable time is available for discussion of the same. All written notices and relevant material, including the agenda, of meetings shall be circulated at least seven days prior to the meetings, except in the case of emergency meetings, where the notice period may be reduced or waived.

12. Minutes of meeting;- The chairman shall ensure that the minutes of meetings of the board of directors are kept in accordance with the requirements of Section 178 and 179 of the Act. The company secretary shall be secretary to the board.

Provided that where a director of a listed company is of the view that his dissenting note has not been satisfactorily recorded in the minutes of a meeting, the matter may be referred to the company secretary for appending such note to the minutes. If the company secretary fails to do so, the director may file an objection with the Commission in the form of a statement to that effect within 30 days of the date of confirmation of the minutes of the meeting.

13. Attendance at meeting.- The chief financial officer and company secretary of a listed company or in their absence, the nominee, appointed by the board, shall attend all meetings of the board of directors.

Provided that the chief financial officer and company secretary shall not attend such part of board meeting wherein agenda item relates to consideration of their performance or terms and conditions of their service or when, in the opinion of the board, their presence in the meeting on any agenda item is likely or may tend to impair the organizational discipline and harmony of the company.

Chapter V

Issues to be placed for decision of Board of Directors

14. Significant issues.- The chief executive officer of the listed company shall place significant issues for the information, consideration and decision, as the case may be, of the board of directors or its committees that include but are not limited to the following:

(i) As soon as chief executive officer foresees risk of default concerning obligations on any loans (including penalties and other dues to a creditor, bank or financial institution or default in payment of public deposit), TFCs, Sukuk or any other debt instrument, the same shall be brought to the attention of board;

(ii) annual business plan, cash flow projections, forecasts and strategic plan;

(iii) budgets including capital, manpower and overhead budgets, along with variance analysis;

(iv) matters recommended and/or reported by the audit committee and other committees of the board;

(v) quarterly operating results of the listed company as a whole and in terms of its operating divisions or business segments;

(vi) internal audit reports, including cases of fraud, bribery, corruption, or irregularities of material nature;

(vii) management letter issued by the external auditors;

(viii) details of joint venture or collaboration agreements or agreements with distributors, agents etc.;

(ix) promulgation of or amendment to a law, rule or regulation, applicability of financial reporting standard and such other matters as may affect the company and the status of compliance therewith;

(x) status and implications of any law suit or proceedings (show cause notice, demand or prosecution notice) of material nature, filed by or against the listed company;

(xi) failure to recover material amounts of loans, advances, and deposits made by the listed company, including trade debts and inter corporate finance;

(xii) any significant accidents, fatalities, dangerous occurrences and instances of pollution and environmental problems involving the listed company;

(xiii) significant public or product liability claims made or likely to be made against the listed company, including any adverse judgment or order made on the conduct of the listed company or of another company that may bear negatively on the company;

(xiv) report on governance, risk management and compliance issues. Risks to be considered shall include reputational risk and shall address risk analysis, risk management and risk communication;

(xv) disputes with labor and their proposed solutions, any agreement with the labor union or collective bargaining agent and any charter of demands on the listed company;

(xvi) reports on /synopsis of issues and information pursued under the whistle blowing policy, clearly disclosing how such matters were dealt with and finally resolved or concluded;

(xvii) implementation of environmental, social and governmental and health and safety business practices including report on corporate social responsibility activities and status of adoption/compliance of corporate social responsibility (Voluntary) Guidelines 2013 or any other regulatory framework as applicable;

(xviii) payment for goodwill, brand equity or intellectual property;

(xix) sale of assets, investments and interest in subsidiaries and undertakings, of material amount or significant nature, which is not in the ordinary course of business; and

(xx) quarterly details of foreign exchange exposures and the safeguards taken by management against adverse exchange rate movement, if material.

15. Related party transactions.- (1) The details of all related party transactions shall be placed periodically before the Audit Committee of the company and upon recommendations of the audit committee the same shall be placed before the board for review and approval.

Provided where majority of the directors are interested in such transactions, the matter shall be placed before the general meeting for approval.

(2) The related party transactions, not executed at arm's length price, shall also be placed separately at each board meeting along with necessary justification on recommendation of the Audit Committee of the listed company. The requirements of Section 208 of the Act shall be complied by the board for approval of such transactions.

16. Conflict of Interest.- For the purpose of consideration and decision by the board of directors on any agenda item, or in respect of any other matter, if any director has a conflict of interest therein in terms of the Act, then in addition to the provisions of section 207 of the Act and notwithstanding anything contained in the articles of association of a listed company, the directors shall ensure that the quorum of the meeting of the board shall not be deemed to be present unless at least two independent directors are also present at such meeting in person or through video link when such matter comes up for the first time for consideration of the board.

Chapter VI

Remuneration of Directors

17. Formal Policy.- The board of directors shall have in place a formal policy and transparent procedure for fixing the remuneration packages of individual directors for attending meetings of the board and its committees.

18. Determination of remuneration.- (1)No director shall determine his own remuneration. Levels of remuneration shall be appropriate and commensurate with the level of responsibility and expertise, to attract and retain directors needed to govern the company successfully, giving due consideration to performance evaluation (as applicable) and to encourage value addition. However, it shall not be at a level that could be perceived to compromise their independence.

(2) The process adopted for determination of director's remuneration shall comply with the provisions of the Act and the Company's articles of association:

Provided that if the company's articles of association authorizes the board to determine director's remuneration, an independent consultant may be engaged to recommend an appropriate level of remuneration for consideration and approval of the board.

Chapter VII

Directors' Training Program

19. Directors' Orientation Program.- All listed companies shall make appropriate arrangements to carry out orientation courses for their directors to acquaint them with these Regulations, applicable laws, their duties and responsibilities to enable them to effectively govern the affairs of the listed company for and on behalf of shareholders.

20. Directors' Training.- (1) It shall be mandatory for all listed companies to ensure that:

a) by June 30, 2019, at least half of the directors on their boards;

b) by June 30, 2020 at least 75% of the directors on their boards; and

c) by June 30, 2021 all the directors on their boards have acquired the prescribed certification under any director training program offered by institutions, local or foreign, that meet the criteria specified by the Commission and approved by it.

(2) A newly appointed director on the board shall acquire, unless exempted or already in possession of the required certification, the directors training program certification within a period of one year from the date of appointment as a director on the board;

Provided that the Commission may grant exemption from the directors training program certification in the following cases, keeping in view the relevancy of qualification and experience of directors and based on such conditions as deemed appropriate,-

(i) a director having a minimum of 14 years of education and has 15 years of experience on board of listed company, local and/or foreign; or

(ii) an individual having at least 25 years of post-qualification experience in fields of law, audit, tax, finance, corporate affairs, regulatory or government sector experience and is a member of professional body of accountants whose qualification is recognized as equivalent to post graduate degree by HEC; or

(iii) an individual having atleast 30 years of experience in the fields of law, audit, tax, finance, corporate affairs, regulatory or government sector experience and has a postgraduate degree in the above mentioned fields from a university in Pakistan or equivalent recognized and approved by the Higher Education Commission of Pakistan (HEC).

(2) It shall be mandatory for every listed company to arrange training for:

a) atleast one female executive every year under the Directors' Training program from the year starting June 30, 2019

b) atleast one head of department every year under the Directors' Training program from the year starting June 30, 2021.

Chapter VIII

Chief Financial Officer, Company Secretary and Head of Internal Audit

21. **Approval.-** The board of directors shall determine appointment, remuneration, terms and conditions of employment or continued service of chief financial officer, company secretary and head of internal audit of listed companies.

22. **Removal.-** The removal of the chief financial officer, company secretary and head of internal audit of a listed company shall be made with the approval of the board of directors:

Provided that the head of internal audit may be removed upon recommendation of the audit committee.

Explanation: For this purpose, the term "removal" shall include non-renewal of contract.

23. **Qualification of chief financial officer**.- No person shall be appointed as or continue to hold position of the chief financial officer of a listed company unless:

a) he has at least three years of managerial experience in fields of audit or accounting or in managing financial or corporate affairs functions of a company and is a member of the Institute of Chartered Accountants of Pakistan or Institute of Cost and Management Accountants of Pakistan; or

b) he has at least five years of managerial experience in fields of audit or accounting or in managing financial or corporate affairs functions of a company and is either a member of professional body of accountants whose qualification is recognized as equivalent to post graduate degree by HEC or has a postgraduate degree in finance from a university in Pakistan or equivalent recognized and approved by the Higher Education Commission of Pakistan (HEC); or

c) he has atleast seven years of managerial experience in fields of audit or accounting or in managing financial or corporate affairs functions of a company and has a suitable degree from a university in Pakistan or abroad equivalent to graduate degree, recognized and approved by the Higher Education Commission of Pakistan (HEC). The Commission, on application from the company, shall determine the suitability of such candidate;

Provided that existing chief financial officer of a listed company having atleast fifteen years of experience on the same position in a listed company are exempt from qualification criteria above.

24. **Qualification of Internal Auditor.-** No person shall be appointed as or continue to hold position as the head of internal audit unless:

a) he/she has three years of relevant experience in audit or finance or compliance function and is a member of the Institute of Chartered Accountants of Pakistan or Institute of Cost and Management Accountants of Pakistan; or

b) he/she has five years of relevant experience in audit or finance or compliance function and:

i. is a Certified Internal Auditor; or
ii. is a Certified Fraud Examiner; or
iii. is a Certified Internal Control Auditor; or
iv. has a post graduate degree in business, finance from a university or equivalent recognized and approved by the Higher Education Commission of Pakistan (HEC) and is a member of a professional body relevant to such qualification, if applicable; or

c) he has atleast seven years of managerial experience in fields of audit or accounting or in managing financial or corporate affairs functions of a company and has a suitable degree from a university in Pakistan or abroad equivalent to graduate degree, recognized and approved by the Higher Education Commission of Pakistan (HEC). The Commission, on application from the company, shall determine the suitability of such candidate;

Provided that existing head of internal audit of a listed company having atleast fifteen years of experience on the same position in a listed company are exempt from qualification criteria above.

Explanation: the expression, "body of professional accountants" means

a) established in Pakistan, governed under a special enactment of the Federal Government as a self-regulatory organization managed by a representative National Council, and has a prescribed minimum criterion of examination and entitlement of membership of such body

b) established outside Pakistan and established under a special enactment in the country of its origin and which is a member of the International Federation of Accountants (IFAC).

25. Qualification of Company Secretary.- No person shall be appointed as the Company Secretary unless he holds the qualification as specified under the relevant Regulations by the Commission;

Provided that an individual shall not simultaneously hold the position of Company secretary and Chief financial officer in a listed company.

Chapter IX

Responsibility for Financial Reporting and Corporate Compliance

26. Financial statement endorsed by chief financial officer and chief executive officer.- The chief executive officer and the chief financial officer shall duly endorse the quarterly, half-yearly and annual financial

statements under their respective signatures prior to placing and circulating the same for consideration and approval of the board of directors.

27. **External Auditor**.- Chief executive officer and chief financial officer shall have the annual and interim financial statement (both separate and consolidated where applicable) initialed by the external auditors before presenting it to the audit committee and the board of directors for approval.

Chapter X
Committees of Board

28. **Audit Committee.- (1) Composition:** The audit committee shall be constituted by board of directors keeping in view the following requirements**:**

a) The board of directors of every listed company shall establish an audit committee of at least of three members comprising of non-executive directors and at least one independent director.
b) Chairman of the committee shall be an independent director, who shall not be the chairman of the board.
c) The board shall satisfy itself such that at least one member of the audit committee qualifies as "financially literate".

Explanation: Expression "financial literate" shall mean a person who is a member of a recognized body of professional accountants or has a post graduate degree in finance from a university or equivalent institution, either in Pakistan or abroad recognized by the Higher Education Commission of Pakistan or who has atleast ten (10) years of experience as audit committee members or atleast twenty (20) years of senior management experience in overseeing of financial, audit related matters.

d) The Audit Committee of a listed company shall appoint a secretary of the committee who shall either be the company secretary or head of internal audit.

(2) **Meeting**: The meeting of the audit committee shall be held as per the following requirements:

a) The audit committee of a listed company shall meet at least once every quarter of the financial year. These meetings shall be held prior to the approval of interim results of the listed company by its board of directors and after completion of external audit.
b) A meeting of the audit committee shall also be held, if requested by the external auditors or the head of internal audit.

c) The head of internal audit and external auditors represented by engagement partner or in his absence any other partner designated by the audit firm shall attend meetings of the audit committee at which issues, if any, relating to accounts and audit are discussed.

Provided that chief executive officer and the chief financial officer shall not attend any meeting of the audit committee except by invitation only.

Provided further that at least once a year, the audit committee shall meet the external auditors without the chief financial officer and the head of internal audit being present.

Provided further that at least once a year, the audit committee shall meet the head of internal audit and other members of the internal audit function without the chief financial officer and the external auditors being present.

(3) Terms of Reference: The board of directors of every listed company shall determine the terms of reference of the audit committee. The board of directors shall provide adequate resources and authority to enable the audit committee to carry out its responsibilities effectively. The terms of reference of the audit committee shall be explicitly documented and shall also include the following:

a) determination of appropriate measures to safeguard the listed company's assets;

b) review of annual and interim financial statements of the listed company, prior to their approval by the Board of Directors, focusing on:

   (i) major judgmental areas;

   (ii) significant adjustments resulting from the audit;

   (iii) going concern assumption;

   (iv) any changes in accounting policies and practices;

   (v) compliance with applicable accounting standards;

   (vi) compliance with these regulations and other statutory and regulatory requirements; and

   (vii) all related party transactions.

c) review of preliminary announcements of results prior to external communication and publication;

d) facilitating the external audit and discussion with external auditors of major observations arising from interim and final audits and any matter that the auditors may wish to highlight (in the absence of management, where necessary);

e) review of management letter issued by external auditors and management's response thereto;

f) ensuring coordination between the internal and external auditors of the listed company;

g) review of the scope and extent of internal audit, audit plan, reporting framework and procedures and ensuring that the internal audit function has adequate resources and is appropriately placed within the listed company;

h) consideration of major findings of internal investigations of activities characterized by fraud, corruption and abuse of power and management's response thereto;

i) ascertaining that the internal control systems including financial and operational controls, accounting systems for timely and appropriate recording of purchases and sales, receipts and payments, assets and liabilities and the reporting structure are adequate and effective;

j) review of the listed company's statement on internal control systems prior to endorsement by the board of directors and internal audit reports;

k) instituting special projects, value for money studies or other investigations on any matter specified by the board of directors, in consultation with the chief executive officer and to consider remittance of any matter to the external auditors or to any other external body;

l) determination of compliance with relevant statutory requirements;

m) monitoring compliance with the these regulations and identification of significant violations thereof;

n) review of arrangement for staff and management to report to audit committee in confidence, concerns, if any, about actual or potential improprieties in financial and other matters and recommend instituting remedial and mitigating measures;

o) recommend to the board of directors the appointment of external auditors, their removal, audit fees, the provision of any service permissible to be rendered to the listed company by the external auditors in addition to audit of its financial statements. The board of directors shall give due consideration to the recommendations of the audit committee and where it acts otherwise it shall record the reasons thereof.

p) consideration of any other issue or matter as may be assigned by the board of directors.

(3) **Reporting Procedure:** The secretary of audit committee shall circulate minutes of meetings of the audit committee to all members, directors, head of internal audit and where required to chief financial officer prior to the next meeting of the board. Where this is not practicable, the chairman of the Audit Committee shall communicate a synopsis of the proceedings to the board and the minutes shall be circulated immediately after the meeting of the board.

29. Human Resource and Remuneration Committee: **(1) Composition**: There shall be a human resource and remuneration committee of at least of three members comprising a majority of non-executive directors of whom atleast one member shall be an independent director. The chairman of the committee shall be an independent director. The chief executive officer may be included as a member of the committee.

(2) Meeting: The committee shall meet at least once in a financial year and may meet more often if requested by a member of the board, or committee itself or the chief executive officer. The head of human resource or any other person appointed by the board of directors may act as the secretary of the committee.

The chief executive officer (if not a member of the committee), head of human resource (if not the secretary to committee) or any other advisor or person may attend the meeting only by invitation. A member of committee shall not participate in the proceedings of the committee when an agenda item relating to his performance or review or renewal of the terms and conditions of his service comes up for consideration.

(3) **Terms of Reference:** The Terms of reference of committee shall be determined by the board of directors which may include the following:

i. recommend to the board for consideration and approval a policy framework for determining remuneration of directors and senior management preferably taking into consideration that such remuneration commensurate with the performance of the company and evaluation of board and management (as applicable). The definition of senior management will be determined by the board which shall normally include the first layer of management below the chief executive officer level;
ii. undertaking annually a formal process of evaluation of performance of the board as a whole, its members and its committees either directly or by engaging external independent consultant and if so appointed, a statement to that effect shall be made in the directors' report disclosing name, qualifications and major terms of appointment;
iii. recommending human resource management policies to the board;
iv. recommending to the board the selection, evaluation, development, compensation (including retirement benefits) and succession planning of chief operating officer, chief financial officer, company secretary and head of internal audit;
v. consideration and approval on recommendations of chief executive officer on such matters for key management positions who report directly to chief executive officer or chief operating officer; and
vi. where human resource and remuneration consultants are appointed, their credentials shall be known by the committee and a statement shall be made by them as to whether they have any other connection with the company.

30. Nomination Committee: The board may constitute a separate committee, designated as the nomination committee, of such number and class of directors, as it may deem appropriate in its circumstances. The nomination committee shall be responsible for considering and making recommendations to the Board in respect of the Board committees and the chairmanship of the Board committees. It is also responsible for keeping the structure, size and composition of the Board under regular review and for making recommendations to the Board with regard to any changes necessary. The terms of reference of nomination

committee shall be determined by the board of directors ensuring there is no duplication or conflict with matters stipulated under terms of reference of HR&R committee.

31. **Risk Management Committee:** The board may constitute the risk management committee, of such number and class of directors, as it may deem appropriate in its circumstances, to carry out a review of effectiveness of risk management procedures and present a report to the Board. The terms of reference of the committee may include the following:

a) Monitoring and review of all material controls (financial, operational, compliance);

b) Risk mitigation measures are robust and integrity of financial information is ensured; and

c) Appropriate extent of disclosure of company's risk framework and internal control system in Directors report.

Chapter XI

Internal Audit

32. **(1) Composition:** (a) There shall be an internal audit function in every listed company. The head of internal audit shall functionally report to the audit committee and administratively to the chief executive officer and his performance appraisal shall be done jointly by the Chairman of the audit committee and the chief executive officer.

(b) A director cannot be appointed, in any capacity, in the internal audit function to ensure independence of the internal audit function.

(c) The board shall ensure that the internal audit team comprises of experts of relevant disciplines in order to cover all major heads of accounts maintained by the company.

(2) **Functional profile:** (a) The listed company shall ensure that head of internal audit is suitably qualified, experienced and conversant with the company's policies and procedures.

(b) The internal audit function, wholly or partially, may be outsourced by the company to a professional services firm or be performed by the internal audit staff of holding company. In lieu of outsourcing, the company shall appoint or designate a fulltime employee other than chief financial officer, as head of internal audit holding equivalent qualification prescribed under these Regulations, to act as coordinator between firm providing internal audit services or holding company staff, as applicable and the board.

Provided that while outsourcing the function, the company shall not appoint its existing external auditors as internal auditors.

(c) All listed companies shall ensure that internal audit reports are provided for the review of external auditors. The auditors shall discuss any major findings in relation to the reports with the audit committee, which shall report matters of significance to the board of directors.

Chapter XII
External Audit

33. Terms of Appointment.- (1) No listed company shall appoint as external auditors, a firm of auditors, which has not been given a satisfactory rating under the Quality Control Review program of the Institute of Chartered Accountants of Pakistan and registered with Audit Oversight Board of Pakistan.

(2) No listed company shall appoint as external auditors, a firm of auditors which or a partner of which is non- compliant with the International Federation of Accountants' Guidelines on Code of Ethics, as adopted by the Institute of Chartered Accountants of Pakistan.

(3) The Board of Directors of a listed company shall recommend appointment of external auditors for a year and his remuneration, as suggested by the audit committee. The recommendations of the audit committee for appointment of an auditor or otherwise shall be included in the Directors' Report. In case of a recommendation for appointment of an auditor other than the retiring auditor, the reasons for the same shall be included in the Directors' Report.

(4) No listed company shall appoint its auditors to provide services in addition to audit except in accordance with these regulations and shall require the auditors to observe applicable International Federation of Accountants guidelines in this regard. The listed company shall ensure that the auditors do not perform management functions or make management decisions, responsibility for which remains with the board of directors and management of the listed company.

(5) No listed company shall appoint a person as an external auditor or a person involved in the audit of a listed company who is a close relative (spouse, parents, dependents and non-dependent children) of the chief executive officer, the chief financial officer, the head of internal audit, the company secretary or a director of the listed company.

(6) Every listed company shall require external auditors to furnish a management letter to its board of directors within 45 days of the date of audit report.

Provided that any matter deemed significant by the external auditor shall be communicated in writing to the board of directors prior to the approval of the audited accounts by the board of directors.

34. **Rotation of auditors**.- (1) All listed companies in the financial sector shall change their external auditors every five years.

Provided further that all inter related companies/ institutions, engaged in business of providing financial services shall appoint the same firm of auditors to conduct the audit of their accounts.

Explanation: Financial sector, for this purpose, means banks, non-banking financial companies (NBFC's), modarabas and insurance/ takaful companies.

(2) All listed companies other than those in the financial sector shall, at the minimum, rotate the engagement partner after every five years.

Chapter XIII
Reporting & Disclosure

35. **Directors' report.-** The quarterly unaudited financial statements of listed companies shall be published and circulated along with directors' review on the affairs of the listed company.

36. **Composition of Board**.- The board shall state in the Directors' Report the following :

Total number of Directors:

(a) Male:

(b) Female:

Composition:

(i) Independent Directors

(ii) Other Nonexecutive Directors

(iii) Executive Directors

37. **Committees of the Board**.- The names of members of board committees shall be disclosed in each Directors' Report of the listed company and companies may post brief synopsis of TORs of such committees on their website.

38. Director's remuneration.- (1) The Directors in their report to members shall state the remuneration policy of non-executive directors including independent directors, as approved by the board of directors. This includes disclosing the significant features and elements thereof. Listed companies are also encouraged to post on the company's web site the key elements of the directors' remuneration policy.

(2) The company's Annual Report shall contain details of aggregate amount of remuneration separately of executive and non-executive directors, including salary/fee, perquisites, benefits and performance-linked incentives etc. and companies may provide aforesaid details of remuneration of individual directors in annual report.

39. **Disclosure of significant policies on website**.- Company may post the key elements of its significant policies on its website including but not limited to the following:

a) communication and disclosure policy;

b) code of ethics;

c) risk management policy;

d) internal control policy;

e) whistle blowing policy;

f) corporate social responsibility/ sustainability/ environmental, social and governance (ESG) related policy.

40. Compliance Statement and Auditor Review.- (1) All listed companies shall publish and circulate a statement, as given under annexure A, along with their annual reports to set out the status of their compliance with the requirements of Regulations. The statement shall be specific and deemed to be supported by the necessary evidence held by the company making the said statement.

(2) All listed companies shall ensure that the statement of compliance is reviewed and certified by statutory auditors as per relevant Regulations specified by Commission. Statutory auditors of listed company shall ensure that any non-compliance with these Regulations is highlighted in their review report.

Chapter XIV

Compliance with Regulations

41. **Penalty for contravention of Regulations**: Whoever fails or refused to comply with, or contravenes any requirements of the Regulations, knowingly or willfully authorizes or permits such failure, refusal or contravention, in addition to any other liability under the Act, be punishable with penalty and in case of continuing failure, to a further penalty as provided under sub-section (2) of section 512 of the Act.

42. **Relaxation from requirements of Regulations**.-Where the Commission is satisfied that it is not practicable to comply with any of the requirements of the Regulations, it may, for reasons to be recorded, on the application of the company along with prescribed fee, relax the same subject to such conditions as it may deem fit.

Annexure A

Statement of Compliance with Listed Companies (Code of Corporate Governance) Regulations, 2017

Name of company ……………………………………………………………………………
Year ending……………………………………………………………………………………..

The company has complied with the requirements of the Regulations in the following manner:

1. The total number of directors are ____ as per the following:
   a. Male:
   b. Female:

2. The composition of board is as follows:
   a) Independent Directors
   b) Other Non-executive Director
   c) Executive Directors

3. The directors have confirmed that none of them is serving as a director on more than five listed companies, including this company (excluding the listed subsidiaries of listed holding companies where applicable).
4. The company has prepared a Code of Conduct and has ensured that appropriate steps have been taken to disseminate it throughout the company along with its supporting policies and procedures.
5. The board has developed a vision/mission statement, overall corporate strategy and significant policies of the company. A complete record of particulars of significant policies along with the dates on which they were approved or amended has been maintained.
6. All the powers of the board have been duly exercised and decisions on relevant matters have been taken by board/ shareholders as empowered by the relevant provisions of the Act and these Regulations.
7. The meetings of the board were presided over by the Chairman and, in his absence, by a director elected by the board for this purpose. The board has complied with the requirements of Act and the Regulations with respect to frequency, recording and circulating minutes of meeting of board.
8. The board of directors have a formal policy and transparent procedures for remuneration of directors in accordance with the Act and these Regulations.
9. The Board has arranged Directors' Training program for the following:
   (Names & Designation (if executives))

10. The board has approved appointment of CFO, Company Secretary and Head of Internal Auditincluding their remuneration and terms and conditions of employment and complied with relevant requirements of the Regulations.
11. CFO and CEO duly endorsed the financial statements before approval of the board.
12. The board has formed committees comprising of members given below:
    a) Audit Committee (Name of members and Chairman)
    b) HR and Remuneration Committee (Name of members and Chairman)
    c) Nomination Committee (if applicable) (Name of members and Chairman)
    d) Risk Management Committee (if applicable) (Name of members and Chairman)

13. The terms of reference of the aforesaid committees have been formed, documented and advised to the committee for compliance.
14. The frequency of meetings (quarterly/half yearly/ yearly) of the committees were as per following:
    a) Audit Committee
    b) HR and Remuneration Committee
    c) Nomination Committee (if applicable)
    d) Risk Management Committee (if applicable)

15. The board has set up an effective internal audit function/ or has outsourced the internal audit function to ……….. who are considered suitably qualified and experienced for the purpose and are conversant with the policies and procedures of the company.
16. The statutory auditors of the company have confirmed that they have been given a satisfactory rating under the quality control review program of the ICAP and registered with Audit Oversight Board of Pakistan, that they or any of the partners of the firm, their spouses and minor children do not hold shares of the company and that the firm and all its partners are in compliance with International Federation of Accountants (IFAC) guidelines on code of ethics as adopted by the ICAP.
17. The statutory auditors or the persons associated with them have not been appointed to provide other services except in accordance with the Act, these regulations or any other regulatory requirement and the auditors have confirmed that they have observed IFAC guidelines in this regard.
18. We confirm that all other requirements of the Regulations have been complied with.

____

Signature (s)
(Name in block letters)
Chairman

Annexure-III

GOVERNMENT OF PAKISTAN
SECURITIES AND EXCHANGE COMMISSION OF PAKISTAN
-.-.-

Islamabad, the 5th December, 2018

NOTIFICATION

S.R.O. 1475 (I)/2018.- In exercise of the powers conferred by section 512, read with sections 156, of the Companies Act, 2017 (XIX of 2017), the Securities and Exchange Commission is pleased to notify the following amendments to the Listed Companies (Code of Corporate Governance) Regulations, 2017, the same having been previously published in the official Gazette vide Notification S.R.O. 1319(I)/2018, dated November 02, 2018, as required under proviso to sub-section (1) of the said section 512, namely:-

In the aforesaid Regulations,-

1. In regulation 10,-

(a) after sub-regulation (1), the following new sub-regulation shall be inserted, namely:-

"(1A) The board of directors is responsible for adoption of corporate governance practices by the company and monitoring effectiveness of such practices and the members of board shall ensure to apply high ethical standards in performing their responsibilities.";

(b) in sub-regulation (3),-

(i) in clause (i), after the expression "mission statement" the expression ", monitoring the effectiveness of the company's governance practices" shall be inserted;

(ii) in clause (ii), for the expression "code of conduct is in place" the expression "code of conduct or code of ethics is in place and is adopted" shall be substituted;

(iii) for clause (iii), the following shall be substituted, namely:-

"(iii) adequate policy, systems and controls are in place for communication and disclosure with stakeholders, identification and redressal of grievances and queries of shareholders/ investors and complaints arising from unethical practices;"; and

(iv) after clause (v) the following new clause shall be inserted, namely:-

"(va) formal mechanism shall be in place for selecting, compensating, monitoring and, when necessary, replacing senior executives and overseeing succession planning and the remuneration of key executive and board may be aligned with the long term interests of the company and its shareholders;";

(c) in sub-regulation (4),-

(i) for clause (c), the following shall be substituted, namely:-

"(c) remuneration policy for non-executive directors including independent directors;"; and

(ii) for clause (e), the following shall be substituted, namely:-

"(e) code of ethics, managing conflict of interest of management and board members, communication policy and investors'/shareholders' relations;";

2. in regulation 18, in sub-regulation (1), after the words "company successfully" the expression "giving due consideration to performance evaluation (as applicable)" shall be inserted";

3. in regulations 20, in sub-regulations (2), for the proviso, the following shall be substituted, namely:-

"Provided that the Commission may grant exemption from the directors training program certification in the following cases, keeping in view the relevancy of qualification and experience of directors and based on such conditions as deemed appropriate,-

(i) a director having a minimum of 14 years of education and has 15 years of experience on board of listed company, local and/or foreign; or

(ii) an individual having at least 25 years of post-qualification experience in fields of law, audit, tax, finance, corporate affairs, regulatory or government sector experience and is a

member of professional body of accountants whose qualification is recognized as equivalent to post graduate degree by HEC; or

(iii) an individual having atleast 30 years of experience in fields of law, audit, tax, finance, corporate affairs, regulatory or government sector experience and has a postgraduate degree in the above mentioned fields from a university in Pakistan or equivalent recognized and approved by the Higher Education Commission of Pakistan (HEC).";

4. in regulation 21, after the words "conditions of employment" the words "or continued service" shall be inserted;

5. in regulation 23,-

(a) after the words "appointed as" appearing at the beginning, the words "or continue to hold position of" shall be added;

(b) in clause (c), for the full stop (.) at the end, a semi colon shall be substituted and thereafter the following proviso shall be added:-

"Provided that existing chief financial officer of a listed company having atleast fifteen years of experience on the same position in a listed company are exempt from qualification criteria above.";

6. in regulation 24,-

(a) after the words "appointed as" appearing at the beginning, the words "or continue to hold position of" shall be added; and

(b) in clause (c), for the full stop (.) at the end, a semi colon shall be substituted and thereafter the following proviso shall be added:-

"Provided that existing head of internal audit of a listed company having atleast fifteen years of experience on the same position in a listed company are exempt from qualification criteria above.";

7. in regulation 25, for the full stop at the end a colon shall be substituted and thereafter the following proviso shall be added, namely:-

"Provided that an individual shall not simultaneously hold the position of Company secretary and Chief financial officer in a listed company."

8. in regulation 28, in sub-regulation (1), in clause (c), for the Explanation, the following shall be substituted, namely:-

   "Explanation:- the expression "financial literate" shall mean a person who is a member of a recognized body of professional accountants or has a post graduate degree in finance from a university or equivalent institution, either in Pakistan or abroad recognized by the Higher Education Commission of Pakistan or who has atleast ten years of experience as audit committee members or atleast twenty years of senior management experience in overseeing of financial, audit related matters.";

9. in regulation 29, in sub-regulation (3),-

   (i) for clause (i), the following shall be substituted, namely:-

   "(i) recommend to the board for consideration and approval a policy framework for determining remuneration of directors and senior management preferably taking into consideration that such remuneration commensurate with the performance of the company and evaluation of board and management (as applicable). The definition of senior management will be determined by the board which shall normally include the first layer of management below the chief executive officer level;"; and

   (ii) in clause (ii), after the expression "board as a whole" the expression " ,its members" shall be added;

   (iii) in clause (iv), after the expression "(including retirement benefits), the expression "and succession planning" shall be added;

10. in regulation 32, sub-regulation (2), clause (b), after the words "internal audit service" the words "or holding company staff, as applicable" shall be added;";

11. in regulation 37, after the expression " each Directors' Report of the listed company" the expression "and companies may post brief

synopsis of TORs of such committees on their website." shall be added;

12. in regulation 38, sub-regulation (2), after the words "performance-linked incentives etc." the expression " and companies may provide aforesaid details of remuneration of individual directors in annual report."; and

13. for regulation 39, the following shall be substituted, namely:-

"**39. Disclosure of significant policies on website**.- Company may post the key elements of its significant policies on its website including but not limited to the following,-

(a) communication and disclosure policy;
(b) code of ethics;
(c) risk management policy;
(d) internal control policy;
(e) whistle blowing policy;
(f) corporate social responsibility/ sustainability/ environmental, social and governance (ESG) related policy.".

[No. CSD/MISC/CCG104/2016]

(Bilal Rasul)
Secretary to the Commission